CDAR2\_IG\_HAIRPT\_R4\_D1\_Vol2\_Templates\_and\_Supporting



**HL7 CDA® R2 Implementation Guide:**

**NHSN Healthcare Associated Infection (HAI) Reports**

**Release 4, STU 1 - US Realm**

**Volume 2 — Templates and Supporting**

June 2021

**HL7 STU Release**

**Sponsored by:  
Structured Documents Work Group**

**National Healthcare Safety Network (NHSN)**

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# Document-Level Templates

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| Document Type | Required Sections | Optional Sections |
| --- | --- | --- |
| [Outpatient Procedure Component Denominator for Procedure Report](#D__Outpatient_Procedure_Component_Denom) urn:hl7ii:2.16.840.1.113883.10.20.5.56:2019-04-01 | [Procedure Details Section in an OPC Denominator for Procedure](#S_Procedure_Details_Section_in_an_OPC_D) [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) | [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Antimicrobial Resistance Option (ARO) Summary Report (V3)](#D_ARO_Summary_V3) urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01 | [Summary Data Section (ARO) (V3)](#S_Summary_Data_Section_ARO_V3) | [Report No Events Section](#S_Report_No_Events_Section) [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Antimicrobial Use (AUP) Summary Report (V2)](#D_Antimicrobial_Use_AUP_Summary_Report_) urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01 | [Summary Data Section (AUP) (V2)](#S_Summary_Data_Section_AUP_V2) | N/A |
| [HAI AUR Antimicrobial Resistance Option (ARO) Report (V5)](#D_HAI_AUR_Antimicrobial_Resistance_V5) urn:hl7ii:2.16.840.1.113883.10.20.5.31:2020-04-01 | [Findings Section in an ARO Report (V4)](#S_Findings_Section_in_an_ARO_Report_V4) | N/A |
| [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) urn:hl7ii:2.16.840.1.113883.10.20.5.32:2021-01-01 | [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) [Infection Details Section in a BSI Report](#S_Infection_Details_Section_in_a_BSI_Re) [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) [COVID-19 Section (V2)](#S_COVID19_Section_V2) | [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [HAI Central-Line Insertion Practice Numerator Report (V2)](#D_HAI_CentralLine_Insertion_Practice_V2) urn:hl7ii:2.16.840.1.113883.10.20.5.36:2014-12-01 | [Infection Risk Factors Section in a CLIP Report (V2)](#S_Infection_Risk_Factors_Section_in_a_C) [Procedure Details Section in a CLIP Report](#S_Procedure_Details_Section_in_a_CLIP_R) | N/A |
| [HAI Evidence of Infection (Dialysis) Report (V6)](#D_HAI_Evidence_of_Infection_Dialysis_V6) urn:hl7ii:2.16.840.1.113883.10.20.5.37:2019-04-01 | [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)](#S_Risk_Factors_Section_in_an_Evidence_V2) [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) | [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) |
| [HAI Laboratory-Identified Organism (LIO) Report (V2)](#D_HAI_LaboratoryIdentified_Organism_LV2) urn:hl7ii:2.16.840.1.113883.10.20.5.38:2014-12-01 | [Findings Section in a LIO Report (V2)](#S_Findings_Section_in_a_LIO_Report_V2) [Encounters Section in a LIO Report (V2)](#S_Encounters_Section_in_a_LIO_Report_V2) | N/A |
| [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) urn:oid:2.16.840.1.113883.10.20.5.4.28 | N/A | N/A |
| [HAI Procedure Denominator Report (V2)](#D_HAI_Procedure_Denominator_Report_V2) urn:oid:2.16.840.1.113883.10.20.5.35.2 | [Procedure Details Section in a Procedure Report (V2)](#Procedure_Details_Section_in_a_Procedur) [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) | N/A |
| [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) urn:oid:2.16.840.1.113883.10.20.5.4.27 | N/A | N/A |
| [HAI Surgical Site Infection Report (SSI) (V3)](#D_HAI_Surgical_Site_Infection_Report_V3) urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2021-01-01 | [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) [COVID-19 Section (V2)](#S_COVID19_Section_V2) | N/A |
| [HAI Urinary Tract Infection Numerator Report (UTI) (V2)](#D_HAI_Urinary_Tract_Infection_Num_V2) urn:hl7ii:2.16.840.1.113883.10.20.5.34:2021-01-01 | [Infection Risk Factors Section in a UTI Report](#S_Infection_Risk_Factors_Section_in_a_U) [Infection Details Section in a UTI Report](#S_Infection_Details_Section_in_a_UTI_Re) [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) [COVID-19 Section (V2)](#S_COVID19_Section_V2) | N/A |
| [Healthcare Associated Infection Report](#D_Healthcare_Associated_Infection_Repor) urn:oid:2.16.840.1.113883.10.20.5.4.25 | N/A | N/A |
| [Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report](#D_Healthcare_Personnel_Influenza_Vaccin) urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01 | [Summary Data Section (HP-FLU)](#S_Summary_Data_Section_HPFLU) | [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Hemovigilance (HV) Summary Report (V2)](#D_Hemovigilance_HV_Summary_Report_V2) urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01 | [Summary Data Section (HV) (V2)](#S_Summary_Data_Section_HV_V2) | N/A |
| [Intensive Care Unit (ICU) Summary Report (V3)](#D_Intensive_Care_Unit_ICU_Summary_V3) urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01 | [Summary Data Section](#S_Summary_Data_Section) | [Report No Events Section](#S_Report_No_Events_Section) |
| [Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report](#D_Late_Onset_SepsisMeningitis_Denominat) urn:hl7ii:2.16.840.1.113883.10.20.5.58:2019-04-01 | [Risk Factors Section in a LOS/Men Denominator](#S_Risk_Factors_Section_in_a_LOSMen_Deno) [Encounters Section in a LOS/Men Denominator](#S_Encounters_Section_in_a_LOSMen_Denomi) | [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Late Onset Sepsis/Meningitis Event (LOS) Report (V2)](#D_Late_Onset_SepsisMeningitis_Event_V2) urn:hl7ii:2.16.840.1.113883.10.20.5.53:2019-04-01 | [Infection Details in Late Onset Sepsis Report](#S_Infection_Details_in_Late_Onset_Sepsi) [Risk Factors Section in a LOS/Men Event (V2)](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) [NHSN Comment Section](#S_NHSN_Comment_Section) | [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) |
| [Neonatal Intensive Care Unit (NICU) Summary Report (V3)](#D_Neonatal_Intensive_Care_Unit_NICU_V3) urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01 | [Summary Data Section (NICU) (V2)](#S_Summary_Data_Section_NICU_V2) | [Report No Events Section](#S_Report_No_Events_Section) |
| [Outpatient Procedure Component Denominator for Same Day Outcome Measures Report](#D_Outpatient_Procedure_Component_Denomi) urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01 | [Summary Data Section](#S_Summary_Data_Section) | [Report No Events Section](#S_Report_No_Events_Section) [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Outpatient Procedure Component Same Day Outcome Measures Event Report](#D_Outpatient_Procedure_Component_Same_D) urn:hl7ii:2.16.840.1.113883.10.20.5.54:2019-04-01 | [Same Day Outcome Measures Event Details Section](#S_Same_Day_Outcome_Measures_Event_Detai) | [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Outpatient Procedure Surgical Site Infection (SSI) Event Report](#D_Outpatient_Procedure_Surgical_Site_In) urn:hl7ii:2.16.840.1.113883.10.20.5.57:2019-04-01 | [Infection Details Section in an OPC SSI Report](#S_Infection_Details_Section_in_an_OPC_S) [Findings Section in an OPC SSI Report](#S_Findings_Section_in_an_OPC_SSI_Report) | [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Prevention Process and Outcome Measures (POM) Summary Report (V3)](#D_Prevention_Process_and_Outcome_V3) urn:hl7ii:2.16.840.1.113883.10.20.5.43:2018-04-01 | [Summary Data Section (POM) (V2)](#S_Summary_Data_Section_POM_V2) | [Report No Events Section](#S_Report_No_Events_Section) |
| [Specialty Care Area (SCA) Summary Report (V3)](#D_Specialty_Care_Area_SCA_Summary_V3) urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01 | [Summary Data Section](#S_Summary_Data_Section) | [Report No Events Section](#S_Report_No_Events_Section) |
| [Vascular Access Type Report (VAT) Summary Report (V3)](#D_Vascular_Access_Type_Report_VAT_V3) urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01 | [Summary Data Section (VAT)](#S_Summary_Data_Section_VAT) | [Report No Events Section](#S_Report_No_Events_Section) [NHSN Comment Section](#S_NHSN_Comment_Section) |
| [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) urn:hl7ii:2.16.840.1.113883.10.20.5.51:2021-01-01 | [Infection Details Section in a VAE Report](#S_Infection_Details_Section_in_a_VAE_Re) [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) [Risk Factors Section in a VAE Report](#S_Risk_Factors_Section_in_a_VAE_Report) [COVID-19 Section (V2)](#S_COVID19_Section_V2) | [NHSN Comment Section](#S_NHSN_Comment_Section) |

Healthcare Associated Infection Report

[ClinicalDocument: identifier urn:oid:2.16.840.1.113883.10.20.5.4.25 (open)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

This template records constraints on all NHSN Healthcare Associated Infection Reports (generic constraints). Further constraints are found in the specialization templates for single-patient and population summary reports, and in the templates for specific report types.  
Annotations before some constraints provide additional information for the implementer.  
Elements required by CDA that are not further constrained in this guide are not presented as HAI-specific constraints.  
Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Table 2: Healthcare Associated Infection Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.25) | | | | | |
| realmCode | 1..1 | SHALL |  | [86-18431](#C_86-18431) |  |
| @code | 1..1 | SHALL | CD | [86-18432](#C_86-18432) | US |
| typeId | 1..1 | SHALL |  | [86-18463](#C_86-18463) |  |
| @root | 1..1 | SHALL |  | [86-18464](#C_86-18464) | 2.16.840.1.113883.1.3 |
| @extension | 1..1 | SHALL |  | [86-18465](#C_86-18465) | POCD\_HD000040 |
| templateId | 1..1 | SHALL |  | [86-18460](#C_86-18460) |  |
| @root | 1..1 | SHALL |  | [86-18461](#C_86-18461) | 2.16.840.1.113883.10.20.5.4.25 |
| @extension | 0..0 | SHALL NOT |  | [86-18462](#C_86-18462) |  |
| id | 1..1 | SHALL |  | [86-18466](#C_86-18466) |  |
| @root | 0..1 | MAY |  | [86-18467](#C_86-18467) |  |
| @extension | 0..1 | MAY |  | [86-18468](#C_86-18468) |  |
| code | 1..1 | SHALL |  | [86-18433](#C_86-18433) |  |
| @code | 1..1 | SHALL |  | [86-18434](#C_86-18434) | 51897-7 |
| @codeSystem | 1..1 | SHALL |  | [86-27413](#C_86-27413) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [86-18435](#C_86-18435) |  |
| effectiveTime | 1..1 | SHALL |  | [86-18436](#C_86-18436) |  |
| confidentialityCode | 1..1 | SHALL |  | [86-18437](#C_86-18437) |  |
| @code | 1..1 | SHALL | CD | [86-18438](#C_86-18438) | urn:oid:2.16.840.1.113883.5.25 (HL7Confidentiality) = N |
| languageCode | 1..1 | SHALL |  | [86-18439](#C_86-18439) |  |
| @code | 1..1 | SHALL |  | [86-18440](#C_86-18440) | en-US |
| setId | 1..1 | SHALL |  | [86-18441](#C_86-18441) |  |
| versionNumber | 1..1 | SHALL |  | [86-18442](#C_86-18442) |  |
| recordTarget | 1..\* | SHALL |  | [86-18472](#C_86-18472) |  |
| author | 1..\* | SHALL |  | [86-18473](#C_86-18473) |  |
| custodian | 1..1 | SHALL |  | [86-18443](#C_86-18443) |  |
| assignedCustodian | 1..1 | SHALL |  | [86-18444](#C_86-18444) |  |
| representedCustodianOrganization | 1..1 | SHALL |  | [86-18445](#C_86-18445) |  |
| id | 1..1 | SHALL |  | [86-18446](#C_86-18446) |  |
| @root | 1..1 | SHALL |  | [86-18447](#C_86-18447) | 2.16.840.1.114222.4.3.2.11 |
| legalAuthenticator | 0..1 | SHOULD |  | [86-18474](#C_86-18474) |  |
| relatedDocument | 0..\* | MAY |  | [86-18469](#C_86-18469) |  |
| @typeCode | 1..1 | SHALL |  | [86-18470](#C_86-18470) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RPLC |
| parentDocument | 1..1 | SHALL |  | [86-28401](#C_86-28401) |  |
| id | 1..\* | SHALL |  | [86-28402](#C_86-28402) |  |
| component | 1..1 | SHALL |  | [86-18448](#C_86-18448) |  |
| structuredBody | 1..1 | SHALL |  | [86-18449](#C_86-18449) |  |
| component | 1..\* | SHALL |  | [86-18475](#C_86-18475) |  |

1. SHALL contain exactly one [1..1] realmCode (CONF:86-18431).
   1. This realmCode SHALL contain exactly one [1..1] @code="US" (CONF:86-18432).
2. SHALL contain exactly one [1..1] typeId (CONF:86-18463).
   1. This typeId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.1.3" (CONF:86-18464).
   2. This typeId SHALL contain exactly one [1..1] @extension="POCD\_HD000040" (CONF:86-18465).
3. SHALL contain exactly one [1..1] templateId (CONF:86-18460) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.4.25" (CONF:86-18461).
   2. SHALL NOT contain [0..0] @extension (CONF:86-18462).

CDA requires a ClinicalDocument/id element representing a unique identifier for the document. The id may be represented by either @root or @root plus @extension, so long as the resulting id is globally unique.

CDA provides id, setId, versionNumber, and relatedDocument elements to support succession management (document versioning).

The id element identifies the CDA document instance (the electronic file). It is independent of the setId and versionNumber elements.

1. SHALL contain exactly one [1..1] id (CONF:86-18466).
   1. This id MAY contain zero or one [0..1] @root (CONF:86-18467).
   2. This id MAY contain zero or one [0..1] @extension (CONF:86-18468).
2. SHALL contain exactly one [1..1] code (CONF:86-18433).
   1. This code SHALL contain exactly one [1..1] @code="51897-7" Healthcare Associated Infection Report (CONF:86-18434).
   2. This code SHALL contain exactly one [1..1] @codeSystem (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-27413).

The preferred title content for each report type is given with the constraints for each report type.

1. SHALL contain exactly one [1..1] title (CONF:86-18435).
2. SHALL contain exactly one [1..1] effectiveTime (CONF:86-18436).

CDA requires a confidentiality code that indicates the sensitivity of the document. All HAI submissions carry the same value of "normal". Note that this designation does not affect local policy on safeguarding confidentiality of patient-identifiable personal health information.

1. SHALL contain exactly one [1..1] confidentialityCode (CONF:86-18437).
   1. This confidentialityCode SHALL contain exactly one [1..1] @code="N" Normal (CodeSystem: HL7Confidentiality urn:oid:2.16.840.1.113883.5.25 STATIC) (CONF:86-18438).
2. SHALL contain exactly one [1..1] languageCode (CONF:86-18439).
   1. This languageCode SHALL contain exactly one [1..1] @code="en-US" (CONF:86-18440).
3. SHALL contain exactly one [1..1] setId (CONF:86-18441).
4. SHALL contain exactly one [1..1] versionNumber (CONF:86-18442).

CDA requires a recordTarget element that must contain a patientRole element. This is represented differently in single-person and population summary reports. See the templates for generic single-person and population summary reports for details of how to represent the patient or group subject.

1. SHALL contain at least one [1..\*] recordTarget (CONF:86-18472).

In a single-person report, the author may be software or may be a person in the role of infection control professional (ICP). In a population summary report, the author will be the software forming the message. The effect of the CDA Release 2.0 requirements is:  
An author element shall be present. The author element shall contain a time element that represents the time of authoring of the information, and an assignedAuthor element that represents the author of the information. The assignedAuthor element shall contain an id element.

When the report author is vendor software, it can record the Synthetic Data Set (SDS) Validation Id, or, if not participating in SDS, a software installation id. It can also record the vendor software name, the version and release of the software, and the vendor name. For further guidance, see the example at the end of this template.

1. SHALL contain at least one [1..\*] author (CONF:86-18473).

CDA requires that the document custodian be recorded. The NHSN is the custodian of NHSN HAI Reports.

1. SHALL contain exactly one [1..1] custodian (CONF:86-18443).
   1. This custodian SHALL contain exactly one [1..1] assignedCustodian (CONF:86-18444).
      1. This assignedCustodian SHALL contain exactly one [1..1] representedCustodianOrganization (CONF:86-18445).
         1. This representedCustodianOrganization SHALL contain exactly one [1..1] id (CONF:86-18446).
            1. This id SHALL contain exactly one [1..1] @root="2.16.840.1.114222.4.3.2.11" (CONF:86-18447).

CDA requires that a legalAuthenticator element be present if the document has been legally authenticated. Local policy may delegate the function of legal authentication to a device or system that generates the CDA document. In these cases, the legal authenticator must still be a person accepting responsibility for the document content, not the device or system. The effect of the CDA Release 2.0 requirements is:  
The legalAuthenticator element shall contain a time element that represents the time of authentication of the document, a signatureCode element where the value of @code is S, and an assignedEntity element that represents the authenticator of the document. The assignedEntity element shall contain an id element.  
HAI Reports are not signed reports and do not require a legalAuthenticator.

1. SHOULD contain zero or one [0..1] legalAuthenticator (CONF:86-18474).
2. MAY contain zero or more [0..\*] relatedDocument (CONF:86-18469).
   1. The relatedDocument, if present, SHALL contain exactly one [1..1] @typeCode="RPLC" replace (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-18470).
   2. The relatedDocument, if present, SHALL contain exactly one [1..1] parentDocument (CONF:86-28401).
      1. This parentDocument SHALL contain at least one [1..\*] id (CONF:86-28402).
         1. The value of id SHALL be populated with the ClinicalDocument/id of the document being replaced (CONF:86-28403).
   3. If versionNumber/@value is greater than 1, a relatedDocument element SHALL be present (CONF:86-18471).
3. SHALL contain exactly one [1..1] component (CONF:86-18448).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:86-18449).
      1. This structuredBody SHALL contain at least one [1..\*] component (CONF:86-18475).
      2. The structuredBody element SHALL contain a component element for each section required by the particular report type. Additional sections may be present, but their content will not be processed by NHSN (CONF:86-18450).

Figure 1: Software Author Example

<author>

<!-- The time the document was authored -->

<time value="20080701" />

<assignedAuthor>

<!-- root=vendor OID; extension may be the Synthetic Data Set (SDS)

Validation ID assigned by NHSN AUR subject matter expert (SME);

if not participating in SDS, vendor may use a software ID -->

<id root="2.111.111.111.10008" extension="SDS validation ID" />

<assignedAuthoringDevice>

<!-- Optional-Vendor software name -->

<manufacturerModelName>vendor software name</manufacturerModelName>

<!-- Optional-version and release of the software-->

<softwareName>vendor software version</softwareName>

</assignedAuthoringDevice>

<!-- Optional-Vendor Name -->

<representedOrganization>

<name>vendor name</name>

</representedOrganization>

</assignedAuthor>

</author>

HAI Population Summary Report Generic Constraints

[ClinicalDocument: identifier urn:oid:2.16.840.1.113883.10.20.5.4.28 (open)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

A Population Summary Report records summary data for a group, such as the patients in a particular ward, during a specified period. This report type differs in several ways from the HAI single-person reports.

These report types are used to record many different data sets. The basic structure of the body templates for this report type are:  
• A Summary Data Section:  
o A Summary Encounter records the location to which the data pertain.  
o Various Summary Data Observations record data as code-value pairs.

A population-summary report must conform to the Healthcare Associated Infection Report above. In addition:  
• The patient identifier (required by CDA) is recorded with a nullFlavor.  
• A participant element records that the subject of the report is a group.  
• A second participant element records the reporting facility. (The in-facility unit identifier and type to which the data pertain are recorded in the Summary Encounter Section of the document body.)  
• In the documentationOf/serviceEvent element,  
o The effectiveTime element records the first and last days of the period reported.  
o The code element records the type of summary data reported. This corresponds to the NHSN form type.  
The data set being reported is identified by a code in the CDA header; for example, the cdcNHSN concept “1887-9” identifies the data set “Summary data reporting Antimicrobial Usage”. The codes for these data sets are listed in value set NHSNPopulationSummaryReportTypeCode (2.16.840.1.114222.4.11.3595).

Note that a few data sets are stratified. For example, the NICU (Neonatal Intensive Care Unit) data set is stratified by birthweight; the Antimicrobial Usage data set is stratified by antimicrobial and by route of administration. The stratifying factor is recorded as a CDA element in the Summary Encounter or Summary Data Observation. For example, in an Antimicrobial Use report, the antimicrobial information is represented as a participant. The requirements for each data set are provided in the relevant Summary Data Observation.

Most of the concepts reported are defined for the NHSN protocol and are not expected to see widespread external use: the codes for these concepts come from the NHSN code system.  
Key encounter data:  
• Facility identifier is required. This represents the reporting facility; the location to which the data pertain, such as a unit, is recorded with the data in the Summary Encounter.  
• A code identifying the data set is required.  
• The period reported is required.

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Table 3: HAI Population Summary Report Generic Constraints Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22431](#C_86-22431) |  |
| @root | 1..1 | SHALL |  | [86-22432](#C_86-22432) | 2.16.840.1.113883.10.20.5.4.28 |
| recordTarget | 1..1 | SHALL |  | [86-22433](#C_86-22433) |  |
| patientRole | 1..1 | SHALL |  | [86-22434](#C_86-22434) |  |
| id | 1..1 | SHALL |  | [86-22435](#C_86-22435) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22436](#C_86-22436) | NA |
| participant | 1..1 | SHALL |  | [86-22437](#C_86-22437) |  |
| @typeCode | 1..1 | SHALL |  | [86-22438](#C_86-22438) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SBJ |
| @contextControlCode | 1..1 | SHALL | CS | [86-22439](#C_86-22439) | urn:oid:2.16.840.1.113883.5.1057 (HL7ContextControl) = OP |
| associatedEntity | 1..1 | SHALL |  | [86-22440](#C_86-22440) |  |
| @classCode | 1..1 | SHALL |  | [86-22441](#C_86-22441) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PRS |
| code | 1..1 | SHALL |  | [86-22442](#C_86-22442) |  |
| @code | 1..1 | SHALL |  | [86-22443](#C_86-22443) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 389109008 |
| participant | 1..1 | SHALL |  | [86-22444](#C_86-22444) |  |
| @typeCode | 1..1 | SHALL |  | [86-22445](#C_86-22445) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| associatedEntity | 1..1 | SHALL |  | [86-22447](#C_86-22447) |  |
| @classCode | 1..1 | SHALL |  | [86-22448](#C_86-22448) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC |
| id | 1..1 | SHALL |  | [86-22449](#C_86-22449) |  |
| @root | 1..1 | SHALL |  | [86-22450](#C_86-22450) |  |
| documentationOf | 1..1 | SHALL |  | [86-22451](#C_86-22451) |  |
| serviceEvent | 1..1 | SHALL |  | [86-22452](#C_86-22452) |  |
| @classCode | 1..1 | SHALL |  | [86-22453](#C_86-22453) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CASE |
| code | 1..1 | SHALL |  | [86-22454](#C_86-22454) | urn:oid:2.16.840.1.114222.4.11.3595 (NHSNPopulationSummaryReportTypeCode) |
| effectiveTime | 1..1 | SHALL |  | [86-22456](#C_86-22456) |  |
| low | 1..1 | SHALL |  | [86-22457](#C_86-22457) |  |
| high | 1..1 | SHALL |  | [86-22458](#C_86-22458) |  |

1. Conforms to [Healthcare Associated Infection Report](#D_Healthcare_Associated_Infection_Repor) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.25).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22431) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.4.28" (CONF:86-22432).
3. SHALL contain exactly one [1..1] recordTarget (CONF:86-22433).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:86-22434).
      1. This patientRole SHALL contain exactly one [1..1] id (CONF:86-22435).
         1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" not applicable (CONF:86-22436).
4. SHALL contain exactly one [1..1] participant (CONF:86-22437) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SBJ" Subject (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-22438).
   2. SHALL contain exactly one [1..1] @contextControlCode="OP" (CodeSystem: HL7ContextControl urn:oid:2.16.840.1.113883.5.1057 STATIC) (CONF:86-22439).
   3. SHALL contain exactly one [1..1] associatedEntity (CONF:86-22440).
      1. This associatedEntity SHALL contain exactly one [1..1] @classCode="PRS" Person (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:86-22441).
      2. This associatedEntity SHALL contain exactly one [1..1] code (CONF:86-22442).
         1. This code SHALL contain exactly one [1..1] @code="389109008" Group (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-22443).
5. SHALL contain exactly one [1..1] participant (CONF:86-22444) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-22445).
   2. SHALL contain exactly one [1..1] associatedEntity (CONF:86-22447).
      1. This associatedEntity SHALL contain exactly one [1..1] @classCode="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:86-22448).
      2. This associatedEntity SHALL contain exactly one [1..1] id (CONF:86-22449).

The value of @root must be the NHSN assigned Facility OID.

* + - 1. This id SHALL contain exactly one [1..1] @root (CONF:86-22450).

1. SHALL contain exactly one [1..1] documentationOf (CONF:86-22451).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:86-22452).
      1. This serviceEvent SHALL contain exactly one [1..1] @classCode="CASE" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22453).
      2. This serviceEvent SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNPopulationSummaryReportTypeCode](#NHSNPopulationSummaryReportTypeCode) urn:oid:2.16.840.1.114222.4.11.3595 DYNAMIC (CONF:86-22454).
      3. This serviceEvent SHALL contain exactly one [1..1] effectiveTime (CONF:86-22456).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-22457).
         2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:86-22458).
2. The author SHALL represent the software forming the message (CONF:86-22459).

Table 4: NHSNPopulationSummaryReportTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNPopulationSummaryReportTypeCode urn:oid:2.16.840.1.114222.4.11.3595  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of population summary report.),(Data Element Scope: A code describing the population category associated with the data being reported.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3595/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1657-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting outpatient procedure component events at a facility |
| 1879-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting catheter and ventilator use in a ICU/other |
| 1880-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting catheter and ventilator use in a SCA |
| 1881-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting catheter and ventilator use in a NICU |
| 1884-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting active surveillance testing (AST) |
| 1887-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting antimicrobial usage |
| 1891-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting MDRO and CDI LabID Event for LTCF |
| 2316-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting vascular access types for chronic hemodialysis patients |
| 2410-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting antimicrobial resistance patterns at a facility |
| 2543-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Hemovigilance module - monthly reporting denominator |
| ... | | | |

Antimicrobial Resistance Option (ARO) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 5: Antimicrobial Resistance Option (ARO) Summary Report (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Report No Events Section](#S_Report_No_Events_Section) (optional)  [Summary Data Section (ARO) (V3)](#S_Summary_Data_Section_ARO_V3) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The preferred title for the CDA document is “Denominator for Antimicrobial Resistance Option (ARO)”. The tables below show the data required at the time of publication.  
The ARO Report extends the simple pattern for Summary Encounter. Required data elements are recorded as entries within the Summary Encounter, with a specified location based on the protocol.

Table 6: Antimicrobial Resistance Option (ARO) Summary Report (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-28301](#C_4395-28301) |  |
| @root | 1..1 | SHALL |  | [4395-28302](#C_4395-28302) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-22969](#C_4395-22969) |  |
| @root | 1..1 | SHALL |  | [4395-2970](#C_4395-2970) | 2.16.840.1.113883.10.20.5.46 |
| @extension | 1..1 | SHALL |  | [4395-30544](#C_4395-30544) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-22971](#C_4395-22971) |  |
| documentationOf | 1..1 | SHALL |  | [4395-22972](#C_4395-22972) |  |
| serviceEvent | 1..1 | SHALL |  | [4395-22973](#C_4395-22973) |  |
| code | 1..1 | SHALL |  | [4395-22974](#C_4395-22974) |  |
| @code | 1..1 | SHALL |  | [4395-22975](#C_4395-22975) | 2410-9 |
| @codeSystem | 1..1 | SHALL |  | [4395-22976](#C_4395-22976) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [4395-22977](#C_4395-22977) |  |
| structuredBody | 1..1 | SHALL |  | [4395-22978](#C_4395-22978) |  |
| component | 1..1 | SHALL |  | [4395-22979](#C_4395-22979) |  |
| section | 1..1 | SHALL |  | [4395-22980](#C_4395-22980) | [Summary Data Section (ARO) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01](#S_Summary_Data_Section_ARO_V3) |
| component | 0..1 | MAY |  | [4395-30545](#C_4395-30545) |  |
| section | 1..1 | SHALL |  | [4395-30546](#C_4395-30546) | [Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01](#S_Report_No_Events_Section) |
| component | 0..1 | MAY |  | [4395-30547](#C_4395-30547) |  |
| section | 1..1 | SHALL |  | [4395-30548](#C_4395-30548) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-28301) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-28302).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-22969) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.46" (CONF:4395-2970).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30544).

Preferred document title: “Denominator for Antimicrobial Resistance Option (ARO)”.

1. SHALL contain exactly one [1..1] title (CONF:4395-22971).
2. SHALL contain exactly one [1..1] documentationOf (CONF:4395-22972).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:4395-22973).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:4395-22974).
         1. This code SHALL contain exactly one [1..1] @code="2410-9" Summary data reporting antimicrobial resistance patterns at a facility (CONF:4395-22975).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:4395-22976).
3. SHALL contain exactly one [1..1] component (CONF:4395-22977).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-22978).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-22979) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section (ARO) (V3)](#S_Summary_Data_Section_ARO_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01) (CONF:4395-22980).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30545) such that it
         1. SHALL contain exactly one [1..1] [Report No Events Section](#S_Report_No_Events_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:4395-30546).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30547) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30548).

Antimicrobial Use (AUP) Summary Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2 - US Realm

Table 7: Antimicrobial Use (AUP) Summary Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section (AUP) (V2)](#S_Summary_Data_Section_AUP_V2) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The required title for the CDA document is the “Antimicrobial Use, Pharmacy Option (AUP) Summary Report”.

NHSN reporting requires:  
• Patient presence:  
o If the reporting location is a single unit such as a ward, Number of Patient-Present Days, or  
o If the encounter location is facility-wide rather than a single unit, Number of Admissions and Number of Patient-present Days.  
• Antimicrobial usage: for each antimicrobial reported,  
o Number of Therapy Days for the antimicrobial (this is not a simple total of the stratified data; consult the NHSN protocol for the calculation)  
o Number of Therapy Days for the antimicrobial stratified by route of actual administration (four observations, one for each route)

Table 8: Antimicrobial Use (AUP) Summary Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1181-28303](#C_1181-28303) |  |
| @root | 1..1 | SHALL |  | [1181-28304](#C_1181-28304) | 2.16.840.1.113883.10.20.5.7.2 |
| templateId | 1..1 | SHALL |  | [1181-22898](#C_1181-22898) |  |
| @root | 1..1 | SHALL |  | [1181-22899](#C_1181-22899) | 2.16.840.1.113883.10.20.5.44 |
| @extension | 1..1 | SHALL |  | [1181-30543](#C_1181-30543) | 2015-04-01 |
| title | 1..1 | SHALL |  | [1181-22900](#C_1181-22900) | Antimicrobial Use, Pharmacy Option (AUP) Summary Report |
| documentationOf | 1..1 | SHALL |  | [1181-22901](#C_1181-22901) |  |
| serviceEvent | 1..1 | SHALL |  | [1181-22902](#C_1181-22902) |  |
| code | 1..1 | SHALL |  | [1181-22903](#C_1181-22903) |  |
| @code | 1..1 | SHALL |  | [1181-22904](#C_1181-22904) | 1887-9 |
| @codeSystem | 1..1 | SHALL |  | [1181-22905](#C_1181-22905) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [1181-22906](#C_1181-22906) |  |
| structuredBody | 1..1 | SHALL |  | [1181-22907](#C_1181-22907) |  |
| component | 1..1 | SHALL |  | [1181-22908](#C_1181-22908) |  |
| section | 1..1 | SHALL |  | [1181-22909](#C_1181-22909) | [Summary Data Section (AUP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01](#S_Summary_Data_Section_AUP_V2) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:1181-28303) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.2" (CONF:1181-28304).
2. SHALL contain exactly one [1..1] templateId (CONF:1181-22898) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.44" (CONF:1181-22899).
   2. SHALL contain exactly one [1..1] @extension="2015-04-01" (CONF:1181-30543).
3. SHALL contain exactly one [1..1] title="Antimicrobial Use, Pharmacy Option (AUP) Summary Report" (CONF:1181-22900).
4. SHALL contain exactly one [1..1] documentationOf (CONF:1181-22901).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:1181-22902).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:1181-22903).
         1. This code SHALL contain exactly one [1..1] @code="1887-9" Summary data reporting antimicrobial usage (CONF:1181-22904).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1181-22905).
5. SHALL contain exactly one [1..1] component (CONF:1181-22906).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:1181-22907).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:1181-22908).
         1. This component SHALL contain exactly one [1..1] [Summary Data Section (AUP) (V2)](#S_Summary_Data_Section_AUP_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01) (CONF:1181-22909).

Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 2 - US Realm

Table 9: Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section (HP-FLU)](#S_Summary_Data_Section_HPFLU) (required)  [NHSN Comment Section](#S_NHSN_Comment_Section) (optional) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Healthcare Personnel Influenza Vaccination Summary”.

The HP-FLU Summary Report further constrains the location participant to include a location code from the NHSNInfluenzaVaccinationSetting value set.

The HP-FLU Summary Report records the number of healthcare personnel (HCP) in each vaccination category for the influenza season being tracked.

Table 10: Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3311-1](#C_3311-1) |  |
| @root | 1..1 | SHALL |  | [3311-10](#C_3311-10) | 2.16.840.1.113883.10.20.5.7.3.2 |
| templateId | 1..1 | SHALL |  | [3311-8](#C_3311-8) |  |
| @root | 1..1 | SHALL |  | [3311-13](#C_3311-13) | 2.16.840.1.113883.10.20.5.50 |
| @extension | 1..1 | SHALL |  | [3311-14](#C_3311-14) | 2017-04-01 |
| title | 1..1 | SHALL |  | [3311-28468](#C_3311-28468) |  |
| participant | 1..1 | SHALL |  | [3311-28424](#C_3311-28424) |  |
| @typeCode | 1..1 | SHALL |  | [3311-28427](#C_3311-28427) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| associatedEntity | 1..1 | SHALL |  | [3311-28425](#C_3311-28425) |  |
| @classCode | 1..1 | SHALL |  | [3311-28429](#C_3311-28429) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC |
| id | 1..1 | SHALL |  | [3311-28426](#C_3311-28426) |  |
| @root | 0..1 | MAY |  | [3311-28430](#C_3311-28430) |  |
| code | 1..1 | SHALL |  | [3311-28431](#C_3311-28431) | urn:oid:2.16.840.1.113883.10.20.5.9.7 (NHSNInfluenzaVaccinationSetting) |
| @nullFlavor | 0..1 | MAY |  | [3311-28467](#C_3311-28467) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| documentationOf | 1..1 | SHALL |  | [3311-2](#C_3311-2) |  |
| serviceEvent | 1..1 | SHALL |  | [3311-3](#C_3311-3) |  |
| code | 1..1 | SHALL |  | [3311-4](#C_3311-4) |  |
| @code | 1..1 | SHALL |  | [3311-11](#C_3311-11) | 86558-4 |
| @codeSystem | 1..1 | SHALL |  | [3311-12](#C_3311-12) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| effectiveTime | 1..1 | SHALL |  | [3311-16](#C_3311-16) |  |
| low | 1..1 | SHALL |  | [3311-28416](#C_3311-28416) |  |
| @value | 1..1 | SHALL |  | [3311-28418](#C_3311-28418) |  |
| high | 1..1 | SHALL |  | [3311-28417](#C_3311-28417) |  |
| @value | 1..1 | SHALL |  | [3311-28419](#C_3311-28419) |  |
| component | 1..1 | SHALL |  | [3311-5](#C_3311-5) |  |
| structuredBody | 1..1 | SHALL |  | [3311-6](#C_3311-6) |  |
| component | 1..1 | SHALL |  | [3311-7](#C_3311-7) |  |
| section | 1..1 | SHALL |  | [3311-9](#C_3311-9) | [Summary Data Section (HP-FLU) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01](#S_Summary_Data_Section_HPFLU) |
| component | 0..1 | MAY |  | [3311-28422](#C_3311-28422) |  |
| section | 1..1 | SHALL |  | [3311-28423](#C_3311-28423) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:3311-1) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.2" (CONF:3311-10).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-8) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.50" (CONF:3311-13).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-14).

Preferred document title: “Healthcare Personnel Influenza Vaccination Summary”

1. SHALL contain exactly one [1..1] title (CONF:3311-28468).
2. SHALL contain exactly one [1..1] participant (CONF:3311-28424) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28427).
   2. SHALL contain exactly one [1..1] associatedEntity (CONF:3311-28425).
      1. This associatedEntity SHALL contain exactly one [1..1] @classCode="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28429).
      2. This associatedEntity SHALL contain exactly one [1..1] id (CONF:3311-28426).  
         Note: Facility Id
         1. This id MAY contain zero or one [0..1] @root (CONF:3311-28430).
      3. This associatedEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNInfluenzaVaccinationSetting](#NHSNInfluenzaVaccinationSetting) urn:oid:2.16.840.1.113883.10.20.5.9.7 DYNAMIC (CONF:3311-28431).  
         Note: Location
         1. This code MAY contain zero or one [0..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28467).
3. SHALL contain exactly one [1..1] documentationOf (CONF:3311-2).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:3311-3).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:3311-4).
         1. This code SHALL contain exactly one [1..1] @code="86558-4" Healthcare Personnel Influenza Vaccination Summary (CONF:3311-11).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-12).
      2. This serviceEvent SHALL contain exactly one [1..1] effectiveTime (CONF:3311-16).  
         Note: Influenza season (e.g. 2016-2017). Both effectiveTime/low/@value and effectiveTime/high/@value must contain a 4-digit year, fewer or more digits will fail Schematron validation.
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3311-28416).
            1. This low SHALL contain exactly one [1..1] @value (CONF:3311-28418).

DocumentationOf/serviceEvent/effectiveTime/low/@value SHALL contain a 4-digit year (CONF:3311-28420).

* + - 1. This effectiveTime SHALL contain exactly one [1..1] high (CONF:3311-28417).
         1. This high SHALL contain exactly one [1..1] @value (CONF:3311-28419).

DocumentationOf/serviceEvent/effectiveTime/high/@value SHALL contain a 4-digit year (CONF:3311-28421).

1. SHALL contain exactly one [1..1] component (CONF:3311-5).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3311-6).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3311-7) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section (HP-FLU)](#S_Summary_Data_Section_HPFLU) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01) (CONF:3311-9).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:3311-28422) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:3311-28423).

Table 11: NHSNInfluenzaVaccinationSetting

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNInfluenzaVaccinationSetting urn:oid:2.16.840.1.113883.10.20.5.9.7  This value set contains codes describing the location where the influenza vaccination was given.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.7/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1263-3 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Non-CMS Hospital Unit(s) |
| 1265-8 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Inpatient Psychiatric Facility Unit(s) |
| 1264-1 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Inpatient Rehabilitation Facility Unit(s) |

Hemovigilance (HV) Summary Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01 (closed)]

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Table 12: Hemovigilance (HV) Summary Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section (HV) (V2)](#S_Summary_Data_Section_HV_V2) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The required title for the CDA document is the “Hemovigilance Module - Monthly Reporting Denominator”.

The HV Summary Report records monthly summary data for a facility.

Table 13: Hemovigilance (HV) Summary Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3247-30738](#C_3247-30738) |  |
| @root | 1..1 | SHALL |  | [3247-30608](#C_3247-30608) | 2.16.840.1.113883.10.20.5.7.3.1.1 |
| templateId | 1..1 | SHALL |  | [3247-30606](#C_3247-30606) |  |
| @root | 1..1 | SHALL |  | [3247-30611](#C_3247-30611) | 2.16.840.1.113883.10.20.5.49 |
| @extension | 1..1 | SHALL |  | [3247-30612](#C_3247-30612) | 2016-08-01 |
| title | 1..1 | SHALL |  | [3247-30613](#C_3247-30613) |  |
| documentationOf | 1..1 | SHALL |  | [3247-30600](#C_3247-30600) |  |
| serviceEvent | 1..1 | SHALL |  | [3247-30739](#C_3247-30739) |  |
| code | 1..1 | SHALL |  | [3247-30740](#C_3247-30740) |  |
| @code | 1..1 | SHALL |  | [3247-30609](#C_3247-30609) | 2543-7 |
| @codeSystem | 1..1 | SHALL |  | [3247-30610](#C_3247-30610) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [3247-30741](#C_3247-30741) |  |
| structuredBody | 1..1 | SHALL |  | [3247-30604](#C_3247-30604) |  |
| component | 1..1 | SHALL |  | [3247-30605](#C_3247-30605) |  |
| section | 1..1 | SHALL |  | [3247-30607](#C_3247-30607) | [Summary Data Section (HV) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01](#S_Summary_Data_Section_HV_V2) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:3247-30738) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.1.1" (CONF:3247-30608).
2. SHALL contain exactly one [1..1] templateId (CONF:3247-30606) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.49" (CONF:3247-30611).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30612).

Preferred document title: "Hemovigilance Module - Monthly Reporting Denominator"

1. SHALL contain exactly one [1..1] title (CONF:3247-30613).
2. SHALL contain exactly one [1..1] documentationOf (CONF:3247-30600).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:3247-30739).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:3247-30740).
         1. This code SHALL contain exactly one [1..1] @code="2543-7" Hemovigilance Module - Monthly Reporting Denominator (CONF:3247-30609).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3247-30610).
3. SHALL contain exactly one [1..1] component (CONF:3247-30741).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3247-30604).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3247-30605).
         1. This component SHALL contain exactly one [1..1] [Summary Data Section (HV) (V2)](#S_Summary_Data_Section_HV_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01) (CONF:3247-30607).

Intensive Care Unit (ICU) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01 (closed)]

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Table 14: Intensive Care Unit (ICU) Summary Report (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section](#S_Summary_Data_Section) (required)  [Report No Events Section](#S_Report_No_Events_Section) (optional) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Denominator for Intensive Care Unit (ICU)/Other Locations (not NICU or SCA) Report”.

Table 15: Intensive Care Unit (ICU) Summary Report (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-28321](#C_3357-28321) |  |
| @root | 1..1 | SHALL |  | [3357-28322](#C_3357-28322) | 2.16.840.1.113883.10.20.5.7.3.3 |
| templateId | 1..1 | SHALL |  | [3357-22793](#C_3357-22793) |  |
| @root | 1..1 | SHALL |  | [3357-22794](#C_3357-22794) | 2.16.840.1.113883.10.20.5.40 |
| @extension | 1..1 | SHALL |  | [3357-30596](#C_3357-30596) | 2018-04-01 |
| title | 1..1 | SHALL |  | [3357-30866](#C_3357-30866) |  |
| documentationOf | 1..1 | SHALL |  | [3357-22800](#C_3357-22800) |  |
| serviceEvent | 1..1 | SHALL |  | [3357-22801](#C_3357-22801) |  |
| code | 1..1 | SHALL |  | [3357-22802](#C_3357-22802) |  |
| @code | 1..1 | SHALL |  | [3357-22803](#C_3357-22803) | 1879-6 |
| @codeSystem | 1..1 | SHALL |  | [3357-22804](#C_3357-22804) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [3357-22795](#C_3357-22795) |  |
| structuredBody | 1..1 | SHALL |  | [3357-22796](#C_3357-22796) |  |
| component | 1..1 | SHALL |  | [3357-22797](#C_3357-22797) |  |
| section | 1..1 | SHALL |  | [3357-22798](#C_3357-22798) | [Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47](#S_Summary_Data_Section) |
| component | 0..1 | MAY |  | [3357-30854](#C_3357-30854) |  |
| section | 1..1 | SHALL |  | [3357-30855](#C_3357-30855) | [Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01](#S_Report_No_Events_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:3357-28321) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28322).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-22793) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.40" (CONF:3357-22794).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30596).

Preferred document title: “Denominator for Intensive Care Unit (ICU)/Other Locations (not NICU or SCA) Report”.

1. SHALL contain exactly one [1..1] title (CONF:3357-30866).
2. SHALL contain exactly one [1..1] documentationOf (CONF:3357-22800).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:3357-22801).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:3357-22802).
         1. This code SHALL contain exactly one [1..1] @code="1879-6" Summary data reporting catheter and ventilator use in an ICU (CONF:3357-22803).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22804).
3. SHALL contain exactly one [1..1] component (CONF:3357-22795).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3357-22796).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3357-22797) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section](#S_Summary_Data_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47) (CONF:3357-22798).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:3357-30854) such that it
         1. SHALL contain exactly one [1..1] [Report No Events Section](#S_Report_No_Events_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30855).

Neonatal Intensive Care Unit (NICU) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01 (closed)]

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Table 16: Neonatal Intensive Care Unit (NICU) Summary Report (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section (NICU) (V2)](#S_Summary_Data_Section_NICU_V2) (required)  [Report No Events Section](#S_Report_No_Events_Section) (optional) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Denominator for Neonatal Intensive Care Unit (NICU)”.

Table 17: Neonatal Intensive Care Unit (NICU) Summary Report (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-28323](#C_3357-28323) |  |
| @root | 1..1 | SHALL |  | [3357-28324](#C_3357-28324) | 2.16.840.1.113883.10.20.5.7.3.3 |
| templateId | 1..1 | SHALL |  | [3357-22805](#C_3357-22805) |  |
| @root | 1..1 | SHALL |  | [3357-22806](#C_3357-22806) | 2.16.840.1.113883.10.20.5.41 |
| @extension | 1..1 | SHALL |  | [3357-30595](#C_3357-30595) | 2018-04-01 |
| title | 1..1 | SHALL |  | [3357-30867](#C_3357-30867) |  |
| documentationOf | 1..1 | SHALL |  | [3357-22808](#C_3357-22808) |  |
| serviceEvent | 1..1 | SHALL |  | [3357-22809](#C_3357-22809) |  |
| code | 1..1 | SHALL |  | [3357-22810](#C_3357-22810) |  |
| @code | 1..1 | SHALL |  | [3357-22811](#C_3357-22811) | 1881-2 |
| @codeSystem | 1..1 | SHALL |  | [3357-22812](#C_3357-22812) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [3357-22813](#C_3357-22813) |  |
| structuredBody | 1..1 | SHALL |  | [3357-22814](#C_3357-22814) |  |
| component | 1..1 | SHALL |  | [3357-22815](#C_3357-22815) |  |
| section | 1..1 | SHALL |  | [3357-22816](#C_3357-22816) | [Summary Data Section (NICU) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01](#S_Summary_Data_Section_NICU_V2) |
| component | 0..1 | MAY |  | [3357-30612](#C_3357-30612) |  |
| section | 1..1 | SHALL |  | [3357-30613](#C_3357-30613) | [Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01](#S_Report_No_Events_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:3357-28323) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28324).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-22805) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.41" (CONF:3357-22806).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30595).

Preferred document title: “Denominator for Neonatal Intensive Care Unit (NICU)”.

1. SHALL contain exactly one [1..1] title (CONF:3357-30867).
2. SHALL contain exactly one [1..1] documentationOf (CONF:3357-22808).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:3357-22809).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:3357-22810).
         1. This code SHALL contain exactly one [1..1] @code="1881-2" Summary data reporting catheter and ventilator use in a NICU (CONF:3357-22811).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22812).
3. SHALL contain exactly one [1..1] component (CONF:3357-22813).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3357-22814).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3357-22815) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section (NICU) (V2)](#S_Summary_Data_Section_NICU_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01) (CONF:3357-22816).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:3357-30612) such that it
         1. SHALL contain exactly one [1..1] [Report No Events Section](#S_Report_No_Events_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30613).

Outpatient Procedure Component Denominator for Same Day Outcome Measures Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01 (closed)]

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Table 18: Outpatient Procedure Component Denominator for Same Day Outcome Measures Report Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section](#S_Summary_Data_Section) (required)  [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Report No Events Section](#S_Report_No_Events_Section) (optional) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Outpatient Procedure Component Denominator for Same Day Outcome Measures”.

The OPC Summary Report uses the simple pattern for Summary Encounter. Required data elements are recorded as entries within the Summary Encounter.

Table 19: Outpatient Procedure Component Denominator for Same Day Outcome Measures Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-55](#C_4395-55) |  |
| @root | 1..1 | SHALL |  | [4395-64](#C_4395-64) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-63](#C_4395-63) |  |
| @root | 1..1 | SHALL |  | [4395-68](#C_4395-68) | 2.16.840.1.113883.10.20.5.55 |
| @extension | 1..1 | SHALL |  | [4395-69](#C_4395-69) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-67](#C_4395-67) |  |
| documentationOf | 1..1 | SHALL |  | [4395-30898](#C_4395-30898) |  |
| serviceEvent | 1..1 | SHALL |  | [4395-30899](#C_4395-30899) |  |
| code | 1..1 | SHALL |  | [4395-30900](#C_4395-30900) |  |
| @code | 1..1 | SHALL |  | [4395-30901](#C_4395-30901) | 1657-6 |
| @codeSystem | 1..1 | SHALL |  | [4395-30902](#C_4395-30902) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [4395-59](#C_4395-59) |  |
| structuredBody | 1..1 | SHALL |  | [4395-60](#C_4395-60) |  |
| component | 1..1 | SHALL |  | [4395-61](#C_4395-61) |  |
| section | 1..1 | SHALL |  | [4395-62](#C_4395-62) | [Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47](#S_Summary_Data_Section) |
| component | 0..1 | MAY |  | [4395-30936](#C_4395-30936) |  |
| section | 1..1 | SHALL |  | [4395-30937](#C_4395-30937) | [Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01](#S_Report_No_Events_Section) |
| component | 0..1 | MAY |  | [4395-30938](#C_4395-30938) |  |
| section | 1..1 | SHALL |  | [4395-30939](#C_4395-30939) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-55) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-64).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-63) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.55" (CONF:4395-68).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-69).

Preferred document title: “Outpatient Procedure Component Denominator for Same Day Outcome Measures”.

1. SHALL contain exactly one [1..1] title (CONF:4395-67).
2. SHALL contain exactly one [1..1] documentationOf (CONF:4395-30898).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:4395-30899).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:4395-30900).
         1. This code SHALL contain exactly one [1..1] @code="1657-6" Summary data reporting outpatient procedure component events at a facility (CONF:4395-30901).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:4395-30902).
3. SHALL contain exactly one [1..1] component (CONF:4395-59).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-60).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-61) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section](#S_Summary_Data_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47) (CONF:4395-62).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30936) such that it
         1. SHALL contain exactly one [1..1] [Report No Events Section](#S_Report_No_Events_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:4395-30937).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30938) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30939).

Prevention Process and Outcome Measures (POM) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.43:2018-04-01 (closed)]

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Table 20: Prevention Process and Outcome Measures (POM) Summary Report (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section (POM) (V2)](#S_Summary_Data_Section_POM_V2) (required)  [Report No Events Section](#S_Report_No_Events_Section) (optional) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Prevention Process and Outcome Measures (POM) Monthly Monitoring”.

The POM Report records summary data for a location during a specified period. It can be submitted at the facility-wide level or at the unit level.

Table 21: Prevention Process and Outcome Measures (POM) Summary Report (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.43:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-30549](#C_3357-30549) |  |
| @root | 1..1 | SHALL |  | [3357-30550](#C_3357-30550) | 2.16.840.1.113883.10.20.5.7.3.3 |
| templateId | 1..1 | SHALL |  | [3357-22886](#C_3357-22886) |  |
| @root | 1..1 | SHALL |  | [3357-22887](#C_3357-22887) | 2.16.840.1.113883.10.20.5.43 |
| @extension | 1..1 | SHALL |  | [3357-30476](#C_3357-30476) | 2018-04-01 |
| title | 1..1 | SHALL |  | [3357-30868](#C_3357-30868) |  |
| documentationOf | 1..1 | SHALL |  | [3357-22889](#C_3357-22889) |  |
| serviceEvent | 1..1 | SHALL |  | [3357-22890](#C_3357-22890) |  |
| code | 1..1 | SHALL |  | [3357-22891](#C_3357-22891) |  |
| @code | 1..1 | SHALL |  | [3357-22892](#C_3357-22892) | 1884-6 |
| @codeSystem | 1..1 | SHALL |  | [3357-22893](#C_3357-22893) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [3357-22894](#C_3357-22894) |  |
| structuredBody | 1..1 | SHALL |  | [3357-22895](#C_3357-22895) |  |
| component | 1..1 | SHALL |  | [3357-22896](#C_3357-22896) |  |
| section | 1..1 | SHALL |  | [3357-30433](#C_3357-30433) | [Summary Data Section (POM) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2014-12-01](#S_Summary_Data_Section_POM_V2) |
| component | 0..1 | MAY |  | [3357-30858](#C_3357-30858) |  |
| section | 1..1 | SHALL |  | [3357-30859](#C_3357-30859) | [Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01](#S_Report_No_Events_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:3357-30549) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-30550).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-22886) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.43" (CONF:3357-22887).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30476).

Preferred document title: “Prevention Process and Outcome Measures (POM) Monthly Monitoring”.

1. SHALL contain exactly one [1..1] title (CONF:3357-30868).
2. SHALL contain exactly one [1..1] documentationOf (CONF:3357-22889).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:3357-22890).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:3357-22891).
         1. This code SHALL contain exactly one [1..1] @code="1884-6" Summary data reporting Active Surveillance Testing (CONF:3357-22892).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22893).
3. SHALL contain exactly one [1..1] component (CONF:3357-22894).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3357-22895).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3357-22896) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section (POM) (V2)](#S_Summary_Data_Section_POM_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2014-12-01) (CONF:3357-30433).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:3357-30858) such that it
         1. SHALL contain exactly one [1..1] [Report No Events Section](#S_Report_No_Events_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30859).

Specialty Care Area (SCA) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01 (closed)]

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Table 22: Specialty Care Area (SCA) Summary Report (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section](#S_Summary_Data_Section) (required)  [Report No Events Section](#S_Report_No_Events_Section) (optional) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Denominator for Specialty Care Area (SCA)”.

This summary report uses the basic pattern for Summary Encounter and Summary Data Observation. Consult the NHSN protocol for which data to report.

Table 23: Specialty Care Area (SCA) Summary Report (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-28327](#C_3357-28327) |  |
| @root | 1..1 | SHALL |  | [3357-28328](#C_3357-28328) | 2.16.840.1.113883.10.20.5.7.3.3 |
| templateId | 1..1 | SHALL |  | [3357-22843](#C_3357-22843) |  |
| @root | 1..1 | SHALL |  | [3357-22844](#C_3357-22844) | 2.16.840.1.113883.10.20.5.42 |
| @extension | 1..1 | SHALL |  | [3357-30594](#C_3357-30594) | 2018-04-01 |
| title | 1..1 | SHALL |  | [3357-30869](#C_3357-30869) |  |
| documentationOf | 1..1 | SHALL |  | [3357-22846](#C_3357-22846) |  |
| serviceEvent | 1..1 | SHALL |  | [3357-22847](#C_3357-22847) |  |
| code | 1..1 | SHALL |  | [3357-22848](#C_3357-22848) |  |
| @code | 1..1 | SHALL |  | [3357-22849](#C_3357-22849) | 1880-4 |
| @codeSystem | 1..1 | SHALL |  | [3357-22850](#C_3357-22850) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [3357-22851](#C_3357-22851) |  |
| structuredBody | 1..1 | SHALL |  | [3357-22852](#C_3357-22852) |  |
| component | 1..1 | SHALL |  | [3357-22853](#C_3357-22853) |  |
| section | 1..1 | SHALL |  | [3357-22854](#C_3357-22854) | [Summary Data Section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47](#S_Summary_Data_Section) |
| component | 0..1 | MAY |  | [3357-30856](#C_3357-30856) |  |
| section | 1..1 | SHALL |  | [3357-30857](#C_3357-30857) | [Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01](#S_Report_No_Events_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:3357-28327) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28328).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-22843) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.42" (CONF:3357-22844).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30594).

Preferred document title: “Denominator for Specialty Care Area (SCA)”.

1. SHALL contain exactly one [1..1] title (CONF:3357-30869).
2. SHALL contain exactly one [1..1] documentationOf (CONF:3357-22846).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:3357-22847).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:3357-22848).
         1. This code SHALL contain exactly one [1..1] @code="1880-4" Summary data reporting catheter and ventilator use in a SCA (CONF:3357-22849).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22850).
3. SHALL contain exactly one [1..1] component (CONF:3357-22851).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3357-22852).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3357-22853) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section](#S_Summary_Data_Section) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47) (CONF:3357-22854).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:3357-30856) such that it
         1. SHALL contain exactly one [1..1] [Report No Events Section](#S_Report_No_Events_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30857).

Vascular Access Type Report (VAT) Summary Report (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01 (closed)]

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Table 24: Vascular Access Type Report (VAT) Summary Report (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Summary Data Section (VAT)](#S_Summary_Data_Section_VAT) (required)  [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Report No Events Section](#S_Report_No_Events_Section) (optional) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Preferred document title: “Maintenance Hemodialysis Patients Stratified by Vascular Access Type Report”.

Table 25: Vascular Access Type Report (VAT) Summary Report (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-28329](#C_3357-28329) |  |
| @root | 1..1 | SHALL |  | [3357-28330](#C_3357-28330) | 2.16.840.1.113883.10.20.5.7.3.3 |
| templateId | 1..1 | SHALL |  | [3357-22921](#C_3357-22921) |  |
| @root | 1..1 | SHALL |  | [3357-22922](#C_3357-22922) | 2.16.840.1.113883.10.20.5.45 |
| @extension | 1..1 | SHALL |  | [3357-30860](#C_3357-30860) | 2018-04-01 |
| title | 1..1 | SHALL |  | [3357-30870](#C_3357-30870) |  |
| documentationOf | 1..1 | SHALL |  | [3357-22924](#C_3357-22924) |  |
| serviceEvent | 1..1 | SHALL |  | [3357-22925](#C_3357-22925) |  |
| code | 1..1 | SHALL |  | [3357-22926](#C_3357-22926) |  |
| @code | 1..1 | SHALL |  | [3357-22927](#C_3357-22927) | 2316-8 |
| @codeSystem | 1..1 | SHALL |  | [3357-22928](#C_3357-22928) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| component | 1..1 | SHALL |  | [3357-22929](#C_3357-22929) |  |
| structuredBody | 1..1 | SHALL |  | [3357-22930](#C_3357-22930) |  |
| component | 1..1 | SHALL |  | [3357-22931](#C_3357-22931) |  |
| section | 1..1 | SHALL |  | [3357-22932](#C_3357-22932) | [Summary Data Section (VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.50](#S_Summary_Data_Section_VAT) |
| component | 0..1 | MAY |  | [3357-30861](#C_3357-30861) |  |
| section | 1..1 | SHALL |  | [3357-30862](#C_3357-30862) | [Report No Events Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01](#S_Report_No_Events_Section) |
| component | 0..1 | MAY |  | [3357-30911](#C_3357-30911) |  |
| section | 1..1 | SHALL |  | [3357-30912](#C_3357-30912) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.28).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:3357-28329) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28330).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-22921) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.45" (CONF:3357-22922).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30860).

Preferred document title: “Maintenance Hemodialysis Patients Stratified by Vascular Access Type Report”.

1. SHALL contain exactly one [1..1] title (CONF:3357-30870).
2. SHALL contain exactly one [1..1] documentationOf (CONF:3357-22924).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:3357-22925).
      1. This serviceEvent SHALL contain exactly one [1..1] code (CONF:3357-22926).
         1. This code SHALL contain exactly one [1..1] @code="2316-8" Summary dialysis data reporting vascular access types in maintenance (chronic) hemodialysis patients (CONF:3357-22927).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-22928).
3. SHALL contain exactly one [1..1] component (CONF:3357-22929).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:3357-22930).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:3357-22931) such that it
         1. SHALL contain exactly one [1..1] [Summary Data Section (VAT)](#S_Summary_Data_Section_VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.50) (CONF:3357-22932).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:3357-30861) such that it
         1. SHALL contain exactly one [1..1] [Report No Events Section](#S_Report_No_Events_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) (CONF:3357-30862).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:3357-30911) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:3357-30912).

HAI Single-Person Report Generic Constraints

[ClinicalDocument: identifier urn:oid:2.16.840.1.113883.10.20.5.4.27 (open)]

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This template records the constraints for HAI single-person reports. It is used by all numerator reports covered by this guide. It is also used by the Procedure Denominator Report.

A single-person report must conform to the Healthcare Associated Infection Report template. In addition, key data about the patient are recorded in the recordTarget element.  
• A patient identifier representing the facility-assigned patient ID is required. Other identifiers for the person can also be present, such as a United States Social Security Number (id/@root = 2.16.840.1.113883.4.1), a Medicare beneficiary identifier (id/@root = 2.16.840.1.113883.4.338), or secondary patient IDs (id/@root = the appropriate facility OID for patient IDs). If there isn't an available "other" identifier, then there should not be an id present for that type of identifier.  
• The patient name is optional; consult the NHSN reporting protocol and requirements.  
• Patient gender and birthdate are required.  
The report-specific requirements specify the encounter data to record for each single-person report type. These data always include an identifier for the reporting facility, and usually include the encounter type (inpatient or outpatient), the admission date or encounter date, and the facility unit identifier and type.

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

Table 26: HAI Single-Person Report Generic Constraints Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22415](#C_86-22415) |  |
| @root | 1..1 | SHALL |  | [86-22416](#C_86-22416) | 2.16.840.1.113883.10.20.5.4.27 |
| recordTarget | 1..1 | SHALL |  | [86-22417](#C_86-22417) |  |
| patientRole | 1..1 | SHALL |  | [86-22418](#C_86-22418) |  |
| id | 1..\* | SHALL |  | [86-22419](#C_86-22419) |  |
| @root | 1..1 | SHALL |  | [86-22420](#C_86-22420) |  |
| @extension | 1..1 | SHALL |  | [86-22421](#C_86-22421) |  |
| patient | 1..1 | SHALL |  | [86-22422](#C_86-22422) |  |
| name | 0..1 | MAY |  | [86-22423](#C_86-22423) |  |
| administrativeGenderCode | 1..1 | SHALL |  | [86-22424](#C_86-22424) |  |
| @code | 1..1 | SHALL |  | [86-22425](#C_86-22425) | urn:oid:2.16.840.1.113883.1.11.1 (Administrative Gender (HL7 V3)) |
| birthTime | 1..1 | SHALL |  | [86-22426](#C_86-22426) |  |
| @value | 1..1 | SHALL |  | [86-22427](#C_86-22427) |  |
| raceCode | 0..1 | MAY |  | [86-22428](#C_86-22428) | urn:oid:2.16.840.1.113883.3.2074.1.1.3 (Race Category Excluding Nulls) |
| ethnicGroupCode | 0..1 | MAY |  | [86-22429](#C_86-22429) | urn:oid:2.16.840.1.114222.4.11.837 (Ethnicity) |

1. Conforms to [Healthcare Associated Infection Report](#D_Healthcare_Associated_Infection_Repor) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.25).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22415) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.4.27" (CONF:86-22416).
3. SHALL contain exactly one [1..1] recordTarget (CONF:86-22417).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:86-22418).
      1. This patientRole SHALL contain at least one [1..\*] id (CONF:86-22419).  
         Note: A patient identifier representing the facility-assigned patient ID is required. Other identifiers for the person can also be present, such as a United States Social Security Number (id/@root = 2.16.840.1.113883.4.1), a Medicare beneficiary identifier (id/@root = 2.16.840.1.113883.4.338), or secondary patient IDs (id/@root = the appropriate facility OID for patient IDs). If there isn't an available "other" identifier, then there should not be an id present for that type of identifier.
         1. Such ids SHALL contain exactly one [1..1] @root (CONF:86-22420).
         2. Such ids SHALL contain exactly one [1..1] @extension (CONF:86-22421).
      2. This patientRole SHALL contain exactly one [1..1] patient (CONF:86-22422).

In the name element, the sub-elements should be in the following order: family, given, and optionally a second given representing the middle name(s). A name element is not allowed to contain mixed content.

* + - 1. This patient MAY contain zero or one [0..1] name (CONF:86-22423).
      2. This patient SHALL contain exactly one [1..1] administrativeGenderCode (CONF:86-22424).
         1. This administrativeGenderCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [Administrative Gender (HL7 V3)](#Administrative_Gender_HL7_V3) urn:oid:2.16.840.1.113883.1.11.1 DYNAMIC (CONF:86-22425).
      3. This patient SHALL contain exactly one [1..1] birthTime (CONF:86-22426).
         1. This birthTime SHALL contain exactly one [1..1] @value (CONF:86-22427).
      4. This patient MAY contain zero or one [0..1] raceCode, which SHALL be selected from ValueSet [Race Category Excluding Nulls](#Race_Category_Excluding_Nulls) urn:oid:2.16.840.1.113883.3.2074.1.1.3 DYNAMIC (CONF:86-22428).
      5. This patient MAY contain zero or one [0..1] ethnicGroupCode (ValueSet: [Ethnicity](#Ethnicity) urn:oid:2.16.840.1.114222.4.11.837 DYNAMIC) (CONF:86-22429).

1. The ClinicalDocument/author MAY be software or MAY be a person in the role of infection control professional (ICP) (CONF:86-22430).

Table 27: Administrative Gender (HL7 V3)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Administrative Gender (HL7 V3) urn:oid:2.16.840.1.113883.1.11.1  (Clinical Focus: The gender of a person used for adminstrative purposes (as opposed to clinical gender)),(Data Element Scope: ),(Inclusion Criteria: All codes in the Hl7 V3 AdministrativeGender code system),(Exclusion Criteria: )  This value set was imported on 9/29/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| F | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Female |
| M | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Male |
| UN | Administrative Gender | urn:oid:2.16.840.1.113883.5.1 | Undifferentiated |

Table 28: Race Category Excluding Nulls

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Race Category Excluding Nulls urn:oid:2.16.840.1.113883.3.2074.1.1.3  (Clinical Focus: The top-level "Race" concepts as defined by US Office of Management and Budget (OMB), excluding "Other race". All "Race" concepts in the Race and Ethnicity - CDC code system roll-up to one of these codes.),(Data Element Scope: Demographic categorization of a person's race (can be multiple).),(Inclusion Criteria: Direct children of the "1000-9 Race" concept in the Race and Ethnicity Code system.),(Exclusion Criteria: Specifically exclude "2131-1 Other Race" and any descendant of the concepts defined in the inclusion criteria.)  This value set was imported on 6/18/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1002-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | American Indian or Alaska Native |
| 2028-9 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Asian |
| 2054-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Black or African American |
| 2076-8 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Native Hawaiian or Other Pacific Islander |
| 2106-3 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | White |

Table 29: Ethnicity

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Ethnicity urn:oid:2.16.840.1.114222.4.11.837  (Clinical Focus: ),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2135-2 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Hispanic or Latino |
| 2186-5 | Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 | Not Hispanic or Latino |

Outpatient Procedure Component Denominator for Procedure Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.56:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 30: Outpatient Procedure Component Denominator for Procedure Report Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Procedure Details Section in an OPC Denominator for Procedure](#S_Procedure_Details_Section_in_an_OPC_D) (required)  [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records an outpatient procedure performed.

Preferred document title: “Outpatient Procedure Component Denominator for Procedure Report”.

Key encounter data:

* The facility id is required. Unit identifier and unit type are not reported.

Other dates and locations:

* The date of the procedure is recorded as effectiveTime in the Procedure Details in an OPC Denominator for Procedure.

Other notes: The procedure id is recorded in the id of the Procedure Details in an OPC Denominator for Procedure template. NHSN uses this to establish a link between OPC Procedure for Denominator and OPC SSI Reports.

Table 31: Outpatient Procedure Component Denominator for Procedure Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.56:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30619](#C_4395-30619) |  |
| @root | 1..1 | SHALL |  | [4395-30632](#C_4395-30632) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-30631](#C_4395-30631) |  |
| @root | 1..1 | SHALL |  | [4395-30638](#C_4395-30638) | 2.16.840.1.113883.10.20.5.56 |
| @extension | 1..1 | SHALL |  | [4395-30641](#C_4395-30641) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-30713](#C_4395-30713) |  |
| componentOf | 1..1 | SHALL |  | [4395-30620](#C_4395-30620) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4395-30621](#C_4395-30621) |  |
| code | 1..1 | SHALL |  | [4395-30633](#C_4395-30633) |  |
| @code | 1..1 | SHALL |  | [4395-30642](#C_4395-30642) | AMB |
| @codeSystem | 1..1 | SHALL |  | [4395-30643](#C_4395-30643) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| effectiveTime | 1..1 | SHALL |  | [4395-30639](#C_4395-30639) |  |
| low | 1..1 | SHALL |  | [4395-30640](#C_4395-30640) |  |
| @value | 1..1 | SHALL |  | [4395-30644](#C_4395-30644) |  |
| location | 1..1 | SHALL |  | [4395-30622](#C_4395-30622) |  |
| healthCareFacility | 1..1 | SHALL |  | [4395-30623](#C_4395-30623) |  |
| id | 1..1 | SHALL |  | [4395-30624](#C_4395-30624) |  |
| @root | 1..1 | SHALL |  | [4395-30634](#C_4395-30634) |  |
| @extension | 0..1 | MAY |  | [4395-30635](#C_4395-30635) |  |
| code | 0..1 | MAY |  | [4395-30636](#C_4395-30636) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [4395-30625](#C_4395-30625) |  |
| structuredBody | 1..1 | SHALL |  | [4395-30626](#C_4395-30626) |  |
| component | 1..1 | SHALL |  | [4395-30627](#C_4395-30627) |  |
| section | 1..1 | SHALL |  | [4395-30628](#C_4395-30628) | [Procedure Details Section in an OPC Denominator for Procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01](#S_Procedure_Details_Section_in_an_OPC_D) |
| component | 1..1 | SHALL |  | [4395-30629](#C_4395-30629) |  |
| section | 1..1 | SHALL |  | [4395-30630](#C_4395-30630) | [Infection Risk Factors Section in an OPC Denominator for Procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01](#S_Infection_Risk_Factors_Section_in_an_) |
| component | 0..1 | MAY |  | [4395-30665](#C_4395-30665) |  |
| section | 1..1 | SHALL |  | [4395-30666](#C_4395-30666) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-30619) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-30632).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30631) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.56" (CONF:4395-30638).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30641).
3. SHALL contain exactly one [1..1] title (CONF:4395-30713).  
   Note: Preferred document title: “Outpatient Procedure Component Denominator for Procedure”.
4. SHALL contain exactly one [1..1] componentOf (CONF:4395-30620).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4395-30621).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code (CONF:4395-30633).
         1. This code SHALL contain exactly one [1..1] @code="AMB" Outpatient (CONF:4395-30642).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30643).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30639).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30640).
            1. This low SHALL contain exactly one [1..1] @value (CONF:4395-30644).  
               Note: Admission Date
      3. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4395-30622).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4395-30623).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4395-30624).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4395-30634).

The value of @extension, if supplied, must be a value registered with NHSN.

This id MAY contain zero or one [0..1] @extension (CONF:4395-30635).

* + - * 1. This healthCareFacility MAY contain zero or one [0..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:4395-30636).

1. SHALL contain exactly one [1..1] component (CONF:4395-30625).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-30626).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-30627) such that it
         1. SHALL contain exactly one [1..1] [Procedure Details Section in an OPC Denominator for Procedure](#S_Procedure_Details_Section_in_an_OPC_D) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01) (CONF:4395-30628).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-30629) such that it
         1. SHALL contain exactly one [1..1] [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01) (CONF:4395-30630).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30665) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30666).

Table 32: NHSNHealthcareServiceLocationCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNHealthcareServiceLocationCode urn:oid:2.16.840.1.113883.13.19  (Clinical Focus: NHSN surveillance reporting: A classification of patient care locations within healthcare facilities for public health surveillance purposes.),(Data Element Scope: Code identifying the type of service location in a health care facility.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.19/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1005-8 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Cardiac Catheterization Room/Suite |
| 1007-4 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Endoscopy Suite |
| 1008-2 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Radiology |
| 1009-0 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Pulmonary Function Testing |
| 1010-8 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | General Laboratory |
| 1011-6 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Clinical Chemistry Laboratory |
| 1012-4 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Hematology Laboratory |
| 1013-2 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Histology-Surgical Pathology Laboratory |
| 1014-0 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Microbiology Laboratory |
| 1015-7 | HSLOC | urn:oid:2.16.840.1.113883.6.259 | Serology Laboratory |
| ... | | | |

HAI AUR Antimicrobial Resistance Option (ARO) Report (V5)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.31:2020-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, Normative 1 - US Realm

Table 33: HAI AUR Antimicrobial Resistance Option (ARO) Report (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Findings Section in an ARO Report (V4)](#S_Findings_Section_in_an_ARO_Report_V4) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records the antimicrobial susceptibility testing results for one pathogen isolate from an individual inpatient subject. Each report records a single organism.

Preferred document title: “Antimicrobial Resistance Option (ARO) Report”

Key encounter data:  
• The encounter type (inpatient or outpatient) is required.  
• An admission date is required.  
• The facility identifier is required. Unit identifier and unit type are not recorded in the header.

Other dates and locations:  
• Date of specimen collection is recorded in the effectiveTime element of the Specimen Collection Procedure (V2) template.

Table 34: HAI AUR Antimicrobial Resistance Option (ARO) Report (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.31:2020-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4459-30540](#C_4459-30540) |  |
| @root | 1..1 | SHALL |  | [4459-30541](#C_4459-30541) | 2.16.840.1.113883.10.20.5.7.3 |
| templateId | 1..1 | SHALL |  | [4459-21951](#C_4459-21951) |  |
| @root | 1..1 | SHALL |  | [4459-21952](#C_4459-21952) | 2.16.840.1.113883.10.20.5.31 |
| @extension | 1..1 | SHALL |  | [4459-30542](#C_4459-30542) | 2020-04-01 |
| title | 1..1 | SHALL |  | [4459-30794](#C_4459-30794) |  |
| componentOf | 1..1 | SHALL |  | [4459-21139](#C_4459-21139) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4459-21140](#C_4459-21140) |  |
| code | 1..1 | SHALL |  | [4459-21141](#C_4459-21141) | urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode) |
| effectiveTime | 1..1 | SHALL |  | [4459-21143](#C_4459-21143) |  |
| low | 1..1 | SHALL |  | [4459-21144](#C_4459-21144) |  |
| @value | 1..1 | SHALL |  | [4459-21145](#C_4459-21145) |  |
| location | 1..1 | SHALL |  | [4459-21146](#C_4459-21146) |  |
| healthCareFacility | 1..1 | SHALL |  | [4459-21147](#C_4459-21147) |  |
| id | 1..1 | SHALL |  | [4459-21148](#C_4459-21148) |  |
| @root | 1..1 | SHALL |  | [4459-21149](#C_4459-21149) |  |
| component | 1..1 | SHALL |  | [4459-21150](#C_4459-21150) |  |
| structuredBody | 1..1 | SHALL |  | [4459-21151](#C_4459-21151) |  |
| component | 1..1 | SHALL |  | [4459-21152](#C_4459-21152) |  |
| section | 1..1 | SHALL |  | [4459-21153](#C_4459-21153) | [Findings Section in an ARO Report (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2020-04-01](#S_Findings_Section_in_an_ARO_Report_V4) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4459-30540) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3" (CONF:4459-30541).
2. SHALL contain exactly one [1..1] templateId (CONF:4459-21951) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.31" (CONF:4459-21952).
   2. SHALL contain exactly one [1..1] @extension="2020-04-01" (CONF:4459-30542).

Preferred document title: “Antimicrobial Resistance Option (ARO) Report”

1. SHALL contain exactly one [1..1] title (CONF:4459-30794).
2. SHALL contain exactly one [1..1] componentOf (CONF:4459-21139).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4459-21140).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNEncounterTypeCode](#NHSNEncounterTypeCode) urn:oid:2.16.840.1.113883.13.1 DYNAMIC (CONF:4459-21141).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4459-21143).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4459-21144).
            1. This low SHALL contain exactly one [1..1] @value (CONF:4459-21145).  
               Note: Admission Date
         2. The value of the admission date SHALL NOT be earlier than January 1, 1986; SHALL NOT be earlier than the date of birth; and SHALL NOT be later than the event date (CONF:4459-23358).
      3. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4459-21146).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4459-21147).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4459-21148).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4459-21149).

1. SHALL contain exactly one [1..1] component (CONF:4459-21150).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4459-21151).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4459-21152) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an ARO Report (V4)](#S_Findings_Section_in_an_ARO_Report_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2020-04-01) (CONF:4459-21153).

Table 35: NHSNEncounterTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNEncounterTypeCode urn:oid:2.16.840.1.113883.13.1  (Clinical Focus: ),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| AMB | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | ambulatory |
| IMP | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | inpatient encounter |

HAI Bloodstream Infection Report (BSI) (V4)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.32:2021-01-01 (closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4, STU 1 - US Realm

Table 36: HAI Bloodstream Infection Report (BSI) (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Infection Details Section in a BSI Report](#S_Infection_Details_Section_in_a_BSI_Re) (required)  [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (required)  [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required)  [COVID-19 Section (V2)](#S_COVID19_Section_V2) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records a bloodstream infection event.

Preferred document title: “Bloodstream Infection Report (BSI)”.

Key encounter data:

• A value for admission date is required.  
• A value for discharge date may be recorded.  
• The facility id, unit identifier, and unit type are required.

Other dates and locations:

• The date of the infection event is recorded as effectiveTime in the Infection-Type Observation.

Table 37: HAI Bloodstream Infection Report (BSI) (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.32:2021-01-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4475-28307](#C_4475-28307) |  |
| @root | 1..1 | SHALL |  | [4475-28308](#C_4475-28308) | 2.16.840.1.113883.10.20.5.7.4.1 |
| templateId | 1..1 | SHALL |  | [4475-22460](#C_4475-22460) |  |
| @root | 1..1 | SHALL |  | [4475-22461](#C_4475-22461) | 2.16.840.1.113883.10.20.5.32 |
| @extension | 1..1 | SHALL |  | [4475-28432](#C_4475-28432) | 2021-01-01 |
| title | 1..1 | SHALL |  | [4475-30865](#C_4475-30865) |  |
| componentOf | 1..1 | SHALL |  | [4475-22462](#C_4475-22462) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4475-22463](#C_4475-22463) |  |
| effectiveTime | 1..1 | SHALL |  | [4475-22464](#C_4475-22464) |  |
| low | 1..1 | SHALL |  | [4475-22465](#C_4475-22465) |  |
| @value | 1..1 | SHALL |  | [4475-22466](#C_4475-22466) |  |
| high | 0..1 | MAY |  | [4475-22467](#C_4475-22467) |  |
| @value | 1..1 | SHALL |  | [4475-22468](#C_4475-22468) |  |
| location | 1..1 | SHALL |  | [4475-22469](#C_4475-22469) |  |
| healthCareFacility | 1..1 | SHALL |  | [4475-22470](#C_4475-22470) |  |
| id | 1..1 | SHALL |  | [4475-22471](#C_4475-22471) |  |
| @root | 1..1 | SHALL |  | [4475-22472](#C_4475-22472) |  |
| @extension | 1..1 | SHALL |  | [4475-22473](#C_4475-22473) |  |
| code | 1..1 | SHALL |  | [4475-22474](#C_4475-22474) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [4475-22476](#C_4475-22476) |  |
| structuredBody | 1..1 | SHALL |  | [4475-22477](#C_4475-22477) |  |
| component | 1..1 | SHALL |  | [4475-22478](#C_4475-22478) |  |
| section | 1..1 | SHALL |  | [4475-22479](#C_4475-22479) | [Infection Risk Factors Section in a BSI Report (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01](#S_Infection_Risk_Factors_Sect_BSI_V3) |
| component | 1..1 | SHALL |  | [4475-30866](#C_4475-30866) |  |
| section | 1..1 | SHALL |  | [4475-30867](#C_4475-30867) | [COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01](#S_COVID19_Section_V2) |
| component | 1..1 | SHALL |  | [4475-22480](#C_4475-22480) |  |
| section | 1..1 | SHALL |  | [4475-22481](#C_4475-22481) | [Infection Details Section in a BSI Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.38](#S_Infection_Details_Section_in_a_BSI_Re) |
| component | 1..1 | SHALL |  | [4475-22482](#C_4475-22482) |  |
| section | 1..1 | SHALL |  | [4475-22483](#C_4475-22483) | [Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45](#S_Findings_Section_in_an_InfectionType_) |
| component | 0..1 | MAY |  | [4475-28411](#C_4475-28411) |  |
| section | 1..1 | SHALL |  | [4475-28412](#C_4475-28412) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4475-28307) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-28308).
2. SHALL contain exactly one [1..1] templateId (CONF:4475-22460) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.32" (CONF:4475-22461).
   2. SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-28432).

Preferred document title: “Bloodstream Infection Report (BSI)”.

1. SHALL contain exactly one [1..1] title (CONF:4475-30865).
2. SHALL contain exactly one [1..1] componentOf (CONF:4475-22462).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4475-22463).
      1. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4475-22464).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4475-22465).
            1. This low SHALL contain exactly one [1..1] @value (CONF:4475-22466).  
               Note: Admission Date
         2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4475-22467).
            1. The high, if present, SHALL contain exactly one [1..1] @value (CONF:4475-22468).  
               Note: Discharge Date
         3. The value of the admission date SHALL NOT be earlier than January 1, 1986; SHALL NOT be earlier than the date of birth; and SHALL NOT be later than the event date (CONF:4475-23359).
      2. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4475-22469).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4475-22470).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4475-22471).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4475-22472).

The value of @extension must be a value registered with NHSN.

This id SHALL contain exactly one [1..1] @extension (CONF:4475-22473).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:4475-22474).

1. SHALL contain exactly one [1..1] component (CONF:4475-22476).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4475-22477).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22478) such that it
         1. SHALL contain exactly one [1..1] [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01) (CONF:4475-22479).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30866) such that it
         1. SHALL contain exactly one [1..1] [COVID-19 Section (V2)](#S_COVID19_Section_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) (CONF:4475-30867).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22480) such that it
         1. SHALL contain exactly one [1..1] [Infection Details Section in a BSI Report](#S_Infection_Details_Section_in_a_BSI_Re) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.38) (CONF:4475-22481).
      4. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22482) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:4475-22483).
      5. This structuredBody MAY contain zero or one [0..1] component (CONF:4475-28411) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4475-28412).

HAI Central-Line Insertion Practice Numerator Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.36:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 38: HAI Central-Line Insertion Practice Numerator Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Procedure Details Section in a CLIP Report](#S_Procedure_Details_Section_in_a_CLIP_R) (required)  [Infection Risk Factors Section in a CLIP Report (V2)](#S_Infection_Risk_Factors_Section_in_a_C) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records whether the steps in a central-line insertion practice protocol were followed in the required order.

Preferred document title: “Central-Line Insertion Practices (CLIP) Report”

Key encounter data:

• Admission date is recorded as nullFlavor NI (no information).

• Facility id, unit identifier, and unit type are required.

Other dates and locations: None

Table 39: HAI Central-Line Insertion Practice Numerator Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.36:2014-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1129-30543](#C_1129-30543) |  |
| @root | 1..1 | SHALL |  | [1129-30544](#C_1129-30544) | 2.16.840.1.113883.10.20.5.7.2.2.1 |
| templateId | 1..1 | SHALL |  | [1129-22553](#C_1129-22553) |  |
| @root | 1..1 | SHALL |  | [1129-22554](#C_1129-22554) | 2.16.840.1.113883.10.20.5.36 |
| @extension | 1..1 | SHALL |  | [1129-30284](#C_1129-30284) | 2014-12-01 |
| title | 1..1 | SHALL |  | [1129-30609](#C_1129-30609) |  |
| componentOf | 1..1 | SHALL |  | [1129-22555](#C_1129-22555) |  |
| encompassingEncounter | 1..1 | SHALL |  | [1129-22556](#C_1129-22556) |  |
| effectiveTime | 1..1 | SHALL |  | [1129-22557](#C_1129-22557) |  |
| low | 1..1 | SHALL |  | [1129-22558](#C_1129-22558) |  |
| @nullFlavor | 1..1 | SHALL | CS | [1129-22559](#C_1129-22559) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI |
| location | 1..1 | SHALL |  | [1129-22560](#C_1129-22560) |  |
| healthCareFacility | 1..1 | SHALL |  | [1129-22561](#C_1129-22561) |  |
| id | 1..1 | SHALL |  | [1129-22562](#C_1129-22562) |  |
| @root | 1..1 | SHALL |  | [1129-22563](#C_1129-22563) |  |
| @extension | 1..1 | SHALL |  | [1129-22564](#C_1129-22564) |  |
| code | 1..1 | SHALL |  | [1129-22565](#C_1129-22565) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [1129-22567](#C_1129-22567) |  |
| structuredBody | 1..1 | SHALL |  | [1129-22568](#C_1129-22568) |  |
| component | 1..1 | SHALL |  | [1129-22569](#C_1129-22569) |  |
| section | 1..1 | SHALL |  | [1129-30424](#C_1129-30424) | [Infection Risk Factors Section in a CLIP Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01](#S_Infection_Risk_Factors_Section_in_a_C) |
| component | 1..1 | SHALL |  | [1129-22571](#C_1129-22571) |  |
| section | 1..1 | SHALL |  | [1129-22572](#C_1129-22572) | [Procedure Details Section in a CLIP Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.42](#S_Procedure_Details_Section_in_a_CLIP_R) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:1129-30543) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.2.2.1" (CONF:1129-30544).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-22553) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.36" (CONF:1129-22554).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30284).

Preferred document title: “Central-Line Insertion Practices (CLIP) Report”

1. SHALL contain exactly one [1..1] title (CONF:1129-30609).
2. SHALL contain exactly one [1..1] componentOf (CONF:1129-22555).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:1129-22556).
      1. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:1129-22557).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1129-22558).
            1. This low SHALL contain exactly one [1..1] @nullFlavor="NI" No information (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008 STATIC) (CONF:1129-22559).
      2. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:1129-22560).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:1129-22561).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:1129-22562).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:1129-22563).

The value of @extension must be a value registered with NHSN.

This id SHALL contain exactly one [1..1] @extension (CONF:1129-22564).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:1129-22565).

1. SHALL contain exactly one [1..1] component (CONF:1129-22567).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:1129-22568).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:1129-22569) such that it
         1. SHALL contain exactly one [1..1] [Infection Risk Factors Section in a CLIP Report (V2)](#S_Infection_Risk_Factors_Section_in_a_C) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01) (CONF:1129-30424).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:1129-22571) such that it
         1. SHALL contain exactly one [1..1] [Procedure Details Section in a CLIP Report](#S_Procedure_Details_Section_in_a_CLIP_R) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.42) (CONF:1129-22572).

HAI Evidence of Infection (Dialysis) Report (V6)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.37:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 40: HAI Evidence of Infection (Dialysis) Report (V6) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (optional)  [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)](#S_Risk_Factors_Section_in_an_Evidence_V2) (required)  [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

The report records evidence of infection in a chronic hemodialysis patient.

Preferred document title: “Evidence of Infection, Dialysis Report (EOID)”

Key encounter data:

• Encounter type is recorded as outpatient (AMB).

• Admission date is recorded as nullFlavor NA (not applicable).

• Facility id, unit identifier, and unit type are required.

Other dates and locations: None

Table 41: HAI Evidence of Infection (Dialysis) Report (V6) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.37:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30674](#C_4395-30674) |  |
| @root | 1..1 | SHALL |  | [4395-30675](#C_4395-30675) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-22573](#C_4395-22573) |  |
| @root | 1..1 | SHALL |  | [4395-30254](#C_4395-30254) | 2.16.840.1.113883.10.20.5.37 |
| @extension | 1..1 | SHALL |  | [4395-30285](#C_4395-30285) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-30983](#C_4395-30983) |  |
| componentOf | 1..1 | SHALL |  | [4395-22575](#C_4395-22575) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4395-22576](#C_4395-22576) |  |
| code | 1..1 | SHALL |  | [4395-22577](#C_4395-22577) |  |
| @code | 1..1 | SHALL |  | [4395-22578](#C_4395-22578) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = AMB |
| effectiveTime | 1..1 | SHALL |  | [4395-22579](#C_4395-22579) |  |
| low | 1..1 | SHALL |  | [4395-22580](#C_4395-22580) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-22581](#C_4395-22581) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| location | 1..1 | SHALL |  | [4395-22582](#C_4395-22582) |  |
| healthCareFacility | 1..1 | SHALL |  | [4395-22583](#C_4395-22583) |  |
| id | 1..1 | SHALL |  | [4395-22584](#C_4395-22584) |  |
| @root | 1..1 | SHALL |  | [4395-22585](#C_4395-22585) |  |
| @extension | 1..1 | SHALL |  | [4395-22586](#C_4395-22586) |  |
| code | 1..1 | SHALL |  | [4395-22587](#C_4395-22587) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [4395-22589](#C_4395-22589) |  |
| structuredBody | 1..1 | SHALL |  | [4395-22590](#C_4395-22590) |  |
| component | 1..1 | SHALL |  | [4395-22591](#C_4395-22591) |  |
| section | 1..1 | SHALL |  | [4395-22592](#C_4395-22592) | [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2015-10-01](#S_Risk_Factors_Section_in_an_Evidence_V2) |
| component | 1..1 | SHALL |  | [4395-22593](#C_4395-22593) |  |
| section | 1..1 | SHALL |  | [4395-30253](#C_4395-30253) | [Details Section in an Evidence of Infection (Dialysis) Report (V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01](#S_Details_Section_in_an_EOID_V6) |
| component | 0..1 | MAY |  | [4395-23302](#C_4395-23302) |  |
| section | 1..1 | SHALL |  | [4395-23303](#C_4395-23303) | [Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45](#S_Findings_Section_in_an_InfectionType_) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-30674) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-30675).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-22573) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.37" (CONF:4395-30254).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30285).

Preferred document title: “Evidence of Infection, Dialysis Report (EOID)”

1. SHALL contain exactly one [1..1] title (CONF:4395-30983).
2. SHALL contain exactly one [1..1] componentOf (CONF:4395-22575).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4395-22576).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code (CONF:4395-22577).
         1. This code SHALL contain exactly one [1..1] @code="AMB" Ambulatory (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 STATIC) (CONF:4395-22578).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4395-22579).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-22580).
            1. This low SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008 STATIC) (CONF:4395-22581).
      3. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4395-22582).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4395-22583).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4395-22584).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4395-22585).

The value of @extension must be a value registered with NHSN.

This id SHALL contain exactly one [1..1] @extension (CONF:4395-22586).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] code (ValueSet: [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC) (CONF:4395-22587).

1. SHALL contain exactly one [1..1] component (CONF:4395-22589).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-22590).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-22591) such that it
         1. SHALL contain exactly one [1..1] [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)](#S_Risk_Factors_Section_in_an_Evidence_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2015-10-01) (CONF:4395-22592).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-22593) such that it
         1. SHALL contain exactly one [1..1] [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01) (CONF:4395-30253).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-23302) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:4395-23303).
      4. If a positive blood culture was obtained (Positive Blood Culture Observation/@negationInd="false") the component containing Findings Section in an Infection-Type Report SHALL be present (CONF:4395-30984).

HAI Laboratory-Identified Organism (LIO) Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.38:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 42: HAI Laboratory-Identified Organism (LIO) Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Encounters Section in a LIO Report (V2)](#S_Encounters_Section_in_a_LIO_Report_V2) (required)  [Findings Section in a LIO Report (V2)](#S_Findings_Section_in_a_LIO_Report_V2) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records the laboratory identification of a microorganism in a specimen. This is not an infection-type report: the presence of the organism is not equivalent to the presence of an infection. These reports are submitted if the facility is monitoring the organism identified. Each report records a single organism.

Preferred document title: “Laboratory-identified Organism Report (LIO)”

Key encounter data:

• The encounter type (inpatient/outpatient) is required.

• An admission date or encounter date is required. (If the patient is an outpatient, the date of specimen collection is also used in the header as the date of admission.)

• The facility identifier is required. Unit identifier and unit type are not recorded in the header.

Other dates and locations:

• The date of admission to the in-facility location where the specimen was collected is recorded in encompassingEncounter/effectiveTime.

• The date of specimen collection (also recorded as admission date if the patient was an outpatient) is recorded in effectiveTime in the Specimen Collection Procedure (LIO) template.

Table 43: HAI Laboratory-Identified Organism (LIO) Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.38:2014-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1129-30547](#C_1129-30547) |  |
| @root | 1..1 | SHALL |  | [1129-30548](#C_1129-30548) | 2.16.840.1.113883.10.20.5.7.2.2.1 |
| templateId | 1..1 | SHALL |  | [1129-22597](#C_1129-22597) |  |
| @root | 1..1 | SHALL |  | [1129-22598](#C_1129-22598) | 2.16.840.1.113883.10.20.5.38 |
| @extension | 1..1 | SHALL |  | [1129-30286](#C_1129-30286) | 2014-12-01 |
| title | 1..1 | SHALL |  | [1129-30610](#C_1129-30610) |  |
| componentOf | 1..1 | SHALL |  | [1129-22599](#C_1129-22599) |  |
| encompassingEncounter | 1..1 | SHALL |  | [1129-22600](#C_1129-22600) |  |
| code | 1..1 | SHALL |  | [1129-22601](#C_1129-22601) | urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode) |
| effectiveTime | 1..1 | SHALL |  | [1129-22603](#C_1129-22603) |  |
| low | 1..1 | SHALL |  | [1129-22604](#C_1129-22604) |  |
| @nullFlavor | 0..1 | MAY |  | [1129-23305](#C_1129-23305) |  |
| @value | 0..1 | MAY |  | [1129-22605](#C_1129-22605) |  |
| location | 1..1 | SHALL |  | [1129-22606](#C_1129-22606) |  |
| healthCareFacility | 1..1 | SHALL |  | [1129-22607](#C_1129-22607) |  |
| id | 1..1 | SHALL |  | [1129-22608](#C_1129-22608) |  |
| @root | 1..1 | SHALL |  | [1129-22609](#C_1129-22609) |  |
| component | 1..1 | SHALL |  | [1129-22610](#C_1129-22610) |  |
| structuredBody | 1..1 | SHALL |  | [1129-22611](#C_1129-22611) |  |
| component | 1..1 | SHALL |  | [1129-22612](#C_1129-22612) |  |
| section | 1..1 | SHALL |  | [1129-30420](#C_1129-30420) | [Findings Section in a LIO Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01](#S_Findings_Section_in_a_LIO_Report_V2) |
| component | 1..1 | SHALL |  | [1129-22614](#C_1129-22614) |  |
| section | 1..1 | SHALL |  | [1129-30421](#C_1129-30421) | [Encounters Section in a LIO Report (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01](#S_Encounters_Section_in_a_LIO_Report_V2) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:1129-30547) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.2.2.1" (CONF:1129-30548).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-22597) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.38" (CONF:1129-22598).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30286).

Preferred document title: “Laboratory-identified Organism Report (LIO)”

1. SHALL contain exactly one [1..1] title (CONF:1129-30610).
2. SHALL contain exactly one [1..1] componentOf (CONF:1129-22599).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:1129-22600).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNEncounterTypeCode](#NHSNEncounterTypeCode) urn:oid:2.16.840.1.113883.13.1 DYNAMIC (CONF:1129-22601).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:1129-22603).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1129-22604).
            1. This low MAY contain zero or one [0..1] @nullFlavor (CONF:1129-23305).
            2. This low MAY contain zero or one [0..1] @value (CONF:1129-22605).  
               Note: Admission Date
            3. If encounter type is IMP, effectiveTime/low/@value is required; if encounter type is AMB, effectiveTime/low/@value is required (use (copy) Date Specimen Collected) (CONF:1129-23306).
         2. The value of the admission date SHALL NOT be earlier than January 1, 1986; SHALL NOT be earlier than the date of birth; and SHALL NOT be later than the event date (CONF:1129-23360).
      3. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:1129-22606).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:1129-22607).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:1129-22608).

This id SHALL contain exactly one [1..1] @root (CONF:1129-22609).

1. SHALL contain exactly one [1..1] component (CONF:1129-22610).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:1129-22611).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:1129-22612) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in a LIO Report (V2)](#S_Findings_Section_in_a_LIO_Report_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01) (CONF:1129-30420).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:1129-22614) such that it
         1. SHALL contain exactly one [1..1] [Encounters Section in a LIO Report (V2)](#S_Encounters_Section_in_a_LIO_Report_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01) (CONF:1129-30421).

HAI Procedure Denominator Report (V2)

[ClinicalDocument: identifier urn:oid:2.16.840.1.113883.10.20.5.35.2 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 1 - US Realm

Table 44: HAI Procedure Denominator Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (required)  [Procedure Details Section in a Procedure Report (V2)](#Procedure_Details_Section_in_a_Procedur) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records a procedure performed.

Preferred document title: “Denominator for Procedure Report”

Key encounter data:

• The encounter type (inpatient or outpatient) is required.

• If the patient was an inpatient, a value for admission date is required.

• The facility id is required. Unit identifier and unit type are not reported.

Other dates and locations:

• The date of the procedure is recorded as effectiveTime in the Procedure Details Clinical Statement in a Procedure Report (V2).

Other notes: The procedure id is recorded in the Procedure Details Clinical Statement in a Procedure Report (V2). NHSN uses this to establish a link between Procedure and SSI Reports.

Table 45: HAI Procedure Denominator Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:oid:2.16.840.1.113883.10.20.5.35.2) | | | | | |
| templateId | 1..1 | SHALL |  | [1101-30309](#C_1101-30309) |  |
| @root | 1..1 | SHALL |  | [1101-30310](#C_1101-30310) | 2.16.840.1.113883.10.20.5.7.2.1.1 |
| templateId | 1..1 | SHALL |  | [1101-22531](#C_1101-22531) |  |
| @root | 1..1 | SHALL |  | [1101-30255](#C_1101-30255) | 2.16.840.1.113883.10.20.5.35.2 |
| title | 1..1 | SHALL |  | [1101-30315](#C_1101-30315) |  |
| componentOf | 1..1 | SHALL |  | [1101-22533](#C_1101-22533) |  |
| encompassingEncounter | 1..1 | SHALL |  | [1101-22534](#C_1101-22534) |  |
| code | 1..1 | SHALL |  | [1101-22535](#C_1101-22535) | urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode) |
| location | 1..1 | SHALL |  | [1101-22537](#C_1101-22537) |  |
| healthCareFacility | 1..1 | SHALL |  | [1101-22538](#C_1101-22538) |  |
| id | 1..1 | SHALL |  | [1101-22539](#C_1101-22539) |  |
| @root | 1..1 | SHALL |  | [1101-22540](#C_1101-22540) |  |
| @extension | 0..1 | MAY |  | [1101-22541](#C_1101-22541) |  |
| code | 0..1 | MAY |  | [1101-22542](#C_1101-22542) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [1101-22545](#C_1101-22545) |  |
| structuredBody | 1..1 | SHALL |  | [1101-22546](#C_1101-22546) |  |
| component | 1..1 | SHALL |  | [1101-22547](#C_1101-22547) |  |
| section | 1..1 | SHALL |  | [1101-30256](#C_1101-30256) | [Procedure Details Section in a Procedure Report (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.43.2](#Procedure_Details_Section_in_a_Procedur) |
| component | 1..1 | SHALL |  | [1101-22551](#C_1101-22551) |  |
| section | 1..1 | SHALL |  | [1101-22552](#C_1101-22552) | [Infection Risk Factors Section in a Procedure Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.35](#S_Infection_Risk_Factors_Section_in_a_P) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:1101-30309) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.2.1.1" (CONF:1101-30310).
2. SHALL contain exactly one [1..1] templateId (CONF:1101-22531) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.35.2" (CONF:1101-30255).

Preferred document title: “Denominator for Procedure Report”

1. SHALL contain exactly one [1..1] title (CONF:1101-30315).
2. SHALL contain exactly one [1..1] componentOf (CONF:1101-22533).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:1101-22534).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code (ValueSet: [NHSNEncounterTypeCode](#NHSNEncounterTypeCode) urn:oid:2.16.840.1.113883.13.1 DYNAMIC) (CONF:1101-22535).
      2. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:1101-22537).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:1101-22538).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:1101-22539).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:1101-22540).

The value of @extension, if supplied, must be a value registered with NHSN.

This id MAY contain zero or one [0..1] @extension (CONF:1101-22541).

* + - * 1. This healthCareFacility MAY contain zero or one [0..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:1101-22542).
    1. If the patient is an inpatient (code/@code='IMP'), admission date is recorded: An effectiveTime element SHALL be present. This effectiveTime SHALL [1..1] contain a low element. This low element SHALL [1..1] contain @value (CONF:1101-22544).

1. SHALL contain exactly one [1..1] component (CONF:1101-22545).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:1101-22546).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:1101-22547) such that it
         1. SHALL contain exactly one [1..1] [Procedure Details Section in a Procedure Report (V2)](#Procedure_Details_Section_in_a_Procedur) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.43.2) (CONF:1101-30256).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:1101-22551) such that it
         1. SHALL contain exactly one [1..1] [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.35) (CONF:1101-22552).

HAI Surgical Site Infection Report (SSI) (V3)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2021-01-01 (closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4, STU 1 - US Realm

Table 46: HAI Surgical Site Infection Report (SSI) (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (required)  [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) (required)  [COVID-19 Section (V2)](#S_COVID19_Section_V2) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records a surgical site infection event.

Preferred document title: “Surgical Site Infection Report (SSI)”.

Key encounter data:

• The encounter type (inpatient or outpatient) is required.

• A value for admission date is required.  
• A discharge date may be recorded.

• The facility id is required.

Other dates and locations:

• The date of the infection is recorded as effectiveTime in the Infection-Type Observation.

Other notes: The procedure id is recorded in the Procedure Details Clinical Statement in an Infection-Type Report. NHSN uses this to establish a link between Procedure and SSI Reports.

Table 47: HAI Surgical Site Infection Report (SSI) (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2021-01-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4475-30311](#C_4475-30311) |  |
| @root | 1..1 | SHALL |  | [4475-30312](#C_4475-30312) | 2.16.840.1.113883.10.20.5.7.4.1 |
| templateId | 1..1 | SHALL |  | [4475-22484](#C_4475-22484) |  |
| @root | 1..1 | SHALL |  | [4475-30276](#C_4475-30276) | 2.16.840.1.113883.10.20.5.33.2 |
| @extension | 0..1 | SHALL |  | [4475-30868](#C_4475-30868) | 2021-01-01 |
| title | 1..1 | SHALL |  | [4475-30316](#C_4475-30316) |  |
| componentOf | 1..1 | SHALL |  | [4475-22486](#C_4475-22486) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4475-22487](#C_4475-22487) |  |
| code | 1..1 | SHALL |  | [4475-22488](#C_4475-22488) | urn:oid:2.16.840.1.113883.13.1 (NHSNEncounterTypeCode) |
| effectiveTime | 1..1 | SHALL |  | [4475-22490](#C_4475-22490) |  |
| low | 1..1 | SHALL |  | [4475-27762](#C_4475-27762) |  |
| @value | 1..1 | SHALL |  | [4475-27763](#C_4475-27763) |  |
| high | 0..1 | MAY |  | [4475-22491](#C_4475-22491) |  |
| @value | 1..1 | SHALL |  | [4475-22492](#C_4475-22492) |  |
| location | 1..1 | SHALL |  | [4475-22493](#C_4475-22493) |  |
| healthCareFacility | 1..1 | SHALL |  | [4475-22494](#C_4475-22494) |  |
| id | 1..1 | SHALL |  | [4475-22495](#C_4475-22495) |  |
| @root | 1..1 | SHALL |  | [4475-22496](#C_4475-22496) |  |
| @extension | 0..1 | MAY |  | [4475-22497](#C_4475-22497) |  |
| code | 0..1 | MAY |  | [4475-22498](#C_4475-22498) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [4475-22501](#C_4475-22501) |  |
| structuredBody | 1..1 | SHALL |  | [4475-22502](#C_4475-22502) |  |
| component | 1..1 | SHALL |  | [4475-22503](#C_4475-22503) |  |
| section | 1..1 | SHALL |  | [4475-22504](#C_4475-22504) | [Infection Details Section in an SSI Report (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.39.2](#S_Infection_Details_Section_in_an_SSI_V2) |
| component | 1..1 | SHALL |  | [4475-30869](#C_4475-30869) |  |
| section | 1..1 | SHALL |  | [4475-30870](#C_4475-30870) | [COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01](#S_COVID19_Section_V2) |
| component | 1..1 | SHALL |  | [4475-22505](#C_4475-22505) |  |
| section | 1..1 | SHALL |  | [4475-22506](#C_4475-22506) | [Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45](#S_Findings_Section_in_an_InfectionType_) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4475-30311) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-30312).
2. SHALL contain exactly one [1..1] templateId (CONF:4475-22484) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.33.2" (CONF:4475-30276).
   2. SHALL contain zero or one [0..1] @extension="2021-01-01" (CONF:4475-30868).

Preferred document title: “Surgical Site Infection Report (SSI)”.

1. SHALL contain exactly one [1..1] title (CONF:4475-30316).
2. SHALL contain exactly one [1..1] componentOf (CONF:4475-22486).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4475-22487).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code (ValueSet: [NHSNEncounterTypeCode](#NHSNEncounterTypeCode) urn:oid:2.16.840.1.113883.13.1 DYNAMIC) (CONF:4475-22488).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4475-22490).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4475-27762).
            1. This low SHALL contain exactly one [1..1] @value (CONF:4475-27763).  
               Note: Admission Date
         2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4475-22491).
            1. The high, if present, SHALL contain exactly one [1..1] @value (CONF:4475-22492).  
               Note: Discharge Date
      3. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4475-22493).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4475-22494).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4475-22495).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4475-22496).

The value of @extension, if supplied, must be a value registered with NHSN.

This id MAY contain zero or one [0..1] @extension (CONF:4475-22497).

* + - * 1. This healthCareFacility MAY contain zero or one [0..1] code (ValueSet: [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC) (CONF:4475-22498).

1. SHALL contain exactly one [1..1] component (CONF:4475-22501).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4475-22502).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22503) such that it
         1. SHALL contain exactly one [1..1] [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.39.2) (CONF:4475-22504).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30869) such that it
         1. SHALL contain exactly one [1..1] [COVID-19 Section (V2)](#S_COVID19_Section_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) (CONF:4475-30870).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22505) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:4475-22506).

HAI Urinary Tract Infection Numerator Report (UTI) (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.34:2021-01-01 (closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4, STU 1 - US Realm

Table 48: HAI Urinary Tract Infection Numerator Report (UTI) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Infection Risk Factors Section in a UTI Report](#S_Infection_Risk_Factors_Section_in_a_U) (required)  [Infection Details Section in a UTI Report](#S_Infection_Details_Section_in_a_UTI_Re) (required)  [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (required)  [COVID-19 Section (V2)](#S_COVID19_Section_V2) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records a urinary tract infection event.

Preferred document title: “Urinary Infection Report (UTI)”

Key encounter data:

• A value for admission date is required.  
• A discharge date may be recorded.

• The facility id, unit identifier, and unit type are required.

Other dates and locations:

• The date of the infection is recorded as effectiveTime in the Infection-Type Observation.

Table 49: HAI Urinary Tract Infection Numerator Report (UTI) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.34:2021-01-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4475-28319](#C_4475-28319) |  |
| @root | 1..1 | SHALL |  | [4475-28320](#C_4475-28320) | 2.16.840.1.113883.10.20.5.7.4.1 |
| templateId | 1..1 | SHALL |  | [4475-22507](#C_4475-22507) |  |
| @root | 1..1 | SHALL |  | [4475-27433](#C_4475-27433) | 2.16.840.1.113883.10.20.5.34 |
| @extension | 1..1 | SHALL |  | [4475-30873](#C_4475-30873) | 2021-01-01 |
| title | 1..1 | SHALL |  | [4475-28408](#C_4475-28408) |  |
| componentOf | 1..1 | SHALL |  | [4475-22509](#C_4475-22509) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4475-22510](#C_4475-22510) |  |
| effectiveTime | 1..1 | SHALL |  | [4475-22511](#C_4475-22511) |  |
| low | 1..1 | SHALL |  | [4475-22512](#C_4475-22512) |  |
| @value | 1..1 | SHALL |  | [4475-22513](#C_4475-22513) |  |
| high | 0..1 | MAY |  | [4475-22514](#C_4475-22514) |  |
| @value | 1..1 | SHALL |  | [4475-22515](#C_4475-22515) |  |
| location | 1..1 | SHALL |  | [4475-22516](#C_4475-22516) |  |
| healthCareFacility | 1..1 | SHALL |  | [4475-22517](#C_4475-22517) |  |
| id | 1..1 | SHALL |  | [4475-22518](#C_4475-22518) |  |
| @root | 1..1 | SHALL |  | [4475-22519](#C_4475-22519) |  |
| @extension | 1..1 | SHALL |  | [4475-22520](#C_4475-22520) |  |
| code | 1..1 | SHALL |  | [4475-22521](#C_4475-22521) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [4475-22523](#C_4475-22523) |  |
| structuredBody | 1..1 | SHALL |  | [4475-22524](#C_4475-22524) |  |
| component | 1..1 | SHALL |  | [4475-22525](#C_4475-22525) |  |
| section | 1..1 | SHALL |  | [4475-22526](#C_4475-22526) | [Infection Risk Factors Section in a UTI Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.36](#S_Infection_Risk_Factors_Section_in_a_U) |
| component | 1..1 | SHALL |  | [4475-30871](#C_4475-30871) |  |
| section | 1..1 | SHALL |  | [4475-30872](#C_4475-30872) | [COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01](#S_COVID19_Section_V2) |
| component | 1..1 | SHALL |  | [4475-22527](#C_4475-22527) |  |
| section | 1..1 | SHALL |  | [4475-22528](#C_4475-22528) | [Infection Details Section in a UTI Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.40](#S_Infection_Details_Section_in_a_UTI_Re) |
| component | 1..1 | SHALL |  | [4475-22529](#C_4475-22529) |  |
| section | 1..1 | SHALL |  | [4475-22530](#C_4475-22530) | [Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45](#S_Findings_Section_in_an_InfectionType_) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4475-28319) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-28320).
2. SHALL contain exactly one [1..1] templateId (CONF:4475-22507) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.34" (CONF:4475-27433).
   2. SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-30873).

Preferred document title: “Urinary Infection Report (UTI)”

1. SHALL contain exactly one [1..1] title (CONF:4475-28408).
2. SHALL contain exactly one [1..1] componentOf (CONF:4475-22509).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4475-22510).
      1. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4475-22511).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4475-22512).
            1. This low SHALL contain exactly one [1..1] @value (CONF:4475-22513).  
               Note: Admission Date
         2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4475-22514).
            1. The high, if present, SHALL contain exactly one [1..1] @value (CONF:4475-22515).  
               Note: Discharge Date
         3. The value of the admission date SHALL NOT be earlier than January 1, 1986; SHALL NOT be earlier than the date of birth; and SHALL NOT be later than the event date (CONF:4475-23362).
      2. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4475-22516).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4475-22517).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4475-22518).

This id SHALL contain exactly one [1..1] @root (CONF:4475-22519).

The value of healthCareFacility/id/@extension must be a value previously registered with NHSN.

This id SHALL contain exactly one [1..1] @extension (CONF:4475-22520).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] code (ValueSet: [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC) (CONF:4475-22521).

1. SHALL contain exactly one [1..1] component (CONF:4475-22523).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4475-22524).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22525) such that it
         1. SHALL contain exactly one [1..1] [Infection Risk Factors Section in a UTI Report](#S_Infection_Risk_Factors_Section_in_a_U) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.36) (CONF:4475-22526).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30871) such that it
         1. SHALL contain exactly one [1..1] [COVID-19 Section (V2)](#S_COVID19_Section_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) (CONF:4475-30872).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22527) such that it
         1. SHALL contain exactly one [1..1] [Infection Details Section in a UTI Report](#S_Infection_Details_Section_in_a_UTI_Re) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.40) (CONF:4475-22528).
      4. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-22529) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:4475-22530).

Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.58:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 50: Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Encounters Section in a LOS/Men Denominator](#S_Encounters_Section_in_a_LOSMen_Denomi) (required)  [Risk Factors Section in a LOS/Men Denominator](#S_Risk_Factors_Section_in_a_LOSMen_Deno) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report records the denominator information for neonatal component late onset sepsis and meningitis (LOS/Men).

Preferred document title: “Late Onset Sepsis/Meningitis Denominator”.

Key required data:

* the facility id
* the month and year the data were collected
* the date admitted to the facility
* the date admitted or transferred to the location within the facility
* if discharged, transferred or expired, the date on which this occurred

Table 51: Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.58:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30685](#C_4395-30685) |  |
| @root | 1..1 | SHALL |  | [4395-30703](#C_4395-30703) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-30702](#C_4395-30702) |  |
| @root | 1..1 | SHALL |  | [4395-30710](#C_4395-30710) | 2.16.840.1.113883.10.20.5.58 |
| @extension | 1..1 | SHALL |  | [4395-30711](#C_4395-30711) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-30712](#C_4395-30712) |  |
| recordTarget | 1..\* | SHALL |  | [4395-30716](#C_4395-30716) |  |
| patientRole | 1..1 | SHALL |  | [4395-30717](#C_4395-30717) |  |
| patient | 0..1 | MAY |  | [4395-30718](#C_4395-30718) |  |
| documentationOf | 1..1 | SHALL |  | [4395-30942](#C_4395-30942) |  |
| serviceEvent | 1..1 | SHALL |  | [4395-30943](#C_4395-30943) |  |
| effectiveTime | 1..1 | SHALL |  | [4395-30944](#C_4395-30944) |  |
| low | 1..1 | SHALL |  | [4395-30945](#C_4395-30945) |  |
| high | 1..1 | SHALL |  | [4395-30946](#C_4395-30946) |  |
| componentOf | 1..1 | SHALL |  | [4395-30686](#C_4395-30686) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4395-30687](#C_4395-30687) |  |
| code | 1..1 | SHALL |  | [4395-30691](#C_4395-30691) |  |
| @code | 1..1 | SHALL |  | [4395-30707](#C_4395-30707) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = IMP |
| @codeSystem | 1..1 | SHALL |  | [4395-30708](#C_4395-30708) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| effectiveTime | 1..1 | SHALL |  | [4395-30692](#C_4395-30692) |  |
| low | 1..1 | SHALL |  | [4395-30693](#C_4395-30693) |  |
| @value | 1..1 | SHALL |  | [4395-30709](#C_4395-30709) |  |
| location | 1..1 | SHALL |  | [4395-30688](#C_4395-30688) |  |
| healthCareFacility | 1..1 | SHALL |  | [4395-30689](#C_4395-30689) |  |
| id | 1..1 | SHALL |  | [4395-30690](#C_4395-30690) |  |
| @root | 1..1 | SHALL |  | [4395-30704](#C_4395-30704) |  |
| @extension | 0..1 | MAY |  | [4395-30705](#C_4395-30705) |  |
| component | 1..1 | SHALL |  | [4395-30694](#C_4395-30694) |  |
| structuredBody | 1..1 | SHALL |  | [4395-30695](#C_4395-30695) |  |
| component | 1..1 | SHALL |  | [4395-30696](#C_4395-30696) |  |
| section | 1..1 | SHALL |  | [4395-30697](#C_4395-30697) | [Risk Factors Section in a LOS/Men Denominator (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01](#S_Risk_Factors_Section_in_a_LOSMen_Deno) |
| component | 1..1 | SHALL |  | [4395-30821](#C_4395-30821) |  |
| section | 1..1 | SHALL |  | [4395-30822](#C_4395-30822) | [Encounters Section in a LOS/Men Denominator (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01](#S_Encounters_Section_in_a_LOSMen_Denomi) |
| component | 0..1 | MAY |  | [4395-30700](#C_4395-30700) |  |
| section | 1..1 | SHALL |  | [4395-30701](#C_4395-30701) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-30685) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-30703).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30702) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.58" (CONF:4395-30710).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30711).

Preferred document title: “Late Onset Sepsis/Meningitis Denominator”

1. SHALL contain exactly one [1..1] title (CONF:4395-30712).
2. SHALL contain at least one [1..\*] recordTarget (CONF:4395-30716).
   1. Such recordTargets SHALL contain exactly one [1..1] patientRole (CONF:4395-30717).
      1. This patientRole MAY contain zero or one [0..1] patient (CONF:4395-30718).
3. SHALL contain exactly one [1..1] documentationOf (CONF:4395-30942).
   1. This documentationOf SHALL contain exactly one [1..1] serviceEvent (CONF:4395-30943).
      1. This serviceEvent SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30944).  
         Note: Month and year the data were collected
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30945).  
            Note: First day of the period reported
         2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:4395-30946).  
            Note: Last day of the period reported
4. SHALL contain exactly one [1..1] componentOf (CONF:4395-30686).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4395-30687).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code (CONF:4395-30691).
         1. This code SHALL contain exactly one [1..1] @code="IMP" Inpatient encounter (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30707).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30708).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30692).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30693).  
            Note: Date admitted to facility
            1. This low SHALL contain exactly one [1..1] @value (CONF:4395-30709).  
               Note: Admission Date
      3. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4395-30688).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4395-30689).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4395-30690).  
               Note: Facility ID

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4395-30704).

The value of @extension, if supplied, must be a value registered with NHSN.

This id MAY contain zero or one [0..1] @extension (CONF:4395-30705).

1. SHALL contain exactly one [1..1] component (CONF:4395-30694).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-30695).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-30696) such that it
         1. SHALL contain exactly one [1..1] [Risk Factors Section in a LOS/Men Denominator](#S_Risk_Factors_Section_in_a_LOSMen_Deno) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01) (CONF:4395-30697).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-30821) such that it
         1. SHALL contain exactly one [1..1] [Encounters Section in a LOS/Men Denominator](#S_Encounters_Section_in_a_LOSMen_Denomi) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01) (CONF:4395-30822).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30700) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30701).

Late Onset Sepsis/Meningitis Event (LOS) Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.53:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 52: Late Onset Sepsis/Meningitis Event (LOS) Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (optional)  [NHSN Comment Section](#S_NHSN_Comment_Section) (required)  [Infection Details in Late Onset Sepsis Report](#S_Infection_Details_in_Late_Onset_Sepsi) (required)  [Risk Factors Section in a LOS/Men Event (V2)](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) (required) |

This report type records a late onset sepsis/meningitis infection event.

Preferred document title: "Late Onset Sepsis/Meningitis Event (LOS)".

For Late Onset Sepsis/Meningitis Event Reports, a Medicaid beneficiary number may be present.

Table 53: Late Onset Sepsis/Meningitis Event (LOS) Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.53:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30728](#C_4395-30728) |  |
| @root | 1..1 | SHALL |  | [4395-30745](#C_4395-30745) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-30962](#C_4395-30962) |  |
| @root | 1..1 | SHALL |  | [4395-30972](#C_4395-30972) | 2.16.840.1.113883.10.20.5.53 |
| @extension | 1..1 | SHALL |  | [4395-30973](#C_4395-30973) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-30729](#C_4395-30729) |  |
| recordTarget | 1..1 | SHALL |  | [4395-30963](#C_4395-30963) |  |
| patientRole | 1..1 | SHALL |  | [4395-30964](#C_4395-30964) |  |
| id | 0..1 | MAY |  | [4395-30965](#C_4395-30965) |  |
| @root | 1..1 | SHALL |  | [4395-30974](#C_4395-30974) | 2.16.840.1.113883.10.20.5.9.28 |
| @extension | 1..1 | SHALL |  | [4395-30975](#C_4395-30975) |  |
| componentOf | 1..1 | SHALL |  | [4395-30730](#C_4395-30730) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4395-30731](#C_4395-30731) |  |
| effectiveTime | 1..1 | SHALL |  | [4395-30954](#C_4395-30954) |  |
| low | 1..1 | SHALL |  | [4395-30966](#C_4395-30966) |  |
| high | 0..1 | MAY |  | [4395-30967](#C_4395-30967) |  |
| location | 1..1 | SHALL |  | [4395-30955](#C_4395-30955) |  |
| healthCareFacility | 1..1 | SHALL |  | [4395-30956](#C_4395-30956) |  |
| id | 1..1 | SHALL |  | [4395-30957](#C_4395-30957) |  |
| @root | 1..1 | SHALL |  | [4395-30968](#C_4395-30968) |  |
| @extension | 1..1 | SHALL |  | [4395-30969](#C_4395-30969) |  |
| code | 1..1 | SHALL |  | [4395-30970](#C_4395-30970) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [4395-30747](#C_4395-30747) |  |
| structuredBody | 1..1 | SHALL |  | [4395-30748](#C_4395-30748) |  |
| component | 1..1 | SHALL |  | [4395-30749](#C_4395-30749) |  |
| section | 1..1 | SHALL |  | [4395-30750](#C_4395-30750) | [Infection Details in Late Onset Sepsis Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01](#S_Infection_Details_in_Late_Onset_Sepsi) |
| component | 1..1 | SHALL |  | [4395-30751](#C_4395-30751) |  |
| section | 1..1 | SHALL |  | [4395-30752](#C_4395-30752) | [Risk Factors Section in a LOS/Men Event (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) |
| component | 0..1 | MAY |  | [4395-30958](#C_4395-30958) |  |
| section | 1..1 | SHALL |  | [4395-30959](#C_4395-30959) | [Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45](#S_Findings_Section_in_an_InfectionType_) |
| component | 1..1 | SHALL |  | [4395-30960](#C_4395-30960) |  |
| section | 1..1 | SHALL |  | [4395-30961](#C_4395-30961) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-30728) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-30745).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30962) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.53" (CONF:4395-30972).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30973).

Preferred document title: "Late Onset Sepsis/Meningitis Event (LOS) Report"

1. SHALL contain exactly one [1..1] title (CONF:4395-30729).
2. SHALL contain exactly one [1..1] recordTarget (CONF:4395-30963).
   1. This recordTarget SHALL contain exactly one [1..1] patientRole (CONF:4395-30964).

For Late Onset Sepsis/Meningitis Event Reports, a Medicaid beneficiary number may be present.

* + 1. This patientRole MAY contain zero or one [0..1] id (CONF:4395-30965) such that it
       1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.9.28" (CONF:4395-30974).  
          Note: Specifies that this is a Medicaid beneficiary number
       2. SHALL contain exactly one [1..1] @extension (CONF:4395-30975).  
          Note: Medicaid beneficiary number

1. SHALL contain exactly one [1..1] componentOf (CONF:4395-30730).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4395-30731).
      1. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30954).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30966).  
            Note: Admission Date
         2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4395-30967).  
            Note: Discharge Date
      2. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4395-30955).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4395-30956).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4395-30957).

The value of @root must be the NHSN assigned Facility OID

This id SHALL contain exactly one [1..1] @root (CONF:4395-30968).

The value of @extension must be a value registered with NHSN

This id SHALL contain exactly one [1..1] @extension (CONF:4395-30969).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:4395-30970).

1. SHALL contain exactly one [1..1] component (CONF:4395-30747).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-30748).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-30749) such that it
         1. SHALL contain exactly one [1..1] [Infection Details in Late Onset Sepsis Report](#S_Infection_Details_in_Late_Onset_Sepsi) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01) (CONF:4395-30750).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-30751) such that it
         1. SHALL contain exactly one [1..1] [Risk Factors Section in a LOS/Men Event (V2)](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01) (CONF:4395-30752).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30958) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:4395-30959).
      4. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-30960) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30961).

Outpatient Procedure Component Same Day Outcome Measures Event Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.54:2019-04-01 (closed)]

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Table 54: Outpatient Procedure Component Same Day Outcome Measures Event Report Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Same Day Outcome Measures Event Details Section](#S_Same_Day_Outcome_Measures_Event_Detai) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records data on each patient who experienced one or more of the same day outcome measures events.

Preferred document title: “Outpatient Procedure Component Same Day Outcome Measures Event Report”.

Key encounter data:

• The encounter type (outpatient) is required.  
• The facility id is required.  
• A value for the date admitted to facility where the outpatient procedure occurred is required.

Table 55: Outpatient Procedure Component Same Day Outcome Measures Event Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.54:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-1](#C_4395-1) |  |
| @root | 1..1 | SHALL |  | [4395-19](#C_4395-19) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-18](#C_4395-18) |  |
| @root | 1..1 | SHALL |  | [4395-26](#C_4395-26) | 2.16.840.1.113883.10.20.5.54 |
| @extension | 1..1 | SHALL |  | [4395-27](#C_4395-27) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-70](#C_4395-70) |  |
| componentOf | 1..1 | SHALL |  | [4395-2](#C_4395-2) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4395-3](#C_4395-3) |  |
| code | 1..1 | SHALL |  | [4395-9](#C_4395-9) |  |
| @code | 1..1 | SHALL |  | [4395-24](#C_4395-24) | AMB |
| @codeSystem | 1..1 | SHALL |  | [4395-25](#C_4395-25) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| effectiveTime | 1..1 | SHALL |  | [4395-4](#C_4395-4) |  |
| low | 1..1 | SHALL |  | [4395-5](#C_4395-5) |  |
| @value | 1..1 | SHALL |  | [4395-20](#C_4395-20) |  |
| location | 1..1 | SHALL |  | [4395-6](#C_4395-6) |  |
| healthCareFacility | 1..1 | SHALL |  | [4395-7](#C_4395-7) |  |
| id | 1..1 | SHALL |  | [4395-8](#C_4395-8) |  |
| @root | 1..1 | SHALL |  | [4395-21](#C_4395-21) |  |
| component | 1..1 | SHALL |  | [4395-10](#C_4395-10) |  |
| structuredBody | 1..1 | SHALL |  | [4395-11](#C_4395-11) |  |
| component | 1..1 | SHALL |  | [4395-12](#C_4395-12) |  |
| section | 1..1 | SHALL |  | [4395-13](#C_4395-13) | [Same Day Outcome Measures Event Details Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01](#S_Same_Day_Outcome_Measures_Event_Detai) |
| component | 0..1 | MAY |  | [4395-30561](#C_4395-30561) |  |
| section | 1..1 | SHALL |  | [4395-30562](#C_4395-30562) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-1) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-19).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-18) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.54" (CONF:4395-26).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-27).

Preferred document title: “Outpatient Procedure Component Same Day Outcome Measures Event Report”.

1. SHALL contain exactly one [1..1] title (CONF:4395-70).
2. SHALL contain exactly one [1..1] componentOf (CONF:4395-2).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4395-3).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code (CONF:4395-9).
         1. This code SHALL contain exactly one [1..1] @code="AMB" Outpatient (CONF:4395-24).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-25).
      2. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4395-4).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-5).
            1. This low SHALL contain exactly one [1..1] @value (CONF:4395-20).  
               Note: Admission Date
      3. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4395-6).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4395-7).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4395-8).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4395-21).

1. SHALL contain exactly one [1..1] component (CONF:4395-10).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-11).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-12) such that it
         1. SHALL contain exactly one [1..1] [Same Day Outcome Measures Event Details Section](#S_Same_Day_Outcome_Measures_Event_Detai) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01) (CONF:4395-13).
      2. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30561) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30562).

Outpatient Procedure Surgical Site Infection (SSI) Event Report

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.57:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 56: Outpatient Procedure Surgical Site Infection (SSI) Event Report Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [Infection Details Section in an OPC SSI Report](#S_Infection_Details_Section_in_an_OPC_S) (required)  [Findings Section in an OPC SSI Report](#S_Findings_Section_in_an_OPC_SSI_Report) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records surgical site infection events for outpatient procedure.

Preferred document title: “Outpatient Procedure Surgical Site Infection (SSI) Event”.

Key encounter data:

• The encounter type (outpatient) is required.  
• The facility id is required.  
• A value for the date admitted to facility where the outpatient procedure occurred is required.

Other dates and locations:

• The date of the infection is recorded as effectiveTime in the Infection-Type Observation.

Other notes: The procedure id is recorded in the id of the Procedure Details in an OPC SSI Event template. NHSN uses this to establish a link between OPC Procedure for Denominator and OPC SSI Reports.

Table 57: Outpatient Procedure Surgical Site Infection (SSI) Event Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.57:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-28](#C_4395-28) |  |
| @root | 1..1 | SHALL |  | [4395-46](#C_4395-46) | 2.16.840.1.113883.10.20.5.7.3.4 |
| templateId | 1..1 | SHALL |  | [4395-45](#C_4395-45) |  |
| @root | 1..1 | SHALL |  | [4395-53](#C_4395-53) | 2.16.840.1.113883.10.20.5.57 |
| @extension | 1..1 | SHALL |  | [4395-54](#C_4395-54) | 2019-04-01 |
| title | 1..1 | SHALL |  | [4395-71](#C_4395-71) |  |
| componentOf | 1..1 | SHALL |  | [4395-29](#C_4395-29) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4395-30](#C_4395-30) |  |
| code | 1..1 | SHALL |  | [4395-36](#C_4395-36) |  |
| @code | 1..1 | SHALL |  | [4395-51](#C_4395-51) | AMB |
| @codeSystem | 1..1 | SHALL |  | [4395-52](#C_4395-52) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| effectiveTime | 1..1 | SHALL |  | [4395-31](#C_4395-31) |  |
| low | 1..1 | SHALL |  | [4395-32](#C_4395-32) |  |
| @value | 1..1 | SHALL |  | [4395-47](#C_4395-47) |  |
| location | 1..1 | SHALL |  | [4395-33](#C_4395-33) |  |
| healthCareFacility | 1..1 | SHALL |  | [4395-34](#C_4395-34) |  |
| id | 1..1 | SHALL |  | [4395-35](#C_4395-35) |  |
| @root | 1..1 | SHALL |  | [4395-48](#C_4395-48) |  |
| @extension | 0..1 | MAY |  | [4395-49](#C_4395-49) |  |
| component | 1..1 | SHALL |  | [4395-37](#C_4395-37) |  |
| structuredBody | 1..1 | SHALL |  | [4395-38](#C_4395-38) |  |
| component | 1..1 | SHALL |  | [4395-39](#C_4395-39) |  |
| section | 1..1 | SHALL |  | [4395-40](#C_4395-40) | [Infection Details Section in an OPC SSI Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01](#S_Infection_Details_Section_in_an_OPC_S) |
| component | 1..1 | SHALL |  | [4395-41](#C_4395-41) |  |
| section | 1..1 | SHALL |  | [4395-42](#C_4395-42) | [Findings Section in an OPC SSI Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01](#S_Findings_Section_in_an_OPC_SSI_Report) |
| component | 0..1 | MAY |  | [4395-30940](#C_4395-30940) |  |
| section | 1..1 | SHALL |  | [4395-30941](#C_4395-30941) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4395-28) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.4" (CONF:4395-46).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-45) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.57" (CONF:4395-53).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-54).

Preferred document title: “Outpatient Procedure Surgical Site Infection (SSI) Event”.

1. SHALL contain exactly one [1..1] title (CONF:4395-71).
2. SHALL contain exactly one [1..1] componentOf (CONF:4395-29).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4395-30).
      1. This encompassingEncounter SHALL contain exactly one [1..1] code (CONF:4395-36).
         1. This code SHALL contain exactly one [1..1] @code="AMB" Outpatient (CONF:4395-51).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-52).

Date of Encounter: Record the date of the encounter (admission) at the outpatient procedure facility. Encounter is defined as the completion of the registration process for the procedure facility.

* + 1. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4395-31).
       1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-32).
          1. This low SHALL contain exactly one [1..1] @value (CONF:4395-47).  
             Note: Admission Date
    2. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4395-33).
       1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4395-34).
          1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4395-35).

The value of @root must be the NHSN assigned Facility OID.

This id SHALL contain exactly one [1..1] @root (CONF:4395-48).

The value of @extension, if supplied, must be a value registered with NHSN.

This id MAY contain zero or one [0..1] @extension (CONF:4395-49).

1. SHALL contain exactly one [1..1] component (CONF:4395-37).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4395-38).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-39) such that it
         1. SHALL contain exactly one [1..1] [Infection Details Section in an OPC SSI Report](#S_Infection_Details_Section_in_an_OPC_S) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01) (CONF:4395-40).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4395-41) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an OPC SSI Report](#S_Findings_Section_in_an_OPC_SSI_Report) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01) (CONF:4395-42).
      3. This structuredBody MAY contain zero or one [0..1] component (CONF:4395-30940) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4395-30941).

Ventilator Associated Event (VAE) Report (V2)

[ClinicalDocument: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.51:2021-01-01 (closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4, STU 1 - US Realm

Table 58: Ventilator Associated Event (VAE) Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
|  | [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (required)  [Infection Details Section in a VAE Report](#S_Infection_Details_Section_in_a_VAE_Re) (required)  [Risk Factors Section in a VAE Report](#S_Risk_Factors_Section_in_a_VAE_Report) (required)  [NHSN Comment Section](#S_NHSN_Comment_Section) (optional)  [COVID-19 Section (V2)](#S_COVID19_Section_V2) (required) |

Note: The section on “Template Ids in this Guide” includes a containment table showing all the entries within each report type.

This report type records a ventilator associated infection event.

Preferred document title: “Ventilator Associated Event (VAE)”

Key encounter data:

• A value for admission date is required.  
• A value for discharge date may be recorded.  
• The facility id, unit identifier, and unit type are required.

Other dates and locations:

• The event date is recorded as effectiveTime in the Infection-Type Observation.

Table 59: Ventilator Associated Event (VAE) Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| ClinicalDocument (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.51:2021-01-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4475-97](#C_4475-97) |  |
| @root | 1..1 | SHALL |  | [4475-113](#C_4475-113) | 2.16.840.1.113883.10.20.5.7.4.1 |
| templateId | 1..1 | SHALL |  | [4475-111](#C_4475-111) |  |
| @root | 1..1 | SHALL |  | [4475-122](#C_4475-122) | 2.16.840.1.113883.10.20.5.51 |
| @extension | 1..1 | SHALL |  | [4475-123](#C_4475-123) | 2021-01-01 |
| title | 1..1 | SHALL |  | [4475-28469](#C_4475-28469) |  |
| componentOf | 1..1 | SHALL |  | [4475-98](#C_4475-98) |  |
| encompassingEncounter | 1..1 | SHALL |  | [4475-99](#C_4475-99) |  |
| effectiveTime | 1..1 | SHALL |  | [4475-100](#C_4475-100) |  |
| low | 1..1 | SHALL |  | [4475-101](#C_4475-101) |  |
| @value | 1..1 | SHALL |  | [4475-114](#C_4475-114) |  |
| high | 0..1 | MAY |  | [4475-102](#C_4475-102) |  |
| @value | 1..1 | SHALL |  | [4475-115](#C_4475-115) |  |
| location | 1..1 | SHALL |  | [4475-103](#C_4475-103) |  |
| healthCareFacility | 1..1 | SHALL |  | [4475-104](#C_4475-104) |  |
| id | 1..1 | SHALL |  | [4475-105](#C_4475-105) |  |
| @root | 1..1 | SHALL |  | [4475-117](#C_4475-117) |  |
| @extension | 1..1 | SHALL |  | [4475-118](#C_4475-118) |  |
| code | 1..1 | SHALL |  | [4475-119](#C_4475-119) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| component | 1..1 | SHALL |  | [4475-106](#C_4475-106) |  |
| structuredBody | 1..1 | SHALL |  | [4475-107](#C_4475-107) |  |
| component | 1..1 | SHALL |  | [4475-108](#C_4475-108) |  |
| section | 1..1 | SHALL |  | [4475-136](#C_4475-136) | [Infection Details Section in a VAE Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01](#S_Infection_Details_Section_in_a_VAE_Re) |
| component | 1..1 | SHALL |  | [4475-30874](#C_4475-30874) |  |
| section | 1..1 | SHALL |  | [4475-30875](#C_4475-30875) | [COVID-19 Section (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01](#S_COVID19_Section_V2) |
| component | 1..1 | SHALL |  | [4475-109](#C_4475-109) |  |
| section | 1..1 | SHALL |  | [4475-137](#C_4475-137) | [Findings Section in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45](#S_Findings_Section_in_an_InfectionType_) |
| component | 1..1 | SHALL |  | [4475-110](#C_4475-110) |  |
| section | 1..1 | SHALL |  | [4475-171](#C_4475-171) | [Risk Factors Section in a VAE Report (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01](#S_Risk_Factors_Section_in_a_VAE_Report) |
| component | 0..1 | MAY |  | [4475-185](#C_4475-185) |  |
| section | 1..1 | SHALL |  | [4475-186](#C_4475-186) | [NHSN Comment Section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01](#S_NHSN_Comment_Section) |

1. Conforms to [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.27).

This template id represents the IG in which this template is published.

1. SHALL contain exactly one [1..1] templateId (CONF:4475-97) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-113).
2. SHALL contain exactly one [1..1] templateId (CONF:4475-111) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.51" (CONF:4475-122).
   2. SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-123).

Preferred document title: “Ventilator Associated Event (VAE)”

1. SHALL contain exactly one [1..1] title (CONF:4475-28469).
2. SHALL contain exactly one [1..1] componentOf (CONF:4475-98).
   1. This componentOf SHALL contain exactly one [1..1] encompassingEncounter (CONF:4475-99).
      1. This encompassingEncounter SHALL contain exactly one [1..1] effectiveTime (CONF:4475-100).
         1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4475-101).
            1. This low SHALL contain exactly one [1..1] @value (CONF:4475-114).  
               Note: Admission Date
         2. This effectiveTime MAY contain zero or one [0..1] high (CONF:4475-102).
            1. The high, if present, SHALL contain exactly one [1..1] @value (CONF:4475-115).  
               Note: Discharge Date
         3. The value of the admission date SHALL NOT be earlier than January 1, 1986; SHALL NOT be earlier than the date of birth; and SHALL NOT be later than the event date (CONF:4475-116).
      2. This encompassingEncounter SHALL contain exactly one [1..1] location (CONF:4475-103).
         1. This location SHALL contain exactly one [1..1] healthCareFacility (CONF:4475-104).
            1. This healthCareFacility SHALL contain exactly one [1..1] id (CONF:4475-105).

This id SHALL contain exactly one [1..1] @root (CONF:4475-117).

The value of healthCareFacility/id/@extension must be a value previously registered with NHSN.

This id SHALL contain exactly one [1..1] @extension (CONF:4475-118).

* + - * 1. This healthCareFacility SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:4475-119).

1. SHALL contain exactly one [1..1] component (CONF:4475-106).
   1. This component SHALL contain exactly one [1..1] structuredBody (CONF:4475-107).
      1. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-108) such that it
         1. SHALL contain exactly one [1..1] [Infection Details Section in a VAE Report](#S_Infection_Details_Section_in_a_VAE_Re) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01) (CONF:4475-136).
      2. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30874) such that it
         1. SHALL contain exactly one [1..1] [COVID-19 Section (V2)](#S_COVID19_Section_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) (CONF:4475-30875).
      3. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-109) such that it
         1. SHALL contain exactly one [1..1] [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) (CONF:4475-137).
      4. This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-110) such that it
         1. SHALL contain exactly one [1..1] [Risk Factors Section in a VAE Report](#S_Risk_Factors_Section_in_a_VAE_Report) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01) (CONF:4475-171).
      5. This structuredBody MAY contain zero or one [0..1] component (CONF:4475-185) such that it
         1. SHALL contain exactly one [1..1] [NHSN Comment Section](#S_NHSN_Comment_Section) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) (CONF:4475-186).

# Section-Level Templates

HAI Section Generic Constraints

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.4.26 (closed)]

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This template records the constraints that apply to all sections specified in the NHSN HAI Implementation Guide.

Table 60: HAI Section Generic Constraints Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26) | | | | | |
| templateId | 1..1 | SHALL |  | [86-21958](#C_86-21958) |  |
| @root | 1..1 | SHALL |  | [86-21959](#C_86-21959) | 2.16.840.1.113883.10.20.5.4.26 |
| code | 1..1 | SHALL |  | [86-21953](#C_86-21953) |  |
| @code | 1..1 | SHALL |  | [86-21954](#C_86-21954) | urn:oid:2.16.840.1.113883.6.1 (LOINC) |
| title | 1..1 | SHALL |  | [86-21955](#C_86-21955) |  |
| text | 1..1 | SHALL |  | [86-21956](#C_86-21956) |  |
| entry | 1..\* | SHALL |  | [86-21957](#C_86-21957) |  |

1. SHALL contain exactly one [1..1] templateId (CONF:86-21958) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.4.26" (CONF:86-21959).
2. SHALL contain exactly one [1..1] code (CONF:86-21953).
   1. This code SHALL contain exactly one [1..1] @code (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:86-21954).
3. SHALL contain exactly one [1..1] title (CONF:86-21955).
4. SHALL contain exactly one [1..1] text (CONF:86-21956).
5. SHALL contain at least one [1..\*] entry (CONF:86-21957).

COVID-19 Section (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01 (closed)]

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Table 61: COVID-19 Section (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) (required)  [HAI Surgical Site Infection Report (SSI) (V3)](#D_HAI_Surgical_Site_Infection_Report_V3) (required)  [HAI Urinary Tract Infection Numerator Report (UTI) (V2)](#D_HAI_Urinary_Tract_Infection_Num_V2) (required)  [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) (required) | [NHSN COVID-19 Condition Observation (V2)](#E_NHSN_COVID19_Condition_Observation_V2) (required) |

This section template contains information about whether or not the patient had COVID-19.

Table 62: COVID-19 Section (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4475-20](#C_4475-20) |  |
| @root | 1..1 | SHALL |  | [4475-23](#C_4475-23) | 2.16.840.1.113883.10.20.5.5.80 |
| @extension | 1..1 | SHALL |  | [4475-24](#C_4475-24) | 2021-01-01 |
| code | 1..1 | SHALL |  | [4475-21](#C_4475-21) |  |
| @code | 1..1 | SHALL |  | [4475-25](#C_4475-25) | 94721-8 |
| @codeSystem | 1..1 | SHALL |  | [4475-26](#C_4475-26) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4475-19](#C_4475-19) |  |
| observation | 1..1 | SHALL |  | [4475-27](#C_4475-27) | [NHSN COVID-19 Condition Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01](#E_NHSN_COVID19_Condition_Observation_V2) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4475-20) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.80" (CONF:4475-23).
   2. SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-24).
3. SHALL contain exactly one [1..1] code (CONF:4475-21).
   1. This code SHALL contain exactly one [1..1] @code="94721-8" COVID-19 Evaluation note (CONF:4475-25).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4475-26).
4. SHALL contain exactly one [1..1] entry (CONF:4475-19).
   1. This entry SHALL contain exactly one [1..1] [NHSN COVID-19 Condition Observation (V2)](#E_NHSN_COVID19_Condition_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01) (CONF:4475-27).

Figure 2: COVID-19 Section Example

<section>

<templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<templateId root="2.16.840.1.113883.10.20.5.5.80" extension="2021-01-01"/>

<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="94721-8"

displayName="COVID-19 Evaluation note"/>

<title>COVID-19 Section</title>

<text>...</text>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- [HAI R4D1] Confirmed or Suspected COVID-19 (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.270" extension="2021-01-01"/>

...

</observation>

</entry>

</section>

Details Section in an Evidence of Infection (Dialysis) Report (V6)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01 (closed)]

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Table 63: Details Section in an Evidence of Infection (Dialysis) Report (V6) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Evidence of Infection (Dialysis) Report (V6)](#D_HAI_Evidence_of_Infection_Dialysis_V6) (required) | [Death Observation in an Evidence of Infection (Dialysis) Report](#E_Death_Observation_in_an_Evidence_of_I) (required)  [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) (required)  [Hospital Admission Clinical Statement](#E_Hospital_Admission_Clinical_Statement) (required)  [Dialysis Clinic Admission Clinical Statement](#E_Dialysis_Clinic_Admission_Clinical_St) (required)  [Loss of Vascular Access Observation](#E_Loss_of_Vascular_Access_Observation) (required)  [Infection Indicator Organizer (V5)](#E_Infection_Indicator_Organizer_V5) (required) |

The clinical statements in this section record the criteria used in the diagnosis of an infection or the identification of an adverse reaction. They also record any infection indicators, dialysis clinic admission date in comparison to event date, whether the patient was hospitalized, and death observation.

Table 64: Details Section in an Evidence of Infection (Dialysis) Report (V6) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-22338](#C_4395-22338) |  |
| @root | 1..1 | SHALL |  | [4395-30224](#C_4395-30224) | 2.16.840.1.113883.10.20.5.5.41 |
| @extension | 1..1 | SHALL |  | [4395-30282](#C_4395-30282) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-22340](#C_4395-22340) |  |
| @code | 1..1 | SHALL |  | [4395-22341](#C_4395-22341) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [4395-30598](#C_4395-30598) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4395-22342](#C_4395-22342) |  |
| organizer | 1..1 | SHALL |  | [4395-30428](#C_4395-30428) | [Infection Indicator Organizer (V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01](#E_Infection_Indicator_Organizer_V5) |
| entry | 1..1 | SHALL |  | [4395-22344](#C_4395-22344) |  |
| organizer | 1..1 | SHALL |  | [4395-22345](#C_4395-22345) | [Criteria of Diagnosis Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180](#E_Criteria_of_Diagnosis_Organizer) |
| entry | 1..1 | SHALL |  | [4395-22346](#C_4395-22346) |  |
| act | 1..1 | SHALL |  | [4395-22347](#C_4395-22347) | [Hospital Admission Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.133](#E_Hospital_Admission_Clinical_Statement) |
| entry | 1..1 | SHALL |  | [4395-22348](#C_4395-22348) |  |
| observation | 1..1 | SHALL |  | [4395-22349](#C_4395-22349) | [Death Observation in an Evidence of Infection (Dialysis) Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.121](#E_Death_Observation_in_an_Evidence_of_I) |
| entry | 1..1 | SHALL |  | [4395-22350](#C_4395-22350) |  |
| encounter | 1..1 | SHALL |  | [4395-22351](#C_4395-22351) | [Dialysis Clinic Admission Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.124](#E_Dialysis_Clinic_Admission_Clinical_St) |
| entry | 1..1 | SHALL |  | [4395-30222](#C_4395-30222) |  |
| observation | 1..1 | SHALL |  | [4395-30223](#C_4395-30223) | [Loss of Vascular Access Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.203](#E_Loss_of_Vascular_Access_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-22338) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.41" (CONF:4395-30224).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30282).
3. SHALL contain exactly one [1..1] code (CONF:4395-22340).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:4395-22341).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30598).
4. SHALL contain exactly one [1..1] entry (CONF:4395-22342) such that it
   1. SHALL contain exactly one [1..1] [Infection Indicator Organizer (V5)](#E_Infection_Indicator_Organizer_V5) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01) (CONF:4395-30428).
5. SHALL contain exactly one [1..1] entry (CONF:4395-22344) such that it
   1. SHALL contain exactly one [1..1] [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180) (CONF:4395-22345).
6. SHALL contain exactly one [1..1] entry (CONF:4395-22346) such that it
   1. SHALL contain exactly one [1..1] [Hospital Admission Clinical Statement](#E_Hospital_Admission_Clinical_Statement) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.133) (CONF:4395-22347).
7. SHALL contain exactly one [1..1] entry (CONF:4395-22348) such that it
   1. SHALL contain exactly one [1..1] [Death Observation in an Evidence of Infection (Dialysis) Report](#E_Death_Observation_in_an_Evidence_of_I) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.121) (CONF:4395-22349).
8. SHALL contain exactly one [1..1] entry (CONF:4395-22350) such that it
   1. SHALL contain exactly one [1..1] [Dialysis Clinic Admission Clinical Statement](#E_Dialysis_Clinic_Admission_Clinical_St) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.124) (CONF:4395-22351).
9. SHALL contain exactly one [1..1] entry (CONF:4395-30222) such that it
   1. SHALL contain exactly one [1..1] [Loss of Vascular Access Observation](#E_Loss_of_Vascular_Access_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.203) (CONF:4395-30223).

Figure 3: Details Section in an Evidence of Infection (Dialysis) Report (V5) Example

<section>

<!-- [HAI R1] HAI Section Generic Constraints template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D1.1] Details Section in an Evidence of Infection (Dialysis) Report (V5) -->

<templateId root="2.16.840.1.113883.10.20.5.5.41"

extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details Section"/>

<title>Details</title>

...

<entry typeCode="DRIV">

<organizer classCode="CLUSTER" moodCode="EVN”>

<!-- [HAI R3D1.1] Infection Indication Organizer (V5) -->

<templateId root="2.16.840.1.113883.10.20.5.6.181"

extension="2019-04-01"/>

...

</organizer >

</entry>

<entry typeCode="DRIV">

< organizer classCode="CLUSTER" moodCode="EVN”>

<!-- Criteria of Diagnosis Organizer -->

<templateId root="2.16.840.1.113883.10.20.5.6.180"/>

...

</organizer >

</entry>

<entry typeCode="DRIV">

<act classCode="ACT" moodCode="EVN" negationInd="false">

<!—Hospital Admission Clinical Statement -->

<templateId root="2.16.840.1.113883.10.20.5.6.133"/>

...

</act >

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" nullFlavor="NI">

<!-- C-CDA Deceased Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.79"/>

<!-- HAI Death Observation in an Evidence of Infection (Dialysis) Report -->

<templateId root="2.16.840.1.113883.10.20.5.6.121"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- Dialysis Clinic Admission Clinical Statement -->

<templateId root="2.16.840.1.113883.10.20.5.6.124"/>

...

</encounter >

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation Type -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- Loss of Vascular Access Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.203"/>

...

</observation>

</entry>

</section>

Encounters Section in a LIO Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 65: Encounters Section in a LIO Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Laboratory-Identified Organism (LIO) Report (V2)](#D_HAI_LaboratoryIdentified_Organism_LV2) (required) | [Prior Discharge Encounter (V2)](#E_Prior_Discharge_Encounter_V2) (required)  [Last Physical Overnight Location Act](#E_Last_Physical_Overnight_Location_Act) (required)  [Other Facility Discharge Act](#E_Other_Facility_Discharge_Act) (required) |

In a LIO Report, the Encounters Section contains entries representing the last physical overnight location of the patient along with whether in the past four weeks the patient was either discharged from the facility or from another facility. It also records the date of that discharge.

Table 66: Encounters Section in a LIO Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1129-22364](#C_1129-22364) |  |
| @root | 1..1 | SHALL |  | [1129-22365](#C_1129-22365) | 2.16.840.1.113883.10.20.5.5.44 |
| @extension | 1..1 | SHALL |  | [1129-30283](#C_1129-30283) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-22366](#C_1129-22366) |  |
| @code | 1..1 | SHALL |  | [1129-22367](#C_1129-22367) | 46240-8 |
| @codeSystem | 1..1 | SHALL |  | [1129-30599](#C_1129-30599) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [1129-22368](#C_1129-22368) |  |
| encounter | 1..1 | SHALL |  | [1129-30422](#C_1129-30422) | [Prior Discharge Encounter (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01](#E_Prior_Discharge_Encounter_V2) |
| entry | 1..1 | SHALL |  | [1129-28240](#C_1129-28240) |  |
| act | 1..1 | SHALL |  | [1129-30588](#C_1129-30588) | [Other Facility Discharge Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01](#E_Other_Facility_Discharge_Act) |
| entry | 1..1 | SHALL |  | [1129-30273](#C_1129-30273) |  |
| act | 1..1 | SHALL |  | [1129-30575](#C_1129-30575) | [Last Physical Overnight Location Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01](#E_Last_Physical_Overnight_Location_Act) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-22364) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.44" (CONF:1129-22365).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30283).
3. SHALL contain exactly one [1..1] code (CONF:1129-22366).
   1. This code SHALL contain exactly one [1..1] @code="46240-8" History of Encounters (CONF:1129-22367).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30599).
4. SHALL contain exactly one [1..1] entry (CONF:1129-22368) such that it
   1. SHALL contain exactly one [1..1] [Prior Discharge Encounter (V2)](#E_Prior_Discharge_Encounter_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01) (CONF:1129-30422).
5. SHALL contain exactly one [1..1] entry (CONF:1129-28240) such that it
   1. SHALL contain exactly one [1..1] [Other Facility Discharge Act](#E_Other_Facility_Discharge_Act) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01) (CONF:1129-30588).
6. SHALL contain exactly one [1..1] entry (CONF:1129-30273) such that it
   1. SHALL contain exactly one [1..1] [Last Physical Overnight Location Act](#E_Last_Physical_Overnight_Location_Act) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01) (CONF:1129-30575).

Figure 4: Encounters Section in an LIO Report (V2) Example

<section>

<!-- HAI Generic section templateId -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- Encounters Section in an LIO Report (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.5.44"

extension="2014-12-01" />

<code code="46240-8"

codeSystem="2.16.840.1.113883.6.1"

displayName="History of Encounters" />

<title>Encounters</title>

<text>...</text>

<entry typeCode="DRIV">

<!-- Prior Discharge Encounter (V2) -->

<encounter classCode="ENC" moodCode="EVN">

<!-- C-CDA Encounter activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- HAI Prior Discharge Encounter (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.151"

extension="2014-12-01" />

...

</encounter>

</entry>

<entry typeCode="DRIV">

<!-- Other Facility Discharge Act -->

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.228"

extension="2014-12-01" />

...

</act>

</entry>

<entry typeCode="DRIV">

<!-- Last Physical Overnight Location Act -->

<act classCode="ACT" moodCode="EVN">

<!-- Last Physical Overnight Location Act templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.227"

extension="2014-12-01" />

...

</act>

</entry>

</section>

Encounters Section in a LOS/Men Denominator

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01 (closed)]

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Table 67: Encounters Section in a LOS/Men Denominator Contexts

| Contained By: | Contains: |
| --- | --- |
| [Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report](#D_Late_Onset_SepsisMeningitis_Denominat) (required) | [Location Within Facility Encounter](#E_Location_Within_Facility_Encounter) (required) |

In a LOS/Men Denominator, the Encounters Section contains information about an infant's location within the facility, the date admitted or transferred to that location, the disposition of the infant and, if the infant was discharged, transferred, or expired, the date on which this occurred.

Table 68: Encounters Section in a LOS/Men Denominator Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30811](#C_4395-30811) |  |
| @root | 1..1 | SHALL |  | [4395-30817](#C_4395-30817) | 2.16.840.1.113883.10.20.5.5.71 |
| @extension | 1..1 | SHALL |  | [4395-30818](#C_4395-30818) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30812](#C_4395-30812) |  |
| @code | 1..1 | SHALL |  | [4395-30819](#C_4395-30819) | 46240-8 |
| @codeSystem | 1..1 | SHALL |  | [4395-30820](#C_4395-30820) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4395-30809](#C_4395-30809) |  |
| encounter | 1..1 | SHALL |  | [4395-30810](#C_4395-30810) | [Location Within Facility Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01](#E_Location_Within_Facility_Encounter) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30811) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.71" (CONF:4395-30817).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30818).
3. SHALL contain exactly one [1..1] code (CONF:4395-30812).
   1. This code SHALL contain exactly one [1..1] @code="46240-8" History of Encounters (CONF:4395-30819).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30820).
4. SHALL contain exactly one [1..1] entry (CONF:4395-30809) such that it
   1. SHALL contain exactly one [1..1] [Location Within Facility Encounter](#E_Location_Within_Facility_Encounter) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01) (CONF:4395-30810).

Figure 5: Encounters Section in a LOS/MEN Denominator Example

<section>

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D4] Encounters Section in a LOS/MEN Denominator -->

<templateId root="2.16.840.1.113883.10.20.5.5.999999" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="46240-8"

displayName="History of Encounters" />

<title>Location Within Facility Encounter</title>

<text>...</text>

<entry>

<!-- [HAI R3D3] Location Within Facility Encounter -->

<encounter classCode="ENC" moodCode="EVN">

<!-- [C-CDA R1.1] Encounter activity -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- [HAI R3D3] Location Within Facility Encounter -->

<templateId root="2.16.840.1.113883.10.20.5.262" extension="2019-04-01" />

...

</encounter>

</entry>

</section>

Findings Section in a LIO Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01 (closed)]

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Table 69: Findings Section in a LIO Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Laboratory-Identified Organism (LIO) Report (V2)](#D_HAI_LaboratoryIdentified_Organism_LV2) (required) | [Pathogen Identified Observation (LIO) (V2)](#E_Pathogen_Identified_Observation_LIO_V2) (required) |

The Findings Section in a LIO Report records a laboratory-identified microorganism. It differs from the Findings Section in Infection Reports in that it records only one microorganism (if more were identified, each is recorded in a separate report), details about the specimen collection are recorded, and no drug-susceptibility test results are recorded. If no organism is found, no report is submitted; thus, the explicit statement "no organism found", which is used in the Findings Section in Infection Reports, is not used here.

Table 70: Findings Section in a LIO Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.46:2014-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1129-22378](#C_1129-22378) |  |
| @root | 1..1 | SHALL |  | [1129-22379](#C_1129-22379) | 2.16.840.1.113883.10.20.5.5.46 |
| @extension | 1..1 | SHALL |  | [1129-30463](#C_1129-30463) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-22380](#C_1129-22380) |  |
| @code | 1..1 | SHALL |  | [1129-22381](#C_1129-22381) | 18769-0 |
| @codeSystem | 1..1 | SHALL |  | [1129-30600](#C_1129-30600) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [1129-22382](#C_1129-22382) |  |
| observation | 1..1 | SHALL |  | [1129-30419](#C_1129-30419) | [Pathogen Identified Observation (LIO) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01](#E_Pathogen_Identified_Observation_LIO_V2) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-22378) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.46" (CONF:1129-22379).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30463).
3. SHALL contain exactly one [1..1] code (CONF:1129-22380).
   1. This code SHALL contain exactly one [1..1] @code="18769-0" Findings Section (CONF:1129-22381).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30600).
4. SHALL contain exactly one [1..1] entry (CONF:1129-22382) such that it
   1. SHALL contain exactly one [1..1] [Pathogen Identified Observation (LIO) (V2)](#E_Pathogen_Identified_Observation_LIO_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01) (CONF:1129-30419).

Figure 6: Findings Section in an LIO Report (V2) Example

<section>

<!-- HAI Generic section template -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- HAI Findings Section in an LIO Report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.46"

extension="2014-12-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="18769-0"

displayName="Findings Section" />

<title>Findings</title>

...

<entry typeCode="DRIV">

<observation>

<!-- Pathogen Identified Observation (LIO) V2 -->

<templateId root="2.16.840.1.113883.10.20.5.6.146"

extension="2014-12-01" />

...

</observation>

</entry>

</section>

Findings Section in an ARO Report (V4)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2020-04-01 (closed)]

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Table 71: Findings Section in an ARO Report (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI AUR Antimicrobial Resistance Option (ARO) Report (V5)](#D_HAI_AUR_Antimicrobial_Resistance_V5) (required) | [Specimen Collection Procedure (ARO) (V4)](#E_Specimen_Collection_Procedure_ARO_V4) (required) |

The Findings Section in an ARO Report records the details concerning one pathogen isolate and its related antimicrobial susceptibility testing results.

Table 72: Findings Section in an ARO Report (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2020-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4459-21128](#C_4459-21128) |  |
| @root | 1..1 | SHALL |  | [4459-21129](#C_4459-21129) | 2.16.840.1.113883.10.20.5.5.32 |
| @extension | 1..1 | SHALL |  | [4459-30475](#C_4459-30475) | 2020-04-01 |
| code | 1..1 | SHALL |  | [4459-21132](#C_4459-21132) |  |
| @code | 1..1 | SHALL |  | [4459-21133](#C_4459-21133) | 18769-0 |
| @codeSystem | 1..1 | SHALL |  | [4459-30601](#C_4459-30601) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4459-21136](#C_4459-21136) |  |
| procedure | 1..1 | SHALL |  | [4459-30473](#C_4459-30473) | [Specimen Collection Procedure (ARO) (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2020-04-01](#E_Specimen_Collection_Procedure_ARO_V4) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4459-21128) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.32" (CONF:4459-21129).
   2. SHALL contain exactly one [1..1] @extension="2020-04-01" (CONF:4459-30475).
3. SHALL contain exactly one [1..1] code (CONF:4459-21132).
   1. This code SHALL contain exactly one [1..1] @code="18769-0" Findings Section (CONF:4459-21133).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4459-30601).
4. SHALL contain exactly one [1..1] entry (CONF:4459-21136).
   1. This entry SHALL contain exactly one [1..1] [Specimen Collection Procedure (ARO) (V4)](#E_Specimen_Collection_Procedure_ARO_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2020-04-01) (CONF:4459-30473).

Figure 7: Findings Section in an ARO Report (V4) Example

<section>

<!-- [HAI R1] HAI Section Generic Constraints -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3N1] Findings Section in an ARO Report (V4) -->

<templateId root="2.16.840.1.113883.10.20.5.5.32" extension="2020-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="18769-0"

displayName="Findings section" />

<title>Findings</title>

<text>

...

</text>

<entry typeCode="DRIV">

<procedure classCode="PROC" moodCode="EVN">

<!-- [HAI R3N1] Specimen Collection Procedure (ARO) (V4) -->

<templateId root="2.16.840.1.113883.10.20.5.6.188" extension="2020-04-01" />

...

</procedure>

</entry>

</section>

Findings Section in an Infection-Type Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.45 (closed)]

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Table 73: Findings Section in an Infection-Type Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Evidence of Infection (Dialysis) Report (V6)](#D_HAI_Evidence_of_Infection_Dialysis_V6) (optional)  [Late Onset Sepsis/Meningitis Event (LOS) Report (V2)](#D_Late_Onset_SepsisMeningitis_Event_V2) (optional)  [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) (required)  [HAI Surgical Site Infection Report (SSI) (V3)](#D_HAI_Surgical_Site_Infection_Report_V3) (required)  [HAI Urinary Tract Infection Numerator Report (UTI) (V2)](#D_HAI_Urinary_Tract_Infection_Num_V2) (required)  [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) (required) | [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) (optional)  [MDRO/CDI Observation](#E_MDROCDI_Observation) (optional)  [Findings Organizer](#E_Findings_Organizer) (optional) |

The Findings Section in an Infection-Type Report records whether infection organisms were identified and, if so, records details about them.

Table 74: Findings Section in an Infection-Type Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.45) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22371](#C_86-22371) |  |
| @root | 1..1 | SHALL |  | [86-22372](#C_86-22372) | 2.16.840.1.113883.10.20.5.5.45 |
| code | 1..1 | SHALL |  | [86-22373](#C_86-22373) |  |
| @code | 1..1 | SHALL |  | [86-22374](#C_86-22374) | 18769-0 |
| @codeSystem | 1..1 | SHALL |  | [86-28357](#C_86-28357) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 0..3 | MAY |  | [86-23048](#C_86-23048) |  |
| organizer | 1..1 | SHALL |  | [86-23049](#C_86-23049) | [Findings Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182](#E_Findings_Organizer) |
| entry | 0..1 | MAY |  | [86-23051](#C_86-23051) |  |
| observation | 1..1 | SHALL |  | [86-23052](#C_86-23052) | [Pathogen Identified Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145](#E_Pathogen_Identified_Observation) |
| entry | 0..1 | MAY |  | [86-23054](#C_86-23054) |  |
| observation | 1..1 | SHALL |  | [86-23055](#C_86-23055) | [MDRO/CDI Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.142](#E_MDROCDI_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22371) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.45" (CONF:86-22372).
3. SHALL contain exactly one [1..1] code (CONF:86-22373).
   1. This code SHALL contain exactly one [1..1] @code="18769-0" Findings Section (CONF:86-22374).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28357).
4. MAY contain [0..3] entry (CONF:86-23048) such that it
   1. SHALL contain exactly one [1..1] [Findings Organizer](#E_Findings_Organizer) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182) (CONF:86-23049).
   2. If pathogens were identified, the Findings Section SHALL contain at least one and no more than three entry elements containing a Findings Organizer reporting pathogens identified (CONF:86-23050).
5. MAY contain zero or one [0..1] entry (CONF:86-23051) such that it
   1. SHALL contain exactly one [1..1] [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145) (CONF:86-23052).
   2. If no pathogens were identified, the Findings Section SHALL contain a single entry element containing a Pathogen Identified Observation reporting that no pathogens were identified (CONF:86-23053).
6. MAY contain zero or one [0..1] entry (CONF:86-23054) such that it
   1. SHALL contain exactly one [1..1] [MDRO/CDI Observation](#E_MDROCDI_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.142) (CONF:86-23055).
   2. If pathogens were identified, and the report is a UTI, SSI, VAE, or BSI Report, an entry element SHALL be present, containing an MDRO/CDI Observation (CONF:86-23056).

Figure 8: Findings Section in an Infection-Type Report Example - Pathogen(s) Identified

<section>

<!-- HAI Generic section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Findings section in an infection-type report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.45"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="18769-0"

displayName="Findings Section"/>

<title>Findings</title>

...

<entry>

<organizer>

<!-- Findings Organizer -->

<templateId root="2.16.840.1.113883.10.20.5.6.182"/>

...

</organizer>

</entry>

<entry typeCode="DRIV">

<observation>

<!-- MDRO/CDI Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.142"/>

...

</observation>

</entry>

</section>

Figure 9: Findings Section in an Infection-Type Report Example - No pathogens identified

<section>

<!-- HAI Generic section template -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- HAI Findings section in an infection-type report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.45" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="18769-0"

displayName="Findings" />

<title>Findings</title>

<text>...</text>

<!-- No pathogens identified -->

<entry>

<!-- Pathogen Identified Observation -->

<observation classCode="OBS" moodCode="EVN">

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- [HAI R1] Pathogen Identified Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.145" />

<id nullFlavor="NA" />

<code code="41852-5"

displayName="Microorganism identified"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime nullFlavor="NA" />

<value xsi:type="CD" code="3119-7"

displayName="No pathogen identified"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="cdcNHSN" />

</observation>

</entry>

</section>

Findings Section in an OPC SSI Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01 (closed)]

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Table 75: Findings Section in an OPC SSI Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Outpatient Procedure Surgical Site Infection (SSI) Event Report](#D_Outpatient_Procedure_Surgical_Site_In) (required) | [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) (optional)  [Findings Organizer](#E_Findings_Organizer) (optional) |

The Findings Section in an OPC SSI Report records whether infection organisms were identified and, if so, records details about them.

Table 76: Findings Section in an OPC SSI Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30776](#C_4395-30776) |  |
| @root | 1..1 | SHALL |  | [4395-30781](#C_4395-30781) | 2.16.840.1.113883.10.20.5.5.70 |
| @extension | 1..1 | SHALL |  | [4395-30785](#C_4395-30785) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30777](#C_4395-30777) |  |
| @code | 1..1 | SHALL |  | [4395-30782](#C_4395-30782) | 18769-0 |
| @codeSystem | 1..1 | SHALL |  | [4395-30783](#C_4395-30783) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 0..3 | MAY |  | [4395-30774](#C_4395-30774) |  |
| organizer | 1..1 | SHALL |  | [4395-30775](#C_4395-30775) | [Findings Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182](#E_Findings_Organizer) |
| entry | 0..1 | MAY |  | [4395-30778](#C_4395-30778) |  |
| observation | 1..1 | SHALL |  | [4395-30779](#C_4395-30779) | [Pathogen Identified Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145](#E_Pathogen_Identified_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30776) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.70" (CONF:4395-30781).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30785).
3. SHALL contain exactly one [1..1] code (CONF:4395-30777).
   1. This code SHALL contain exactly one [1..1] @code="18769-0" Findings Section (CONF:4395-30782).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30783).

This section must contain either a Findings Organizer detailing identified pathogens or a Pathogen Identified Observation reporting that no pathogens were identified. Both a Findings Organizer and a Pathogen Identified Observation cannot be present at the same time.

1. MAY contain [0..3] entry (CONF:4395-30774) such that it
   1. SHALL contain exactly one [1..1] [Findings Organizer](#E_Findings_Organizer) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182) (CONF:4395-30775).
   2. If pathogens were identified, the Findings Section SHALL contain at least one and no more than three entry elements containing a Findings Organizer reporting pathogens identified (CONF:4395-30780).
2. MAY contain zero or one [0..1] entry (CONF:4395-30778) such that it
   1. SHALL contain exactly one [1..1] [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145) (CONF:4395-30779).
   2. If no pathogens were identified, the Findings Section SHALL contain a single entry element containing a Pathogen Identified Observation reporting that no pathogens were identified (CONF:4395-30784).

Figure 10: Findings Section in an OPC SSI Report Example - Pathogen(s) Identified

<section>

<!-- HAI Generic section template -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D4] HAI Findings Section in an OPC SSI report -->

<templateId root="2.16.840.1.113883.10.20.5.5.70" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="18769-0"

displayName="Findings" />

<title>Findings</title>

<text>...</text>

<entry typeCode="DRIV">

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.182" />

...

</organizer>

<!-- end of Findings organizer for the first organism -->

</entry>

<entry typeCode="DRIV">

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.182" />

...

</organizer>

<!-- end of Findings organizer for the second organism -->

</entry>

<entry typeCode="DRIV">

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.182" />

...

</organizer>

<!-- end of Findings organizer for the third organism -->

</entry>

</section>

Figure 11: Findings Section in an OPC SSI Report Example - No Pathogens Identified

<section>

<!-- HAI Generic section template -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D4] HAI Findings Section in an OPC SSI report -->

<templateId root="2.16.840.1.113883.10.20.5.5.70" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="18769-0"

displayName="Findings" />

<title>Findings</title>

<text>...</text>

<entry>

<!-- Pathogen Identified Observation -->

<observation classCode="OBS" moodCode="EVN">

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- [HAI R1] Pathogen Identified Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.145" />

<id nullFlavor="NA" />

<code code="41852-5"

displayName="Microorganism identified"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime nullFlavor="NA" />

<value xsi:type="CD" code="3119-7"

displayName="No pathogen identified"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="cdcNHSN" />

</observation>

</entry>

</section>

Infection Details in Late Onset Sepsis Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01 (open)]

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Table 77: Infection Details in Late Onset Sepsis Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Late Onset Sepsis/Meningitis Event (LOS) Report (V2)](#D_Late_Onset_SepsisMeningitis_Event_V2) (required) | [Death Observation](#E_Death_Observation) (required)  [Infection-Type Observation](#E_InfectionType_Observation) (required)  [Inborn/Outborn Observation](#E_InbornOutborn_Observation) (required) |

This template represents the event details of a late onset sepsis report.

Table 78: Infection Details in Late Onset Sepsis Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-30742](#C_3357-30742) |  |
| @root | 1..1 | SHALL |  | [3357-30743](#C_3357-30743) | 2.16.840.1.113883.10.20.5.5.64 |
| @extension | 1..1 | SHALL |  | [3357-30744](#C_3357-30744) | 2018-04-01 |
| code | 1..1 | SHALL |  | [3357-30784](#C_3357-30784) |  |
| @code | 1..1 | SHALL |  | [3357-30785](#C_3357-30785) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [3357-30786](#C_3357-30786) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [3357-30816](#C_3357-30816) |  |
| observation | 1..1 | SHALL |  | [3357-30817](#C_3357-30817) | [Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139](#E_InfectionType_Observation) |
| entry | 1..1 | SHALL |  | [3357-30818](#C_3357-30818) |  |
| observation | 1..1 | SHALL |  | [3357-30819](#C_3357-30819) | [Inborn/Outborn Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01](#E_InbornOutborn_Observation) |
| entry | 1..1 | SHALL |  | [3357-30787](#C_3357-30787) |  |
| observation | 1..1 | SHALL |  | [3357-30788](#C_3357-30788) | [Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120](#E_Death_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-30742) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.64" (CONF:3357-30743).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30744).
3. SHALL contain exactly one [1..1] code (CONF:3357-30784).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:3357-30785).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3357-30786).
4. SHALL contain exactly one [1..1] entry (CONF:3357-30816) such that it
   1. SHALL contain exactly one [1..1] [Infection-Type Observation](#E_InfectionType_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:3357-30817).
5. SHALL contain exactly one [1..1] entry (CONF:3357-30818) such that it
   1. SHALL contain exactly one [1..1] [Inborn/Outborn Observation](#E_InbornOutborn_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01) (CONF:3357-30819).
6. SHALL contain exactly one [1..1] entry (CONF:3357-30787) such that it
   1. SHALL contain exactly one [1..1] [Death Observation](#E_Death_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:3357-30788).

Figure 12: Infection Details in Late Onset Sepsis Report Example

<section>

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D3] Infection Details in Late Onset Sepsis Report -->

<templateId root="2.16.840.1.113883.10.20.5.5.64" extension="2018-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details" />

<title>Details Section</title>

<text>...</text>

<entry typeCode="DRIV">

<!-- Infection-Type Observation -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- [HAI R2N1] Infection-Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.139"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<!-- Inborn/Outborn Observation -->

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- [HAI R3D3] Inborn/Outborn Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.257" extension="2018-04-01"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<!-- Death Observation -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Deceased Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.79" />

<!-- Death Observation in an Infection-type -->

<templateId root="2.16.840.1.113883.10.20.5.6.120" />

...

</observation>

</entry>

</section>

Infection Details Section in a BSI Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.38 (closed)]

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Table 79: Infection Details Section in a BSI Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) (required) | [Death Observation](#E_Death_Observation) (optional)  [Post-Procedure Observation](#E_PostProcedure_Observation) (optional)  [Infection-Type Observation](#E_InfectionType_Observation) (required) |

This section records the infection type, with details, as well as whether the reported infection occurred during a post-procedure period. If the patient died, NHSN protocol requires that the death be recorded.

Table 80: Infection Details Section in a BSI Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.38) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22310](#C_86-22310) |  |
| @root | 1..1 | SHALL |  | [86-22311](#C_86-22311) | 2.16.840.1.113883.10.20.5.5.38 |
| code | 1..1 | SHALL |  | [86-22312](#C_86-22312) |  |
| @code | 1..1 | SHALL |  | [86-22313](#C_86-22313) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [86-28358](#C_86-28358) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [86-22314](#C_86-22314) |  |
| observation | 1..1 | SHALL |  | [86-22315](#C_86-22315) | [Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139](#E_InfectionType_Observation) |
| entry | 0..1 | MAY |  | [86-22316](#C_86-22316) |  |
| observation | 1..1 | SHALL |  | [86-22317](#C_86-22317) | [Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120](#E_Death_Observation) |
| entry | 0..1 | MAY |  | [86-22318](#C_86-22318) |  |
| observation | 1..1 | SHALL |  | [86-22319](#C_86-22319) | [Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150](#E_PostProcedure_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22310) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.38" (CONF:86-22311).
3. SHALL contain exactly one [1..1] code (CONF:86-22312).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:86-22313).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28358).
4. SHALL contain exactly one [1..1] entry (CONF:86-22314) such that it
   1. SHALL contain exactly one [1..1] [Infection-Type Observation](#E_InfectionType_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:86-22315).
5. MAY contain zero or one [0..1] entry (CONF:86-22316) such that it
   1. SHALL contain exactly one [1..1] [Death Observation](#E_Death_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:86-22317).
6. MAY contain zero or one [0..1] entry (CONF:86-22318) such that it
   1. SHALL contain exactly one [1..1] [Post-Procedure Observation](#E_PostProcedure_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150) (CONF:86-22319).

Figure 13: Infection Details Section in a BSI Report Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Infection Details Section in a BSI report template-->

<templateId root="2.16.840.1.113883.10.20.5.5.38"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details Section"/>

<title> Details </title>

...

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Infection-Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.139"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Deceased Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.79"/>

<!-- Death Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.120"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Post-Procedure Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.150"/>

...

</observation>

</entry>

</section>

Infection Details Section in a UTI Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.40 (closed)]

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Table 81: Infection Details Section in a UTI Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Urinary Tract Infection Numerator Report (UTI) (V2)](#D_HAI_Urinary_Tract_Infection_Num_V2) (required) | [Death Observation](#E_Death_Observation) (optional)  [Post-Procedure Observation](#E_PostProcedure_Observation) (optional)  [Infection-Type Observation](#E_InfectionType_Observation) (required) |

This section records the infection type, with details. If the patient died, NHSN protocol requires that the death be recorded.

Table 82: Infection Details Section in a UTI Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.40) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22328](#C_86-22328) |  |
| @root | 1..1 | SHALL |  | [86-22329](#C_86-22329) | 2.16.840.1.113883.10.20.5.5.40 |
| code | 1..1 | SHALL |  | [86-22330](#C_86-22330) |  |
| @code | 1..1 | SHALL |  | [86-22331](#C_86-22331) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [86-28359](#C_86-28359) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [86-22332](#C_86-22332) |  |
| observation | 1..1 | SHALL |  | [86-22333](#C_86-22333) | [Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139](#E_InfectionType_Observation) |
| entry | 0..1 | MAY |  | [86-22334](#C_86-22334) |  |
| observation | 1..1 | SHALL |  | [86-22335](#C_86-22335) | [Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150](#E_PostProcedure_Observation) |
| entry | 0..1 | MAY |  | [86-22336](#C_86-22336) |  |
| observation | 1..1 | SHALL |  | [86-22337](#C_86-22337) | [Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120](#E_Death_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22328) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.40" (CONF:86-22329).
3. SHALL contain exactly one [1..1] code (CONF:86-22330).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:86-22331).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28359).
4. SHALL contain exactly one [1..1] entry (CONF:86-22332) such that it
   1. SHALL contain exactly one [1..1] [Infection-Type Observation](#E_InfectionType_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:86-22333).
5. MAY contain zero or one [0..1] entry (CONF:86-22334) such that it
   1. SHALL contain exactly one [1..1] [Post-Procedure Observation](#E_PostProcedure_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150) (CONF:86-22335).
6. MAY contain zero or one [0..1] entry (CONF:86-22336) such that it
   1. SHALL contain exactly one [1..1] [Death Observation](#E_Death_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:86-22337).

Figure 14: Infection Details Section in a UTI Report Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Infection Details Section in a UTI report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.40"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details Section"/>

<title>Details</title>

...

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Infection-Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.139"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Deceased Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.79"/>

<!-- Death Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.120"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Post-Procedure Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.150"/>

...

</observation>

</entry>

</section>

Infection Details Section in a VAE Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01 (closed)]

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Table 83: Infection Details Section in a VAE Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) (required) | [Death Observation](#E_Death_Observation) (required)  [Post-Procedure Observation](#E_PostProcedure_Observation) (optional)  [Infection-Type Observation](#E_InfectionType_Observation) (required) |

This section records the infection type, with details, as well as whether the reported infection occurred during a post-procedure period. If the patient died, NHSN protocol requires that the death be recorded.

Table 84: Infection Details Section in a VAE Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3311-125](#C_3311-125) |  |
| @root | 1..1 | SHALL |  | [3311-130](#C_3311-130) | 2.16.840.1.113883.10.20.5.5.59 |
| @extension | 1..1 | SHALL |  | [3311-135](#C_3311-135) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-126](#C_3311-126) |  |
| @code | 1..1 | SHALL |  | [3311-131](#C_3311-131) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [3311-132](#C_3311-132) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [3311-124](#C_3311-124) |  |
| observation | 1..1 | SHALL |  | [3311-129](#C_3311-129) | [Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139](#E_InfectionType_Observation) |
| entry | 1..1 | SHALL |  | [3311-127](#C_3311-127) |  |
| observation | 1..1 | SHALL |  | [3311-133](#C_3311-133) | [Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120](#E_Death_Observation) |
| entry | 0..1 | MAY |  | [3311-128](#C_3311-128) |  |
| observation | 1..1 | SHALL |  | [3311-134](#C_3311-134) | [Post-Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150](#E_PostProcedure_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-125) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.59" (CONF:3311-130).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-135).
3. SHALL contain exactly one [1..1] code (CONF:3311-126).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:3311-131).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-132).
4. SHALL contain exactly one [1..1] entry (CONF:3311-124) such that it
   1. SHALL contain exactly one [1..1] [Infection-Type Observation](#E_InfectionType_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:3311-129).
5. SHALL contain exactly one [1..1] entry (CONF:3311-127) such that it
   1. SHALL contain exactly one [1..1] [Death Observation](#E_Death_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:3311-133).
6. MAY contain zero or one [0..1] entry (CONF:3311-128) such that it
   1. SHALL contain exactly one [1..1] [Post-Procedure Observation](#E_PostProcedure_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150) (CONF:3311-134).

Figure 15: Infection Details Section in a VAE Report Example

<section>

<!-- HAI Section Generic Constraints -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D2] Infection Details Section in a VAE Report -->

<templateId root="2.16.840.1.113883.10.20.5.5.59" extension="2017-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details" />

<title>Details</title>

<text/>

<entry typeCode="DRIV">

<!-- Infection Type Observation -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI] Infection Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.139" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<!-- Death Observation -->

<!-- Not negated: this patient died -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Deceased Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.79" />

<!-- Death Observation in an Infection-type -->

<templateId root="2.16.840.1.113883.10.20.5.6.120" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<!-- Post-procedure Observation -->

<!-- negationInd = false: the infection was post-procedure -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI] Post-procedure Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.150" />

...

</observation>

</entry>

</section>

Infection Details Section in an OPC SSI Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01 (closed)]

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Table 85: Infection Details Section in an OPC SSI Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Outpatient Procedure Surgical Site Infection (SSI) Event Report](#D_Outpatient_Procedure_Surgical_Site_In) (required) | [Infection-Type Observation in an OPC SSI Event](#E_InfectionType_Observation_in_an_OPC_S) (required)  [Procedure Details in an OPC SSI Event](#E_Procedure_Details_in_an_OPC_SSI_Event) (required) |

This section records the infection type, with details. It records SSI level, all identification criteria used to identify this SSI event, and identified pathogen(s).

Table 86: Infection Details Section in an OPC SSI Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30722](#C_4395-30722) |  |
| @root | 1..1 | SHALL |  | [4395-30734](#C_4395-30734) | 2.16.840.1.113883.10.20.5.5.69 |
| @extension | 1..1 | SHALL |  | [4395-30737](#C_4395-30737) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30723](#C_4395-30723) |  |
| @code | 1..1 | SHALL |  | [4395-30735](#C_4395-30735) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [4395-30736](#C_4395-30736) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4395-30724](#C_4395-30724) |  |
| observation | 1..1 | SHALL |  | [4395-30725](#C_4395-30725) | [Infection-Type Observation in an OPC SSI Event (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01](#E_InfectionType_Observation_in_an_OPC_S) |
| entry | 1..1 | SHALL |  | [4395-30732](#C_4395-30732) |  |
| procedure | 1..1 | SHALL |  | [4395-30733](#C_4395-30733) | [Procedure Details in an OPC SSI Event (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01](#E_Procedure_Details_in_an_OPC_SSI_Event) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30722) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.69" (CONF:4395-30734).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30737).
3. SHALL contain exactly one [1..1] code (CONF:4395-30723).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:4395-30735).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30736).
4. SHALL contain exactly one [1..1] entry (CONF:4395-30724) such that it
   1. SHALL contain exactly one [1..1] [Infection-Type Observation in an OPC SSI Event](#E_InfectionType_Observation_in_an_OPC_S) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01) (CONF:4395-30725).
5. SHALL contain exactly one [1..1] entry (CONF:4395-30732) such that it
   1. SHALL contain exactly one [1..1] [Procedure Details in an OPC SSI Event](#E_Procedure_Details_in_an_OPC_SSI_Event) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01) (CONF:4395-30733).

Figure 16: Infection Details Section in an OPC SSI Report Example

<section>

<!-- HAI Generic Section template -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D4] HAI Infection Details Section in an Outpatient SSI Report -->

<templateId root="2.16.840.1.113883.10.20.5.5.69" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51899-3" displayName="Event Details" />

<title>Event Details</title>

<text>...</text>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R2.1] Infection Type Observation in an OPC SSI Event -->

<templateId root="2.16.840.1.113883.10.20.5.6.263" extension="2019-04-01" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<!-- Procedure Details Clinical Statement in an Infection-type Report -->

<procedure classCode="PROC" moodCode="EVN">

<!-- [C-CDA R1.1] Procedure Activity Procedure -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- [HAI R3D4] Procedure Details in an OPC SSI Event -->

<templateId root="2.16.840.1.113883.10.20.5.6.265" extension="2019-04-01" />

...

</procedure>

</entry>

</section>

Infection Details Section in an SSI Report (V2)

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.39.2 (closed)]

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Table 87: Infection Details Section in an SSI Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Surgical Site Infection Report (SSI) (V3)](#D_HAI_Surgical_Site_Infection_Report_V3) (required) | [Death Observation](#E_Death_Observation) (optional)  [Infection-Type Observation](#E_InfectionType_Observation) (required)  [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) (required)  [Infection Present at the Time of Surgery Observation](#E_Infection_Present_at_the_Time_of_Surg) (required)  [SSI Detected Using Toolkit Observation](#E_SSI_Detected_Using_Toolkit_Observation) (required) |

This section records the infection type, with details. It records whether the infection was present at the time of surgery and whether the SSI was identified through the use of discharge diagnosis or procedure codes. If the patient died, NHSN protocol requires that the death be recorded.

Table 88: Infection Details Section in an SSI Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.39.2) | | | | | |
| templateId | 1..1 | SHALL |  | [1101-22320](#C_1101-22320) |  |
| @root | 1..1 | SHALL |  | [1101-30273](#C_1101-30273) | 2.16.840.1.113883.10.20.5.5.39.2 |
| code | 1..1 | SHALL |  | [1101-22322](#C_1101-22322) |  |
| @code | 1..1 | SHALL |  | [1101-22323](#C_1101-22323) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [1101-30313](#C_1101-30313) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [1101-22324](#C_1101-22324) |  |
| observation | 1..1 | SHALL |  | [1101-22325](#C_1101-22325) | [Infection-Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139](#E_InfectionType_Observation) |
| entry | 0..1 | MAY |  | [1101-22326](#C_1101-22326) |  |
| observation | 1..1 | SHALL |  | [1101-22327](#C_1101-22327) | [Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120](#E_Death_Observation) |
| entry | 1..1 | SHALL |  | [1101-30274](#C_1101-30274) |  |
| observation | 1..1 | SHALL |  | [1101-30275](#C_1101-30275) | [Infection Present at the Time of Surgery Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.205](#E_Infection_Present_at_the_Time_of_Surg) |
| entry | 1..1 | SHALL |  | [1101-30294](#C_1101-30294) |  |
| observation | 1..1 | SHALL |  | [1101-30295](#C_1101-30295) | [SSI Detected Using Toolkit Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.206](#E_SSI_Detected_Using_Toolkit_Observation) |
| entry | 1..1 | SHALL |  | [1101-30296](#C_1101-30296) |  |
| procedure | 1..1 | SHALL |  | [1101-30297](#C_1101-30297) | [Procedure Details Clinical Statement in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154](#E_Procedure_Details_Clinical_Stmt_IT) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1101-22320) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.39.2" (CONF:1101-30273).
3. SHALL contain exactly one [1..1] code (CONF:1101-22322).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:1101-22323).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1101-30313).
4. SHALL contain exactly one [1..1] entry (CONF:1101-22324) such that it
   1. SHALL contain exactly one [1..1] [Infection-Type Observation](#E_InfectionType_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) (CONF:1101-22325).
5. MAY contain zero or one [0..1] entry (CONF:1101-22326) such that it
   1. SHALL contain exactly one [1..1] [Death Observation](#E_Death_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) (CONF:1101-22327).
6. SHALL contain exactly one [1..1] entry (CONF:1101-30274) such that it
   1. SHALL contain exactly one [1..1] [Infection Present at the Time of Surgery Observation](#E_Infection_Present_at_the_Time_of_Surg) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.205) (CONF:1101-30275).
7. SHALL contain exactly one [1..1] entry (CONF:1101-30294) such that it
   1. SHALL contain exactly one [1..1] [SSI Detected Using Toolkit Observation](#E_SSI_Detected_Using_Toolkit_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.206) (CONF:1101-30295).
8. SHALL contain exactly one [1..1] entry (CONF:1101-30296) such that it
   1. SHALL contain exactly one [1..1] [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154) (CONF:1101-30297).

Figure 17: Infection Details Section in an SSI Report Example

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Infection Details Section in an SSI Report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.39.2"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details Section"/>

<title>Details</title>

...

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Infection-Type Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.139"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Deceased Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.79"/>

<!-- Death Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.120"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- Infection Present at the Time of Surgery Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.205"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- SSI Detected Using Toolkit Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.206"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure template -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- Procedure Details Clinical Statement in an Infection-Type Report template -->

<templateId root="2.16.840.1.113883.10.20.5.6.154"/>

...

</procedure>

</entry>

</section>

Infection Risk Factors Section in a BSI Report (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

Table 89: Infection Risk Factors Section in a BSI Report (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) (required) | [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) (optional)  [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) (required)  [Hemodialysis Catheter Present](#E_Hemodialysis_Catheter_Present) (required)  [Extracorporeal Life Support Present](#E_Extracorporeal_Life_Support_Present) (required)  [Ventricular Assist Device (VAD) Present](#E_Ventricular_Assist_Device_VAD_Present) (required)  [Known or Suspected Munchhausen's By Proxy Observation](#E_Known_or_Suspected_Munchhausens_By_Pr) (required)  [Observed or Suspected Patient Injection into Vascular Line Observation](#E_Observed_or_Suspected_Patient_Injecti) (required)  [Epidermolysis Bullosa Observation](#E_Epidermolysis_Bullosa_Observation) (required)  [Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation](#E_Pus_Present_in_Specimen_Site_and_Matc) (required) |

In a Bloodstream Infection (BSI) Report, the Infection Risk Factors Section contains Infection Risk Factors Observations and optional Infection Risk Factors Measurement Observations depending on the location type, specified by ClinicalDocument/componentOf/encompassingEncounter/location/healthcareFacility/code.

Some information requirements in this template depend on the location reporting the infection: ICU/Other (ICU or any other location except for Specialty Care Areas), SCA (Specialty Care Areas), or NICU (Neonatal Intensive Care Unit).

Table 90: Infection Risk Factors Section in a BSI Report (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-22266](#C_3357-22266) |  |
| @root | 1..1 | SHALL |  | [3357-22267](#C_3357-22267) | 2.16.840.1.113883.10.20.5.5.33 |
| @extension | 1..1 | SHALL |  | [3357-28433](#C_3357-28433) | 2018-04-01 |
| code | 1..1 | SHALL |  | [3357-22268](#C_3357-22268) |  |
| @code | 1..1 | SHALL |  | [3357-22269](#C_3357-22269) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [3357-28360](#C_3357-28360) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..2 | SHALL |  | [3357-23203](#C_3357-23203) |  |
| observation | 1..1 | SHALL |  | [3357-23204](#C_3357-23204) | [Infection Risk Factors Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138](#E_Infection_Risk_Factors_Observation) |
| entry | 0..1 | MAY |  | [3357-23208](#C_3357-23208) |  |
| observation | 1..1 | SHALL |  | [3357-23209](#C_3357-23209) | [Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137](#E_Infection_Risk_Factors_Measurement_Ob) |
| entry | 1..1 | SHALL |  | [3357-28361](#C_3357-28361) |  |
| procedure | 1..1 | SHALL |  | [3357-28464](#C_3357-28464) | [Hemodialysis Catheter Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01](#E_Hemodialysis_Catheter_Present) |
| entry | 1..1 | SHALL |  | [3357-28362](#C_3357-28362) |  |
| procedure | 1..1 | SHALL |  | [3357-28465](#C_3357-28465) | [Ventricular Assist Device (VAD) Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01](#E_Ventricular_Assist_Device_VAD_Present) |
| entry | 1..1 | SHALL |  | [3357-28363](#C_3357-28363) |  |
| procedure | 1..1 | SHALL |  | [3357-28466](#C_3357-28466) | [Extracorporeal Life Support Present (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01](#E_Extracorporeal_Life_Support_Present) |
| entry | 1..1 | SHALL |  | [3357-30668](#C_3357-30668) |  |
| observation | 1..1 | SHALL |  | [3357-30669](#C_3357-30669) | [Known or Suspected Munchhausen's By Proxy Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01](#E_Known_or_Suspected_Munchhausens_By_Pr) |
| entry | 1..1 | SHALL |  | [3357-30670](#C_3357-30670) |  |
| observation | 1..1 | SHALL |  | [3357-30671](#C_3357-30671) | [Epidermolysis Bullosa Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01](#E_Epidermolysis_Bullosa_Observation) |
| entry | 1..1 | SHALL |  | [3357-30672](#C_3357-30672) |  |
| observation | 1..1 | SHALL |  | [3357-30673](#C_3357-30673) | [Observed or Suspected Patient Injection into Vascular Line Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01](#E_Observed_or_Suspected_Patient_Injecti) |
| entry | 1..1 | SHALL |  | [3357-30693](#C_3357-30693) |  |
| observation | 1..1 | SHALL |  | [3357-30694](#C_3357-30694) | [Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01](#E_Pus_Present_in_Specimen_Site_and_Matc) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-22266) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.33" (CONF:3357-22267).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-28433).
3. SHALL contain exactly one [1..1] code (CONF:3357-22268).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:3357-22269).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3357-28360).
4. SHALL contain at least one and not more than 2 entry (CONF:3357-23203) such that it
   1. SHALL contain exactly one [1..1] [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138) (CONF:3357-23204).
   2. If the location type represents an ICU/Other location (ICU or any other location except for SCA or NICU), this entry element SHALL be present containing an Infection Risk Factors Observation representing whether a central line was present (CONF:3357-23205).
   3. If the location type represents an SCA location, an entry element SHALL be present containing an Infection Risk Factors Observation representing whether a permanent central line was present, and an entry element containing an Infection Risk Factors Observation representing whether a Temporary Central Line was present (CONF:3357-23206).
   4. If the location type represents an NICU location, an entry element SHALL be present containing an Infection Risk Factors Observation representing whether a central line was present (CONF:3357-23207).
5. MAY contain zero or one [0..1] entry (CONF:3357-23208) such that it
   1. SHALL contain exactly one [1..1] [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137) (CONF:3357-23209).
   2. If the location type represents an NICU location, an entry element SHALL be present containing an Infection Risk Factors Measurement Observation representing the birth weight (CONF:3357-23210).
6. SHALL contain exactly one [1..1] entry (CONF:3357-28361) such that it
   1. SHALL contain exactly one [1..1] [Hemodialysis Catheter Present](#E_Hemodialysis_Catheter_Present) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01) (CONF:3357-28464).
7. SHALL contain exactly one [1..1] entry (CONF:3357-28362) such that it
   1. SHALL contain exactly one [1..1] [Ventricular Assist Device (VAD) Present](#E_Ventricular_Assist_Device_VAD_Present) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01) (CONF:3357-28465).
8. SHALL contain exactly one [1..1] entry (CONF:3357-28363) such that it
   1. SHALL contain exactly one [1..1] [Extracorporeal Life Support Present](#E_Extracorporeal_Life_Support_Present) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01) (CONF:3357-28466).
9. SHALL contain exactly one [1..1] entry (CONF:3357-30668) such that it
   1. SHALL contain exactly one [1..1] [Known or Suspected Munchhausen's By Proxy Observation](#E_Known_or_Suspected_Munchhausens_By_Pr) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01) (CONF:3357-30669).
10. SHALL contain exactly one [1..1] entry (CONF:3357-30670) such that it
    1. SHALL contain exactly one [1..1] [Epidermolysis Bullosa Observation](#E_Epidermolysis_Bullosa_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01) (CONF:3357-30671).
11. SHALL contain exactly one [1..1] entry (CONF:3357-30672) such that it
    1. SHALL contain exactly one [1..1] [Observed or Suspected Patient Injection into Vascular Line Observation](#E_Observed_or_Suspected_Patient_Injecti) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01) (CONF:3357-30673).
12. SHALL contain exactly one [1..1] entry (CONF:3357-30693) such that it
    1. SHALL contain exactly one [1..1] [Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation](#E_Pus_Present_in_Specimen_Site_and_Matc) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01) (CONF:3357-30694).

Figure 18: Infection Risk Factors Section in BSI Report (V3) Example

<section>

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<templateId root="2.16.840.1.113883.10.20.5.5.33" extension="2018-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" 2.16.840.1.113883.10.20.5.5.33

code="51898-5"

displayName="Risk Factors" />

<title>Risk Factors</title>

<text>...</text>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI] Infection Risk Factors Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.138" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Vital Sign Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.27" />

<!-- [HAI] Infection Risk Factors Measurement Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.137" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- [HAI R3D2] Hemodialysis Catheter Present-->

<templateId root="2.16.840.1.113883.10.20.5.6.245" extension="2017-04-01" />

...

</procedure>

</entry>

<entry typeCode="DRIV">

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- [HAI R3D2] Extracorporeal Life Support Present -->

<templateId root="2.16.840.1.113883.10.20.5.6.246" extension="2017-04-01" />

<code nullFlavor="UNK" />

...

</procedure>

</entry>

<entry typeCode="DRIV">

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- [HAI R3D2] Ventricular Assist Device (VAD) Present -->

<templateId root="2.16.840.1.113883.10.20.5.6.247" extension="2017-04-01" />

...

</procedure>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R3D3] Known or Suspected Munchhausen's By Proxy Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.250" extension="2018-04-01" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R3D3] Observed or Suspected Patient Injection into Vascular Line Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.251" extension="2018-04-01" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R3D3] Epidermolysis Bullosa Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.252" extension="2018-04-01" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R3D3] Pus Present in Specimen Site and Matching Organism in Blood and Specimen -->

<templateId root="2.16.840.1.113883.10.20.5.6.253" extension="2018-04-01" />

...

</observation>

</entry>

</section>

Infection Risk Factors Section in a CLIP Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01 (closed)]

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Table 91: Infection Risk Factors Section in a CLIP Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Central-Line Insertion Practice Numerator Report (V2)](#D_HAI_CentralLine_Insertion_Practice_V2) (required) | [Central-Line Insertion Practice Clinical Statement (V2)](#E_CentralLine_Insertion_Practice_Clinic) (required)  [Antimicrobial Coated Catheter Used Observation](#E_Antimicrobial_Coated_Catheter_Used_Ob) (optional) |

In a CLIP Report, the Infection Risk Factors Section contains a single Central-Line Insertion Practice Clinical Statement, which contains a set of sequenced events. This section also optionally contains an Antimicrobial Coated Catheter Used Observation.

Table 92: Infection Risk Factors Section in a CLIP Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1129-22277](#C_1129-22277) |  |
| @root | 1..1 | SHALL |  | [1129-28199](#C_1129-28199) | 2.16.840.1.113883.10.20.5.5.34 |
| @extension | 1..1 | SHALL |  | [1129-30288](#C_1129-30288) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-22273](#C_1129-22273) |  |
| @code | 1..1 | SHALL |  | [1129-22274](#C_1129-22274) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [1129-28198](#C_1129-28198) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [1129-22275](#C_1129-22275) |  |
| act | 1..1 | SHALL |  | [1129-30430](#C_1129-30430) | [Central-Line Insertion Practice Clinical Statement (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01](#E_CentralLine_Insertion_Practice_Clinic) |
| entry | 0..1 | SHOULD |  | [1129-28213](#C_1129-28213) |  |
| observation | 1..1 | SHALL |  | [1129-28214](#C_1129-28214) | [Antimicrobial Coated Catheter Used Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01](#E_Antimicrobial_Coated_Catheter_Used_Ob) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-22277) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.34" (CONF:1129-28199).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30288).
3. SHALL contain exactly one [1..1] code (CONF:1129-22273).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:1129-22274).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-28198).
4. SHALL contain exactly one [1..1] entry (CONF:1129-22275) such that it
   1. SHALL contain exactly one [1..1] [Central-Line Insertion Practice Clinical Statement (V2)](#E_CentralLine_Insertion_Practice_Clinic) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01) (CONF:1129-30430).
5. SHOULD contain zero or one [0..1] entry (CONF:1129-28213) such that it
   1. SHALL contain exactly one [1..1] [Antimicrobial Coated Catheter Used Observation](#E_Antimicrobial_Coated_Catheter_Used_Ob) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01) (CONF:1129-28214).

Figure 19: Infection Risk Factors Section in a CLIP Report Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Infection Risk Factors Section in a CLIP Report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.34"

extension="2014-12-01"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51898-5"

displayName="Risk Factors Section"/>

<title> Risk Factors </title>

...

<entry typeCode="DRIV">

<act moodCode="EVN" classCode="ACT" negationInd="false">

<!-- C-CDA Procedure Activity Act templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.12" />

<!-- Central-Line Insertion Practice Clinical Statement (V2) template-->

<templateId root="2.16.840.1.113883.10.20.5.6.116"

extension="2014-12-01" />

...

</act>

</entry>

<entry typeCode="DRIV">

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- Antimicrobial Coated Catheter Used Observation template-->

<templateId root="2.16.840.1.113883.10.20.5.6.217"

extension="2014-12-01" />

...

</observation>

</entry>

</section>

Infection Risk Factors Section in a Procedure Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.35 (closed)]

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Table 93: Infection Risk Factors Section in a Procedure Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Procedure Denominator Report (V2)](#D_HAI_Procedure_Denominator_Report_V2) (required) | [ASA Class Observation](#E_ASA_Class_Observation) (optional)  [Weight Observation](#E_Weight_Observation) (required)  [Height Observation](#E_Height_Observation) (required)  [Trauma Observation](#E_Trauma_Observation) (required)  [Diabetes Mellitus Observation](#E_Diabetes_Mellitus_Observation) (required)  [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) (required)  [Duration of Labor Observation](#E_Duration_of_Labor_Observation) (optional) |

In an HAI Procedure Denominator Report, the Infection Risk Factors Section contains procedure risk factors, trauma, diabetes mellitus, height, and weight observations. Optionally contained in this section are ASA class (if the patient is an inpatient) and duration of labor (if the procedure was a Cesarean) observations.

Table 94: Infection Risk Factors Section in a Procedure Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.35) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22279](#C_86-22279) |  |
| @root | 1..1 | SHALL |  | [86-22280](#C_86-22280) | 2.16.840.1.113883.10.20.5.5.35 |
| code | 1..1 | SHALL |  | [86-22281](#C_86-22281) |  |
| @code | 1..1 | SHALL |  | [86-22282](#C_86-22282) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [86-28361](#C_86-28361) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [86-22283](#C_86-22283) |  |
| procedure | 1..1 | SHALL |  | [86-22284](#C_86-22284) | [Procedure Risk Factors Clinical Statement in a Procedure Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156](#E_Procedure_Risk_Factors_Clinical_State) |
| entry | 1..1 | SHALL |  | [86-22285](#C_86-22285) |  |
| observation | 1..1 | SHALL |  | [86-22286](#C_86-22286) | [Trauma Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.170](#E_Trauma_Observation) |
| entry | 1..1 | SHALL |  | [86-22287](#C_86-22287) |  |
| observation | 1..1 | SHALL |  | [86-22288](#C_86-22288) | [Diabetes Mellitus Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123](#E_Diabetes_Mellitus_Observation) |
| entry | 1..1 | SHALL |  | [86-22289](#C_86-22289) |  |
| observation | 1..1 | SHALL |  | [86-22290](#C_86-22290) | [Height Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131](#E_Height_Observation) |
| entry | 1..1 | SHALL |  | [86-22291](#C_86-22291) |  |
| observation | 1..1 | SHALL |  | [86-22292](#C_86-22292) | [Weight Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173](#E_Weight_Observation) |
| entry | 0..1 | MAY |  | [86-23211](#C_86-23211) |  |
| observation | 1..1 | SHALL |  | [86-23212](#C_86-23212) | [ASA Class Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113](#E_ASA_Class_Observation) |
| entry | 0..1 | MAY |  | [86-23214](#C_86-23214) |  |
| observation | 1..1 | SHALL |  | [86-23215](#C_86-23215) | [Duration of Labor Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.127](#E_Duration_of_Labor_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22279) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.35" (CONF:86-22280).
3. SHALL contain exactly one [1..1] code (CONF:86-22281).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:86-22282).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28361).
4. SHALL contain exactly one [1..1] entry (CONF:86-22283) such that it
   1. SHALL contain exactly one [1..1] [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156) (CONF:86-22284).
5. SHALL contain exactly one [1..1] entry (CONF:86-22285) such that it
   1. SHALL contain exactly one [1..1] [Trauma Observation](#E_Trauma_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.170) (CONF:86-22286).
6. SHALL contain exactly one [1..1] entry (CONF:86-22287) such that it
   1. SHALL contain exactly one [1..1] [Diabetes Mellitus Observation](#E_Diabetes_Mellitus_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123) (CONF:86-22288).
7. SHALL contain exactly one [1..1] entry (CONF:86-22289) such that it
   1. SHALL contain exactly one [1..1] [Height Observation](#E_Height_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131) (CONF:86-22290).
8. SHALL contain exactly one [1..1] entry (CONF:86-22291) such that it
   1. SHALL contain exactly one [1..1] [Weight Observation](#E_Weight_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173) (CONF:86-22292).
9. MAY contain zero or one [0..1] entry (CONF:86-23211) such that it
   1. SHALL contain exactly one [1..1] [ASA Class Observation](#E_ASA_Class_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113) (CONF:86-23212).
   2. If the patient is an inpatient (componentOf/encompassingEncounter/code/@code="IMP"), an entry element SHALL be present containing an ASA Class Observation (CONF:86-23213).
10. MAY contain zero or one [0..1] entry (CONF:86-23214) such that it
    1. SHALL contain exactly one [1..1] [Duration of Labor Observation](#E_Duration_of_Labor_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.127) (CONF:86-23215).
    2. If the procedure, recorded in the Details Section of the report, was a Cesarean (code/@code is 2115-4), an entry element SHALL be present containing a Duration of Labor Observation (CONF:86-23216).

Figure 20: Infection Risk Factors Section in Procedure Report Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Infection Risk Factors Section in a Procedure Report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.35"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51898-5"

displayName="Risk Factors Section"/>

<title>Risk Factors</title>

...

<entry typeCode="DRIV">

<procedure classCode="PROC" moodCode="EVN">

<!-- Procedure Risk Factors Clinical Statement in a Procedure Report template -->

<templateId root="2.16.840.1.113883.10.20.5.6.156"/>

...

</procedure >

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Trauma Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.170"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Diabetes Mellitus Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.123"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Vital Sign Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.27"/>

<!-- Height Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.131"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Vital Sign Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.27"/>

<!-- Weight Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.173"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- ASA Class Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.113"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN">

<!-- Duration of Labor Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.127"/>

...

</observation>

</entry>

</section>

Infection Risk Factors Section in a UTI Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.36 (closed)]

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Table 95: Infection Risk Factors Section in a UTI Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Urinary Tract Infection Numerator Report (UTI) (V2)](#D_HAI_Urinary_Tract_Infection_Num_V2) (required) | [Urinary Catheter Observation](#E_Urinary_Catheter_Observation) (required) |

In a UTI Report, the Infection Risk Factors Section contains a single Urinary Catheter Observation.

Table 96: Infection Risk Factors Section in a UTI Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.36) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22300](#C_86-22300) |  |
| @root | 1..1 | SHALL |  | [86-22301](#C_86-22301) | 2.16.840.1.113883.10.20.5.5.36 |
| code | 1..1 | SHALL |  | [86-22296](#C_86-22296) |  |
| @code | 1..1 | SHALL |  | [86-22297](#C_86-22297) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [86-28362](#C_86-28362) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [86-22298](#C_86-22298) |  |
| observation | 1..1 | SHALL |  | [86-22299](#C_86-22299) | [Urinary Catheter Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.171](#E_Urinary_Catheter_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22300) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.36" (CONF:86-22301).
3. SHALL contain exactly one [1..1] code (CONF:86-22296).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:86-22297).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28362).
4. SHALL contain exactly one [1..1] entry (CONF:86-22298).
   1. This entry SHALL contain exactly one [1..1] [Urinary Catheter Observation](#E_Urinary_Catheter_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.171) (CONF:86-22299).

Figure 21: Infection Risk Factors Section in a UTI Report Example

<section>

<!-- HAI Generic section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Infection risk factors section in a UTI report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.36"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51898-5"

displayName="Risk Factors Section"/>

<title>Risk Factors</title>

...

<entry typeCode="DRIV">

observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- C-CDA Problem Observation templateId. -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Urinary Catheter Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.171"/>

...

</observation>

</entry>

</section>

Infection Risk Factors Section in an OPC Denominator for Procedure

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01 (closed)]

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Table 97: Infection Risk Factors Section in an OPC Denominator for Procedure Contexts

| Contained By: | Contains: |
| --- | --- |
| [Outpatient Procedure Component Denominator for Procedure Report](#D__Outpatient_Procedure_Component_Denom) (required) | [ASA Class Observation](#E_ASA_Class_Observation) (optional)  [Weight Observation](#E_Weight_Observation) (required)  [Height Observation](#E_Height_Observation) (required)  [Diabetes Mellitus Observation](#E_Diabetes_Mellitus_Observation) (required)  [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) (required) |

In an OPC Denominator for Procedure, the Infection Risk Factors Section contains procedure risk factors, ASA class, diabetes mellitus, height, and weight observations.

Table 98: Infection Risk Factors Section in an OPC Denominator for Procedure Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30645](#C_4395-30645) |  |
| @root | 1..1 | SHALL |  | [4395-30661](#C_4395-30661) | 2.16.840.1.113883.10.20.5.5.68 |
| @extension | 1..1 | SHALL |  | [4395-30664](#C_4395-30664) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30646](#C_4395-30646) |  |
| @code | 1..1 | SHALL |  | [4395-30662](#C_4395-30662) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [4395-30663](#C_4395-30663) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4395-30647](#C_4395-30647) |  |
| procedure | 1..1 | SHALL |  | [4395-30648](#C_4395-30648) | [Procedure Risk Factors Clinical Statement in a Procedure Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156](#E_Procedure_Risk_Factors_Clinical_State) |
| entry | 1..1 | SHALL |  | [4395-30651](#C_4395-30651) |  |
| observation | 1..1 | SHALL |  | [4395-30652](#C_4395-30652) | [Diabetes Mellitus Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123](#E_Diabetes_Mellitus_Observation) |
| entry | 1..1 | SHALL |  | [4395-30653](#C_4395-30653) |  |
| observation | 1..1 | SHALL |  | [4395-30654](#C_4395-30654) | [Height Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131](#E_Height_Observation) |
| entry | 1..1 | SHALL |  | [4395-30655](#C_4395-30655) |  |
| observation | 1..1 | SHALL |  | [4395-30656](#C_4395-30656) | [Weight Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173](#E_Weight_Observation) |
| entry | 0..1 | MAY |  | [4395-30657](#C_4395-30657) |  |
| observation | 1..1 | SHALL |  | [4395-30658](#C_4395-30658) | [ASA Class Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113](#E_ASA_Class_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30645) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.68" (CONF:4395-30661).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30664).
3. SHALL contain exactly one [1..1] code (CONF:4395-30646).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:4395-30662).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30663).
4. SHALL contain exactly one [1..1] entry (CONF:4395-30647) such that it
   1. SHALL contain exactly one [1..1] [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156) (CONF:4395-30648).
5. SHALL contain exactly one [1..1] entry (CONF:4395-30651) such that it
   1. SHALL contain exactly one [1..1] [Diabetes Mellitus Observation](#E_Diabetes_Mellitus_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123) (CONF:4395-30652).
6. SHALL contain exactly one [1..1] entry (CONF:4395-30653) such that it
   1. SHALL contain exactly one [1..1] [Height Observation](#E_Height_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131) (CONF:4395-30654).
7. SHALL contain exactly one [1..1] entry (CONF:4395-30655) such that it
   1. SHALL contain exactly one [1..1] [Weight Observation](#E_Weight_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173) (CONF:4395-30656).
8. MAY contain zero or one [0..1] entry (CONF:4395-30657) such that it
   1. SHALL contain exactly one [1..1] [ASA Class Observation](#E_ASA_Class_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113) (CONF:4395-30658).

Figure 22: Infection Risk Factors Section in an OPC Denominator for Procedure

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Infection Risk Factors Section in an OPC Denominator for Procedure -->

<templateId root="2.16.840.1.113883.10.20.5.5.68" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51898-5"

displayName="Risk Factors Section"/>

<title>Risk Factors</title>

...

<entry typeCode="DRIV">

<procedure classCode="PROC" moodCode="EVN">

<!-- Procedure Risk Factors Clinical Statement in a Procedure Report template -->

<templateId root="2.16.840.1.113883.10.20.5.6.156"/>

...

</procedure >

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Diabetes Mellitus Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.123"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Vital Sign Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.27"/>

<!-- Height Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.131"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Vital Sign Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.27"/>

<!-- Weight Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.173"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- ASA Class Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.113"/>

...

</observation>

</entry>

</section>

NHSN Comment Section

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 (closed)]

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Table 99: NHSN Comment Section Contexts

| Contained By: | Contains: |
| --- | --- |
| [Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report](#D_Healthcare_Personnel_Influenza_Vaccin) (optional)  [Vascular Access Type Report (VAT) Summary Report (V3)](#D_Vascular_Access_Type_Report_VAT_V3) (optional)  [Outpatient Procedure Component Same Day Outcome Measures Event Report](#D_Outpatient_Procedure_Component_Same_D) (optional)  [Outpatient Procedure Surgical Site Infection (SSI) Event Report](#D_Outpatient_Procedure_Surgical_Site_In) (optional)  [Outpatient Procedure Component Denominator for Same Day Outcome Measures Report](#D_Outpatient_Procedure_Component_Denomi) (optional)  [Antimicrobial Resistance Option (ARO) Summary Report (V3)](#D_ARO_Summary_V3) (optional)  [Outpatient Procedure Component Denominator for Procedure Report](#D__Outpatient_Procedure_Component_Denom) (optional)  [Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report](#D_Late_Onset_SepsisMeningitis_Denominat) (optional)  [Late Onset Sepsis/Meningitis Event (LOS) Report (V2)](#D_Late_Onset_SepsisMeningitis_Event_V2) (required)  [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) (optional)  [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) (optional) | [NHSN Comment](#E_NHSN_Comment) (required) |

The NHSN Comment Section contains the NHSN Comment template. This section is not specific to any one report and contains comments that are relevant to the whole report (it is not specific to any section of a report).

Table 100: NHSN Comment Section Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3311-172](#C_3311-172) |  |
| @root | 1..1 | SHALL |  | [3311-180](#C_3311-180) | 2.16.840.1.113883.10.20.5.5.61 |
| @extension | 1..1 | SHALL |  | [3311-181](#C_3311-181) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-173](#C_3311-173) |  |
| @code | 1..1 | SHALL |  | [3311-182](#C_3311-182) | 86468-6 |
| @codeSystem | 1..1 | SHALL |  | [3311-183](#C_3311-183) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [3311-179](#C_3311-179) |  |
| act | 1..1 | SHALL |  | [3311-184](#C_3311-184) | [NHSN Comment (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01](#E_NHSN_Comment) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-172) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.61" (CONF:3311-180).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-181).
3. SHALL contain exactly one [1..1] code (CONF:3311-173).
   1. This code SHALL contain exactly one [1..1] @code="86468-6" Report Comment Section (CONF:3311-182).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-183).
4. SHALL contain exactly one [1..1] entry (CONF:3311-179) such that it
   1. SHALL contain exactly one [1..1] [NHSN Comment](#E_NHSN_Comment) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01) (CONF:3311-184).

Figure 23: NHSN Comment Section Example

<section>

<!-- HAI Section Generic Constraints -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D2] NHSN Comment Section -->

<templateId root="2.16.840.1.113883.10.20.5.5.61" extension="2017-04-01" />

<code code="86468-6"

displayName="Report comment section"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<title>Comment</title>

<text>...</text>

<entry typeCode="DRIV">

<act classCode="ACT" moodCode="EVN">

<!-- [HAI R3D2] Comment -->

<templateId root="2.16.840.1.113883.10.20.5.6.243" extension="2017-04-01" />

...

</act>

</entry>

</section>

Procedure Details Section in a CLIP Report

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.42 (closed)]

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Table 101: Procedure Details Section in a CLIP Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Central-Line Insertion Practice Numerator Report (V2)](#D_HAI_CentralLine_Insertion_Practice_V2) (required) | [Procedure Details Clinical Statement in a CLIP Report](#E_Procedure_Details_CLIP) (required) |

In a CLIP Report, this section records details of the procedure, including the reason for it.

Table 102: Procedure Details Section in a CLIP Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.42) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22352](#C_86-22352) |  |
| @root | 1..1 | SHALL |  | [86-22353](#C_86-22353) | 2.16.840.1.113883.10.20.5.5.42 |
| code | 1..1 | SHALL |  | [86-22354](#C_86-22354) |  |
| @code | 1..1 | SHALL |  | [86-22355](#C_86-22355) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [86-28363](#C_86-28363) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [86-22356](#C_86-22356) |  |
| procedure | 1..1 | SHALL |  | [86-22357](#C_86-22357) | [Procedure Details Clinical Statement in a CLIP Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.155](#E_Procedure_Details_CLIP) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22352) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.42" (CONF:86-22353).
3. SHALL contain exactly one [1..1] code (CONF:86-22354).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:86-22355).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28363).
4. SHALL contain exactly one [1..1] entry (CONF:86-22356).
   1. This entry SHALL contain exactly one [1..1] [Procedure Details Clinical Statement in a CLIP Report](#E_Procedure_Details_CLIP) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.155) (CONF:86-22357).

Figure 24: Procedure Details Section in a CLIP Report Example

<section>

<!-- HAI Generic section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Procedure details section in a CLIP report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.42"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details Section"/>

<title>Details</title>

...

<entry typeCode="DRIV">

<!-- Procedure Details Clinical Statement in a CLIP Report -->

<procedure moodCode="EVN" classCode="PROC">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14"/>

<-- HAI Procedure Details Clinical Statement in a CLIP Report templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.155"/>

...

</procedure >

</entry>

</section>

Procedure Details Section in a Procedure Report (V2)

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.43.2 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 1 - US Realm

Table 103: Procedure Details Section in a Procedure Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Procedure Denominator Report (V2)](#D_HAI_Procedure_Denominator_Report_V2) (required) | [Procedure Details Clinical Statement in a Procedure Report (V2)](#Procedure_Details_Clinical_Statement_in) (required) |

This section records details of the procedure.

Table 104: Procedure Details Section in a Procedure Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.43.2) | | | | | |
| templateId | 1..1 | SHALL |  | [1101-22358](#C_1101-22358) |  |
| @root | 1..1 | SHALL |  | [1101-30248](#C_1101-30248) | 2.16.840.1.113883.10.20.5.5.43.2 |
| code | 1..1 | SHALL |  | [1101-22360](#C_1101-22360) |  |
| @code | 1..1 | SHALL |  | [1101-22361](#C_1101-22361) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [1101-30314](#C_1101-30314) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [1101-22362](#C_1101-22362) |  |
| procedure | 1..1 | SHALL |  | [1101-30249](#C_1101-30249) | [Procedure Details Clinical Statement in a Procedure Report (V2) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.153.2](#Procedure_Details_Clinical_Statement_in) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1101-22358) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.43.2" (CONF:1101-30248).
3. SHALL contain exactly one [1..1] code (CONF:1101-22360).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:1101-22361).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1101-30314).
4. SHALL contain exactly one [1..1] entry (CONF:1101-22362).
   1. This entry SHALL contain exactly one [1..1] [Procedure Details Clinical Statement in a Procedure Report (V2)](#Procedure_Details_Clinical_Statement_in) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.153.2) (CONF:1101-30249).

Figure 25: Procedure Details Section in a Procedure Report Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- Procedure Details Section in a Procedure Report (V2) template -->

<templateId root="2.16.840.1.113883.10.20.5.5.43.2"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details Section"/>

<title>Details</title>

...

<entry typeCode="DRIV">

<!-- Procedure Details Clinical Statement in a Procedure Report (V2) -->

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14"/>

<!-- Procedure Details Clinical Statement in a Procedure Report (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.153.2"/>

...

</procedure>

</entry>

</section>

Procedure Details Section in an OPC Denominator for Procedure

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 105: Procedure Details Section in an OPC Denominator for Procedure Contexts

| Contained By: | Contains: |
| --- | --- |
| [Outpatient Procedure Component Denominator for Procedure Report](#D__Outpatient_Procedure_Component_Denom) (required) | [Procedure Details in an OPC Denominator for Procedure](#E_Procedure_Details_in_an_OPC_Denominat) (required) |

This section records details of the procedure.

Table 106: Procedure Details Section in an OPC Denominator for Procedure Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30611](#C_4395-30611) |  |
| @root | 1..1 | SHALL |  | [4395-30615](#C_4395-30615) | 2.16.840.1.113883.10.20.5.5.67 |
| @extension | 1..1 | SHALL |  | [4395-30618](#C_4395-30618) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30612](#C_4395-30612) |  |
| @code | 1..1 | SHALL |  | [4395-30616](#C_4395-30616) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [4395-30617](#C_4395-30617) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4395-30613](#C_4395-30613) |  |
| procedure | 1..1 | SHALL |  | [4395-30614](#C_4395-30614) | [Procedure Details in an OPC Denominator for Procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01](#E_Procedure_Details_in_an_OPC_Denominat) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30611) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.67" (CONF:4395-30615).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30618).
3. SHALL contain exactly one [1..1] code (CONF:4395-30612).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Details Section (CONF:4395-30616).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30617).
4. SHALL contain exactly one [1..1] entry (CONF:4395-30613).
   1. This entry SHALL contain exactly one [1..1] [Procedure Details in an OPC Denominator for Procedure](#E_Procedure_Details_in_an_OPC_Denominat) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01) (CONF:4395-30614).

Figure 26: Procedure Details Section in an OPC Denominator for Procedure Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- Procedure Details Section in an OPC Denominator for Procedure -->

<templateId root="2.16.840.1.113883.10.20.5.5.67" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Details Section"/>

<title>Details</title>

...

<entry typeCode="DRIV">

<!-- Procedure Details in an OPC Denominator for Procedure -->

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14"/>

<!-- Procedure Details in an OPC Denominator for Procedure -->

<templateId root="2.16.840.1.113883.10.20.5.6.259" extension="2019-04-01"/>

...

</procedure>

</entry>

</section>

Report No Events Section

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

Table 107: Report No Events Section Contexts

| Contained By: | Contains: |
| --- | --- |
| [Neonatal Intensive Care Unit (NICU) Summary Report (V3)](#D_Neonatal_Intensive_Care_Unit_NICU_V3) (optional)  [Intensive Care Unit (ICU) Summary Report (V3)](#D_Intensive_Care_Unit_ICU_Summary_V3) (optional)  [Specialty Care Area (SCA) Summary Report (V3)](#D_Specialty_Care_Area_SCA_Summary_V3) (optional)  [Prevention Process and Outcome Measures (POM) Summary Report (V3)](#D_Prevention_Process_and_Outcome_V3) (optional)  [Vascular Access Type Report (VAT) Summary Report (V3)](#D_Vascular_Access_Type_Report_VAT_V3) (optional)  [Outpatient Procedure Component Denominator for Same Day Outcome Measures Report](#D_Outpatient_Procedure_Component_Denomi) (optional)  [Antimicrobial Resistance Option (ARO) Summary Report (V3)](#D_ARO_Summary_V3) (optional) | [Report No Events](#E_Report_No_Events) (required) |

The Report No Events Section contains the Report No Events template. This section is available for use in any report. If this section is present in a report it must contain at least one entry.

Table 108: Report No Events Section Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-30604](#C_3357-30604) |  |
| @root | 1..1 | SHALL |  | [3357-30608](#C_3357-30608) | 2.16.840.1.113883.10.20.5.5.62 |
| @extension | 1..1 | SHALL |  | [3357-30609](#C_3357-30609) | 2018-04-01 |
| code | 1..1 | SHALL |  | [3357-30605](#C_3357-30605) |  |
| @code | 1..1 | SHALL |  | [3357-30610](#C_3357-30610) | 90252-8 |
| @codeSystem | 1..1 | SHALL |  | [3357-30611](#C_3357-30611) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..\* | SHALL |  | [3357-30606](#C_3357-30606) |  |
| act | 1..1 | SHALL |  | [3357-30910](#C_3357-30910) | [Report No Events (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01](#E_Report_No_Events) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-30604) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.62" (CONF:3357-30608).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30609).
3. SHALL contain exactly one [1..1] code (CONF:3357-30605).
   1. This code SHALL contain exactly one [1..1] @code="90252-8" Report No Events section (CONF:3357-30610).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3357-30611).
4. SHALL contain at least one [1..\*] entry (CONF:3357-30606) such that it
   1. SHALL contain exactly one [1..1] [Report No Events](#E_Report_No_Events) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01) (CONF:3357-30910).

Figure 27: Report No Events Section Example

<section>

<!-- HAI Section Generic Constraints -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D3] Report No Events Section -->

<templateId root="2.16.840.1.113883.10.20.5.5.62" extension="2018-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="90252-8"

displayName="Report No Events Section" />

<title>Report No Events</title>

<text>

<table>

<tbody>

<tr>

<td>Report no infection surveillance events - Methicillin-resistant Staphylococcus aureus</td>

</tr>

</tbody>

</table>

</text>

<entry typeCode="DRIV">

<act classCode="ACT" moodCode="EVN">

<!-- [HAI R3D3] Report No Events-->

<templateId root="2.16.840.1.113883.10.20.5.6.249" extension="2018" />

...

</act>

</entry>

...

</section>

Risk Factors Section in a LOS/Men Denominator

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 109: Risk Factors Section in a LOS/Men Denominator Contexts

| Contained By: | Contains: |
| --- | --- |
| [Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report](#D_Late_Onset_SepsisMeningitis_Denominat) (required) | [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) (required)  [Gestational Age at Birth Observation (V2)](#E_Gestational_Age_at_Birth_Observation_) (required) |

This template represents the risk factors section found in the Late Onset Sepsis / Meningitis Denominator form.

It contains the following elements:

* Birth weight (grams)
* Gestational age (days)

Table 110: Risk Factors Section in a LOS/Men Denominator Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30886](#C_4395-30886) |  |
| @root | 1..1 | SHALL |  | [4395-30894](#C_4395-30894) | 2.16.840.1.113883.10.20.5.5.72 |
| @extension | 1..1 | SHALL |  | [4395-30895](#C_4395-30895) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30889](#C_4395-30889) |  |
| @code | 1..1 | SHALL |  | [4395-30896](#C_4395-30896) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [4395-30897](#C_4395-30897) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [4395-30887](#C_4395-30887) |  |
| observation | 1..1 | SHALL |  | [4395-30888](#C_4395-30888) | [Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137](#E_Infection_Risk_Factors_Measurement_Ob) |
| entry | 1..1 | SHALL |  | [4395-30892](#C_4395-30892) |  |
| observation | 1..1 | SHALL |  | [4395-30893](#C_4395-30893) | [Gestational Age at Birth Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01](#E_Gestational_Age_at_Birth_Observation_) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30886) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.72" (CONF:4395-30894).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30895).
3. SHALL contain exactly one [1..1] code (CONF:4395-30889).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:4395-30896).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30897).
4. SHALL contain exactly one [1..1] entry (CONF:4395-30887) such that it
   1. SHALL contain exactly one [1..1] [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137) (CONF:4395-30888).
5. SHALL contain exactly one [1..1] entry (CONF:4395-30892) such that it
   1. SHALL contain exactly one [1..1] [Gestational Age at Birth Observation (V2)](#E_Gestational_Age_at_Birth_Observation_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01) (CONF:4395-30893).

Figure 28: Risk Factors Section In a LOS/Men Denominator

<section>

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D4] Risk Factors Section in a LOS/Men Denominator -->

<templateId root="2.16.840.1.113883.10.20.5.5.72" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51898-5" displayName="Risk Factors" />

<title>Risk Factors</title>

<text>

...

</text>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Vital Sign Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.27" />

<!-- [HAI] Infection Risk Factors Measurement Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.137" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [HAI R3D4] Gestational Age Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.255" extension="2019-04-01"/>

...

</observation>

</entry>

</section>

Risk Factors Section in a LOS/Men Event (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 111: Risk Factors Section in a LOS/Men Event (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Late Onset Sepsis/Meningitis Event (LOS) Report (V2)](#D_Late_Onset_SepsisMeningitis_Event_V2) (required) | [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) (required)  [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) (optional)  [Gestational Age at Birth Observation (V2)](#E_Gestational_Age_at_Birth_Observation_) (required) |

This template represents the risk factors section found in the Late Onset Sepsis / Meningitis Event form.

It contains the following elements:

* Central line present prior to event, including umbilical catheter
* Birth weight (grams)
* Gestational age (days)

Table 112: Risk Factors Section in a LOS/Men Event (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30753](#C_4395-30753) |  |
| @root | 1..1 | SHALL |  | [4395-30756](#C_4395-30756) | 2.16.840.1.113883.10.20.5.5.65 |
| @extension | 1..1 | SHALL |  | [4395-30757](#C_4395-30757) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30758](#C_4395-30758) |  |
| @code | 1..1 | SHALL |  | [4395-30759](#C_4395-30759) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [4395-30760](#C_4395-30760) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 0..1 | MAY |  | [4395-30761](#C_4395-30761) |  |
| observation | 1..1 | SHALL |  | [4395-30762](#C_4395-30762) | [Infection Risk Factors Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138](#E_Infection_Risk_Factors_Observation) |
| entry | 1..1 | SHALL |  | [4395-30754](#C_4395-30754) |  |
| observation | 1..1 | SHALL |  | [4395-30755](#C_4395-30755) | [Infection Risk Factors Measurement Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137](#E_Infection_Risk_Factors_Measurement_Ob) |
| entry | 1..1 | SHALL |  | [4395-30981](#C_4395-30981) |  |
| observation | 1..1 | SHALL |  | [4395-30982](#C_4395-30982) | [Gestational Age at Birth Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01](#E_Gestational_Age_at_Birth_Observation_) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30753) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.65" (CONF:4395-30756).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30757).
3. SHALL contain exactly one [1..1] code (CONF:4395-30758).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:4395-30759).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30760).
4. MAY contain zero or one [0..1] entry (CONF:4395-30761) such that it
   1. SHALL contain exactly one [1..1] [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138) (CONF:4395-30762).
5. SHALL contain exactly one [1..1] entry (CONF:4395-30754) such that it
   1. SHALL contain exactly one [1..1] [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137) (CONF:4395-30755).
6. SHALL contain exactly one [1..1] entry (CONF:4395-30981) such that it
   1. SHALL contain exactly one [1..1] [Gestational Age at Birth Observation (V2)](#E_Gestational_Age_at_Birth_Observation_) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01) (CONF:4395-30982).

Figure 29: Risk Factors Section in a LOS/Men Event (V2) Example

<section>

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D4] Risk Factors Section in a LOS/Men Event (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.5.65" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC" code="51898-5" displayName="Risk Factors" />

<title>Risk Factors</title>

<text>

...

</text>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI] Infection Risk Factors Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.138" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Vital Sign Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.27" />

<!-- [HAI] Infection Risk Factors Measurement Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.137" />

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [HAI R3D4] Gestational Age Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.255" extension="2019-04-01"/>

...

</observation>

</entry>

</section>

Risk Factors Section in a VAE Report

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 2 - US Realm

Table 113: Risk Factors Section in a VAE Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) (required) | [Mechanical Ventilation Initiation Act](#E_Mechanical_Ventilation_Initiation_Act) (required)  [APRV or Related at Time of VAE Observation](#E_APRV_or_Related_at_Time_of_VAE_Observ) (optional) |

In a VAE Report, the Risk Factors Section contains a Mechanical Ventilation Initiation Act and an APRV or Related at Time of VAE Observation.

Table 114: Risk Factors Section in a VAE Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3311-140](#C_3311-140) |  |
| @root | 1..1 | SHALL |  | [3311-144](#C_3311-144) | 2.16.840.1.113883.10.20.5.5.60 |
| @extension | 1..1 | SHALL |  | [3311-145](#C_3311-145) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-139](#C_3311-139) |  |
| @code | 1..1 | SHALL |  | [3311-142](#C_3311-142) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [3311-143](#C_3311-143) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [3311-138](#C_3311-138) |  |
| act | 1..1 | SHALL |  | [3311-28394](#C_3311-28394) | [Mechanical Ventilation Initiation Act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01](#E_Mechanical_Ventilation_Initiation_Act) |
| entry | 0..1 | MAY |  | [3311-28395](#C_3311-28395) |  |
| observation | 1..1 | SHALL |  | [3311-28410](#C_3311-28410) | [APRV or Related at Time of VAE Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01](#E_APRV_or_Related_at_Time_of_VAE_Observ) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-140) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.60" (CONF:3311-144).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-145).
3. SHALL contain exactly one [1..1] code (CONF:3311-139).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:3311-142).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-143).
4. SHALL contain exactly one [1..1] entry (CONF:3311-138) such that it
   1. SHALL contain exactly one [1..1] [Mechanical Ventilation Initiation Act](#E_Mechanical_Ventilation_Initiation_Act) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01) (CONF:3311-28394).
5. MAY contain zero or one [0..1] entry (CONF:3311-28395) such that it
   1. SHALL contain exactly one [1..1] [APRV or Related at Time of VAE Observation](#E_APRV_or_Related_at_Time_of_VAE_Observ) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01) (CONF:3311-28410).

Figure 30: Risk Factors Section in a VAE Report Example

<section>

<!-- HAI Section Generic Constraints -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D2] Risk Factors Section in a VAE Report -->

<templateId root="2.16.840.1.113883.10.20.5.5.60" extension="2017-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51898-5"

displayName="Risk Factors" />

<title>Risk Factors</title>

<text>...</text>

<entry typeCode="DRIV">

<!-- Contains the mechanical ventilation initiation time and location of where the initiation took place -->

<!-- Mechanical Ventilation Initiation Act -->

<act classCode="ACT" moodCode="EVN">

<!-- [C-CDA R1.1] Procedure Activity Act -->

<templateId root="2.16.840.1.113883.10.20.22.4.12" />

<!-- [HAI] Mechanical Ventilation Initiation Act -->

<templateId root="2.16.840.1.113883.10.20.5.6.244" extension="2017-04-01" />

...

</act>

</entry>

<!-- APRV or Related at Time of VAE Observation is optional -->

<entry typeCode="DRIV">

<!-- Setting negationInd="false" indicates that the Patient on Airway Pressure Release Ventilation (APRV)

or a related mode of mechanical ventilation at the time of VAE -->

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- [HAI R3D2] APRV or Related at Time of VAE Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.248" extension="2017-04-01" />

...

</observation>

</entry>

</section>

Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2015-10-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, DSTU 1 - US Realm

Table 115: Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [HAI Evidence of Infection (Dialysis) Report (V6)](#D_HAI_Evidence_of_Infection_Dialysis_V6) (required) | [Vascular Access Type Observation](#E_Vascular_Access_Type_Observation) (required)  [Dialysis Patient Observation](#E_Dialysis_Patient_Observation) (required)  [Dialyzer Reused Observation](#Dialyzer_Reused_Observation) (required) |

In an EOID Report, the Risk Factors Section contains at least one Vascular Access Type Observation for each value in the NHSNVascularAccessTypeCode Value Set. Additional observations record whether a vascular access type other than those listed is present and whether or not the patient's dialyzer is reused.

Table 116: Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2015-10-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1202-22302](#C_1202-22302) |  |
| @root | 1..1 | SHALL |  | [1202-22303](#C_1202-22303) | 2.16.840.1.113883.10.20.5.5.37 |
| code | 1..1 | SHALL |  | [1202-22304](#C_1202-22304) |  |
| @code | 1..1 | SHALL |  | [1202-22305](#C_1202-22305) | 51898-5 |
| @codeSystem | 1..1 | SHALL |  | [1202-28364](#C_1202-28364) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [1202-22306](#C_1202-22306) |  |
| observation | 1..1 | SHALL |  | [1202-22307](#C_1202-22307) | [Dialysis Patient Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.125](#E_Dialysis_Patient_Observation) |
| entry | 1..1 | SHALL |  | [1202-28365](#C_1202-28365) |  |
| observation | 1..1 | SHALL |  | [1202-28366](#C_1202-28366) | [Dialyzer Reused Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.231:2015-10-01](#Dialyzer_Reused_Observation) |
| entry | 6..6 | SHALL |  | [1202-22308](#C_1202-22308) |  |
| observation | 1..1 | SHALL |  | [1202-22309](#C_1202-22309) | [Vascular Access Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.172](#E_Vascular_Access_Type_Observation) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1202-22302) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.37" (CONF:1202-22303).
3. SHALL contain exactly one [1..1] code (CONF:1202-22304).
   1. This code SHALL contain exactly one [1..1] @code="51898-5" Risk Factors Section (CONF:1202-22305).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1202-28364).
4. SHALL contain exactly one [1..1] entry (CONF:1202-22306) such that it
   1. SHALL contain exactly one [1..1] [Dialysis Patient Observation](#E_Dialysis_Patient_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.125) (CONF:1202-22307).
5. SHALL contain exactly one [1..1] entry (CONF:1202-28365) such that it
   1. SHALL contain exactly one [1..1] [Dialyzer Reused Observation](#Dialyzer_Reused_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.231:2015-10-01) (CONF:1202-28366).
6. SHALL contain [6..6] entry (CONF:1202-22308) such that it
   1. SHALL contain exactly one [1..1] [Vascular Access Type Observation](#E_Vascular_Access_Type_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.172) (CONF:1202-22309).

Figure 31: Risk Factors Section in an Evidence of Infection (Dialysis) Report Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Risk Factors Section in an EOID Report template -->

<templateId root="2.16.840.1.113883.10.20.5.5.37" extension="2015-10-01"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51898-5"

displayName=" Risk Factors Section"/>

<title>Risk Factors</title>

...

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Dialysis Patient Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.125"/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation Type -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Vascular Access Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.172"/>

...

</observation>

</entry>

...

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation Type -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Vascular Access Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.172"/>

...

</observation>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- Dialyzer Reused Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.231"

extension="2015-10-01"/>

...

</observation>

</entry>

...

</section>

Same Day Outcome Measures Event Details Section

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01 (closed)]

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Table 117: Same Day Outcome Measures Event Details Section Contexts

| Contained By: | Contains: |
| --- | --- |
| [Outpatient Procedure Component Same Day Outcome Measures Event Report](#D_Outpatient_Procedure_Component_Same_D) (required) | [Same Day Outcome Measures Organizer (V3)](#E_Same_Day_Outcome_Measures_Organizer_V3) (optional) |

In an Outpatient Procedure Component Same Day Outcome Measures Event, the Same Day Outcome Measures Event Details Section contains details about same-day outcome measures events.

Table 118: Same Day Outcome Measures Event Details Section Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-30551](#C_4395-30551) |  |
| @root | 1..1 | SHALL |  | [4395-30555](#C_4395-30555) | 2.16.840.1.113883.10.20.5.5.66 |
| @extension | 1..1 | SHALL |  | [4395-30558](#C_4395-30558) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30552](#C_4395-30552) |  |
| @code | 1..1 | SHALL |  | [4395-30556](#C_4395-30556) | 51899-3 |
| @codeSystem | 1..1 | SHALL |  | [4395-30557](#C_4395-30557) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 0..\* | SHOULD |  | [4395-30549](#C_4395-30549) |  |
| organizer | 0..1 | SHOULD |  | [4395-30550](#C_4395-30550) | [Same Day Outcome Measures Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01](#E_Same_Day_Outcome_Measures_Organizer_V3) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30551) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.66" (CONF:4395-30555).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30558).
3. SHALL contain exactly one [1..1] code (CONF:4395-30552).
   1. This code SHALL contain exactly one [1..1] @code="51899-3" Event Details (CONF:4395-30556).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30557).
4. SHOULD contain zero or more [0..\*] entry (CONF:4395-30549) such that it
   1. SHOULD contain zero or one [0..1] [Same Day Outcome Measures Organizer (V3)](#E_Same_Day_Outcome_Measures_Organizer_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01) (CONF:4395-30550).

Figure 32: Same Day Outcome Measures Event Details Section Example

<section>

<!-- HAI Generic section templateId -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- Same Day Outcome Measures Event Details Section -->

<templateId root="2.16.840.1.113883.10.20.5.5.66" extension="2019-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51899-3"

displayName="Event Details" />

<title>Same Day Outcome Measures Event Details</title>

...

<entry typeCode="DRIV">

<!-- Same Day Outcome Measure Organizer (V3)-->

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Same Day Outcome Measure Organizer templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.212" extension="2019-04-01" />

...

</organizer>

</entry>

</section>

Summary Data Section

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.47 (closed)]

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Table 119: Summary Data Section Contexts

| Contained By: | Contains: |
| --- | --- |
| [Intensive Care Unit (ICU) Summary Report (V3)](#D_Intensive_Care_Unit_ICU_Summary_V3) (required)  [Specialty Care Area (SCA) Summary Report (V3)](#D_Specialty_Care_Area_SCA_Summary_V3) (required)  [Outpatient Procedure Component Denominator for Same Day Outcome Measures Report](#D_Outpatient_Procedure_Component_Denomi) (required) | [Summary Encounter](#E_Summary_Encounter) (required) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Encounter requires a participant representing the facility or in-facility location to which the data pertain. Most summary reports contain data for a single location. To report data for more than one location, use a separate Summary Encounter element for each. For example, a POM report typically reports data for an in-facility location, but under some circumstances the NHSN protocol also requires facility-wide data. Use one Summary Encounter to report the data for the in-facility location, and a separate Summary Encounter to report the facility-wide data.

If the data in a population summary report are categorized--as, for example, data on a NICU population are categorized by patient birth weight--each category is represented by a separate Summary Encounter element. If there is no categorization, the report concerns a group that has only one category and it therefore will contain only one Summary Data Encounter element. This is the usual case.

Table 120: Summary Data Section Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.47) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22386](#C_86-22386) |  |
| @root | 1..1 | SHALL |  | [86-22387](#C_86-22387) | 2.16.840.1.113883.10.20.5.5.47 |
| code | 1..1 | SHALL |  | [86-22388](#C_86-22388) |  |
| @code | 1..1 | SHALL |  | [86-22389](#C_86-22389) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [86-28365](#C_86-28365) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..\* | SHALL |  | [86-22390](#C_86-22390) |  |
| encounter | 1..1 | SHALL |  | [86-22391](#C_86-22391) | [Summary Encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.184](#E_Summary_Encounter) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22386) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.47" (CONF:86-22387).
3. SHALL contain exactly one [1..1] code (CONF:86-22388).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:86-22389).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28365).
4. SHALL contain at least one [1..\*] entry (CONF:86-22390).
   1. Such entries SHALL contain exactly one [1..1] [Summary Encounter](#E_Summary_Encounter) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.184) (CONF:86-22391).

Figure 33: Summary Data Section Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Summary Data Section template -->

<templateId root="2.16.840.1.113883.10.20.5.5.47"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51900-9"

displayName="Summary Data Section"/>

...

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- HAI Summary Encounter template -->

<templateId root="2.16.840.1.113883.10.20.5.5.184"/>

...

</encounter>

</entry>

<entry typeCode="DRIV">

<encounter>

...

</encounter>

</entry>

</section>

Summary Data Section (ARO) (V3)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01 (closed)]

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Table 121: Summary Data Section (ARO) (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Antimicrobial Resistance Option (ARO) Summary Report (V3)](#D_ARO_Summary_V3) (required) | [Summary Encounter (ARO) (V3)](#E_Summary_Encounter_ARO_V3) (required) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.  
The Summary Data Section (ARO) extends its generic equivalent, but is specific to the Antimicrobial Resistance Option (ARO) Summary Report.

Table 122: Summary Data Section (ARO) (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [4395-23070](#C_4395-23070) |  |
| @root | 1..1 | SHALL |  | [4395-23071](#C_4395-23071) | 2.16.840.1.113883.10.20.5.5.52 |
| @extension | 1..1 | SHALL |  | [4395-30920](#C_4395-30920) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-23072](#C_4395-23072) |  |
| @code | 1..1 | SHALL |  | [4395-23073](#C_4395-23073) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [4395-28366](#C_4395-28366) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..\* | SHALL |  | [4395-23074](#C_4395-23074) |  |
| encounter | 1..1 | SHALL |  | [4395-23075](#C_4395-23075) | [Summary Encounter (ARO) (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01](#E_Summary_Encounter_ARO_V3) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-23070) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.52" (CONF:4395-23071).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30920).
3. SHALL contain exactly one [1..1] code (CONF:4395-23072).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:4395-23073).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-28366).
4. SHALL contain at least one [1..\*] entry (CONF:4395-23074).
   1. Such entries SHALL contain exactly one [1..1] [Summary Encounter (ARO) (V3)](#E_Summary_Encounter_ARO_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01) (CONF:4395-23075).

Figure 34: Summary Data Section (ARO) (V3) Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Summary Data Section (ARO) template (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.5.52"

extension="2019-04-01"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51900-9"

displayName="Summary Data Section"/>

...

<entry>

<encounter classCode="ENC" moodCode="EVN">

<!-- HAI Summary Encounter (ARO) (V3) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.199"

extension="2019-04-01"/>

...

</encounter>

</entry>

</section>

Summary Data Section (AUP) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01 (closed)]

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Table 123: Summary Data Section (AUP) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Antimicrobial Use (AUP) Summary Report (V2)](#D_Antimicrobial_Use_AUP_Summary_Report_) (required) | [Summary Encounter Patient Presence (AUP) (V2)](#E_Summary_Encounter_Patient_Pres_AU) (required)  [Summary Encounter (AUP) (V2)](#E_Summary_Encounter_AUP_V2) (required) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Data Section (AUP) extends its generic equivalent but is specific to the Antimicrobial Use (AUP) Summary Report.

Table 124: Summary Data Section (AUP) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1181-23013](#C_1181-23013) |  |
| @root | 1..1 | SHALL |  | [1181-23014](#C_1181-23014) | 2.16.840.1.113883.10.20.5.5.51 |
| @extension | 1..1 | SHALL |  | [1181-30565](#C_1181-30565) | 2015-04-01 |
| code | 1..1 | SHALL |  | [1181-23015](#C_1181-23015) |  |
| @code | 1..1 | SHALL |  | [1181-23016](#C_1181-23016) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [1181-28367](#C_1181-28367) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [1181-23017](#C_1181-23017) |  |
| encounter | 1..1 | SHALL |  | [1181-23018](#C_1181-23018) | [Summary Encounter Patient Presence (AUP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01](#E_Summary_Encounter_Patient_Pres_AU) |
| entry | 1..\* | SHALL |  | [1181-23046](#C_1181-23046) |  |
| encounter | 1..1 | SHALL |  | [1181-23047](#C_1181-23047) | [Summary Encounter (AUP) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01](#E_Summary_Encounter_AUP_V2) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1181-23013) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.51" (CONF:1181-23014).
   2. SHALL contain exactly one [1..1] @extension="2015-04-01" (CONF:1181-30565).
3. SHALL contain exactly one [1..1] code (CONF:1181-23015).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:1181-23016).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1181-28367).
4. SHALL contain exactly one [1..1] entry (CONF:1181-23017) such that it
   1. SHALL contain exactly one [1..1] [Summary Encounter Patient Presence (AUP) (V2)](#E_Summary_Encounter_Patient_Pres_AU) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01) (CONF:1181-23018).
5. SHALL contain at least one [1..\*] entry (CONF:1181-23046) such that it
   1. SHALL contain exactly one [1..1] [Summary Encounter (AUP) (V2)](#E_Summary_Encounter_AUP_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01) (CONF:1181-23047).

Figure 35: Summary Data Section (AUP) (V2)

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Summary Data Section (AUP) (V2) template -->

<templateId root="2.16.840.1.113883.10.20.5.5.51"

extension="2015-01-04"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51900-9"

displayName="Summary Data Section"/>

...

<entry>

<encounter classCode="ENC" moodCode="EVN">

<!-- HAI Summary Encounter Patient Presence (AUP) (V2) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.197"

extension="2015-01-04"/>

...

</encounter>

</entry>

<entry>

<encounter classCode="ENC" moodCode="EVN">

<!-- HAI Summary Encounter (AUP) (V2) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.198"

extension="2015-01-04"/>

...

</encounter>

</entry>

<entry>

<encounter>

...

</encounter>

</entry>

</section>

Summary Data Section (HP-FLU)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 2 - US Realm

Table 125: Summary Data Section (HP-FLU) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report](#D_Healthcare_Personnel_Influenza_Vaccin) (required) | [Summary Encounter (HP-FLU)](#E_Summary_Encounter_HPFLU) (required)  [Vaccination Type Observation](#E_Vaccination_Type_Observation) (required) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever it is used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The HP-FLU report extends the simple pattern for Summary Encounter. This report is stratified by healthcare personnel (HCP) type. Each type is recorded in a separate Summary Encounter (HP-FLU) within the Summary Data Section (HP-FLU). The HCP type is recorded as a participant in the encounter, in addition to the location participant that is required in all Summary Encounters.

Table 126: Summary Data Section (HP-FLU) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3311-18](#C_3311-18) |  |
| @root | 1..1 | SHALL |  | [3311-21](#C_3311-21) | 2.16.840.1.113883.10.20.5.5.58 |
| @extension | 1..1 | SHALL |  | [3311-24](#C_3311-24) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-19](#C_3311-19) |  |
| @code | 1..1 | SHALL |  | [3311-22](#C_3311-22) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [3311-23](#C_3311-23) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [3311-17](#C_3311-17) |  |
| observation | 1..1 | SHALL |  | [3311-28415](#C_3311-28415) | [Vaccination Type Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01](#E_Vaccination_Type_Observation) |
| entry | 1..\* | SHALL |  | [3311-75](#C_3311-75) |  |
| encounter | 1..1 | SHALL |  | [3311-28413](#C_3311-28413) | [Summary Encounter (HP-FLU) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01](#E_Summary_Encounter_HPFLU) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-18) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.58" (CONF:3311-21).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-24).
3. SHALL contain exactly one [1..1] code (CONF:3311-19).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:3311-22).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-23).
4. SHALL contain exactly one [1..1] entry (CONF:3311-17) such that it
   1. SHALL contain exactly one [1..1] [Vaccination Type Observation](#E_Vaccination_Type_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01) (CONF:3311-28415).
5. SHALL contain at least one [1..\*] entry (CONF:3311-75) such that it
   1. SHALL contain exactly one [1..1] [Summary Encounter (HP-FLU)](#E_Summary_Encounter_HPFLU) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01) (CONF:3311-28413).

Figure 36: Summary Data Section (HP-FLU) Example

<section>

<!-- HAI Section Generic Constraints -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D2] Summary Data Section (HP-FLU) -->

<templateId root="2.16.840.1.113883.10.20.5.5.58" extension="2017-04-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51900-9"

displayName="Summary Section" />

<title>Summary Data</title>

<text>...</text>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3D2] Vaccination Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.242" extension="2017-04-01" />

...

</observation>

</entry>

<!-- Employees (staff on facility payroll) -->

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3D2] Summary Encounter (HP-FLU) -->

<templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />

...

</encounter>

</entry>

<!-- Licensed independent practitioners -->

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3D2] Summary Encounter (HP-FLU) -->

<templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />

...

</encounter>

</entry>

<!-- Adult students/trainees & volunteers -->

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3D2] Summary Encounter (HP-FLU) -->

<templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />

...

</encounter>

</entry>

<!-- Other contract personnel -->

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3D2] Summary Encounter (HP-FLU) -->

<templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />

...

</encounter>

</entry>

</section>

Summary Data Section (HV) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01 (closed)]

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Table 127: Summary Data Section (HV) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Hemovigilance (HV) Summary Report (V2)](#D_Hemovigilance_HV_Summary_Report_V2) (required) | [No Hemovigilance Adverse Reactions Reported This Month Observation](#E_No_Hemovigilance_Adverse_Reactions_Re) (required)  [No Hemovigilance Incidents Reported This Month Observation](#E_No_Hemovigilance_Incidents_Reported_T) (required)  [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) (required) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The Summary Data Section (HV) extends its generic equivalent but is specific to the HAI Hemovigilance (HV) Summary Report.

Table 128: Summary Data Section (HV) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3247-30615](#C_3247-30615) |  |
| @root | 1..1 | SHALL |  | [3247-30619](#C_3247-30619) | 2.16.840.1.113883.10.20.5.5.57 |
| @extension | 1..1 | SHALL |  | [3247-30620](#C_3247-30620) | 2016-08-01 |
| code | 1..1 | SHALL |  | [3247-30616](#C_3247-30616) |  |
| @code | 1..1 | SHALL |  | [3247-30621](#C_3247-30621) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [3247-30622](#C_3247-30622) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..1 | SHALL |  | [3247-30614](#C_3247-30614) |  |
| observation | 1..1 | SHALL |  | [3247-30685](#C_3247-30685) | [No Hemovigilance Adverse Reactions Reported This Month Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01](#E_No_Hemovigilance_Adverse_Reactions_Re) |
| entry | 1..\* | SHALL |  | [3247-30617](#C_3247-30617) |  |
| observation | 1..1 | SHALL |  | [3247-30686](#C_3247-30686) | [No Hemovigilance Incidents Reported This Month Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01](#E_No_Hemovigilance_Incidents_Reported_T) |
| entry | 1..\* | SHALL |  | [3247-30736](#C_3247-30736) |  |
| encounter | 1..1 | SHALL |  | [3247-30737](#C_3247-30737) | [Summary Encounter (HV) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01](#E_Summary_Encounter_HV_V2) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3247-30615) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.57" (CONF:3247-30619).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30620).
3. SHALL contain exactly one [1..1] code (CONF:3247-30616).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:3247-30621).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3247-30622).
4. SHALL contain exactly one [1..1] entry (CONF:3247-30614) such that it
   1. SHALL contain exactly one [1..1] [No Hemovigilance Adverse Reactions Reported This Month Observation](#E_No_Hemovigilance_Adverse_Reactions_Re) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01) (CONF:3247-30685).
5. SHALL contain at least one [1..\*] entry (CONF:3247-30617) such that it
   1. SHALL contain exactly one [1..1] [No Hemovigilance Incidents Reported This Month Observation](#E_No_Hemovigilance_Incidents_Reported_T) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01) (CONF:3247-30686).
6. SHALL contain at least one [1..\*] entry (CONF:3247-30736) such that it
   1. SHALL contain exactly one [1..1] [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01) (CONF:3247-30737).

Figure 37: Summary Data Section (HV) (V2) Example

<section>

<!-- [HAI R1] HAI Section Generic Constraints -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- [HAI R3D1.1] Summary Data Section (HV) (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.5.57"

extension="2016-08-01" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" code="51900-9"

displayName="Summary Data Section" />

<title>Summary Data</title>

<text>...</text>

<entry typeCode="DRIV">

<!-- No Adverse Reactions Reported This Month Observation -->

<observation classCode="OBS" moodCode="EVN"

negationInd="false">

<!-- [HAI R3D1] No Adverse Reactions Reported This Month Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.232"

extension="2015-10-01"

/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<!-- No Incidents Reported This Month Observation -->

<observation classCode="OBS" moodCode="EVN"

negationInd="true">

<!-- [HAI R3D1] No Incidents Reported This Month Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.233"

extension="2015-10-01"

/>

...

</observation>

</entry>

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3D1.1] Summary Encounter (HV) (V2)-->

<templateId root="2.16.840.1.113883.10.20.5.6.234"

extension="2016-08-01" />

...

</encounter>

</entry>

</section>

Summary Data Section (NICU) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01 (closed)]

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Table 129: Summary Data Section (NICU) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Neonatal Intensive Care Unit (NICU) Summary Report (V3)](#D_Neonatal_Intensive_Care_Unit_NICU_V3) (required) | [Summary Encounter (NICU)](#E_Summary_Encounter_NICU) (required) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The NICU Report extends the simple pattern for Summary Encounter. This report is stratified by birth weight. Each category is recorded in a separate Summary Encounter (NICU) within the Summary Data Section (NICU). The category is recorded as a participant in the encounter, in addition to the location participant that is required in all Summary Encounters.

Table 130: Summary Data Section (NICU) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01) | | | | | |
| templateId | 1..1 | SHALL |  | [3357-22837](#C_3357-22837) |  |
| @root | 1..1 | SHALL |  | [3357-22838](#C_3357-22838) | 2.16.840.1.113883.10.20.5.5.48 |
| @extension | 1..1 | SHALL |  | [3357-30598](#C_3357-30598) | 2018-04-01 |
| code | 1..1 | SHALL |  | [3357-22839](#C_3357-22839) |  |
| @code | 1..1 | SHALL |  | [3357-22840](#C_3357-22840) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [3357-28368](#C_3357-28368) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..\* | SHALL |  | [3357-22841](#C_3357-22841) |  |
| encounter | 1..1 | SHALL |  | [3357-22842](#C_3357-22842) | [Summary Encounter (NICU) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.191](#E_Summary_Encounter_NICU) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-22837) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.48" (CONF:3357-22838).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30598).
3. SHALL contain exactly one [1..1] code (CONF:3357-22839).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:3357-22840).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3357-28368).
4. SHALL contain at least one [1..\*] entry (CONF:3357-22841) such that it
   1. SHALL contain exactly one [1..1] [Summary Encounter (NICU)](#E_Summary_Encounter_NICU) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.191) (CONF:3357-22842).

Figure 38: Summary Data Section (NICU) Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Summary Data Section (NICU) template -->

<templateId root="2.16.840.1.113883.10.20.5.5.48"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51900-9"

displayName="Summary Data Section"/>

...

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- HAI Summary Encounter (NICU) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.191"/>

...

</encounter>

</entry>

</section>

Summary Data Section (POM) (V2)

[section: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2014-12-01 (closed)]

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Table 131: Summary Data Section (POM) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Prevention Process and Outcome Measures (POM) Summary Report (V3)](#D_Prevention_Process_and_Outcome_V3) (required) | [Summary Encounter (POM)](#E_Summary_Encounter_POM) (required)  [Primary C. Difficile Testing Method This Quarter](#E_Primary_C_Difficile_Testing_Method_Th) (optional) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.

The POM Summary report typically reports data for an in-facility location, but under some circumstances the NHSN protocol also requires facility-wide data. Use one Summary Encounter (POM) to report the data for the in-facility location and a separate Summary Encounter (POM) to report the facility-wide data. For facility-wide reporting, at the end of each quarter, the NHSN protocol requires the primary C. difficile testing method used most often.

Table 132: Summary Data Section (POM) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2014-12-01) | | | | | |
| templateId | 1..1 | SHALL |  | [1129-22880](#C_1129-22880) |  |
| @root | 1..1 | SHALL |  | [1129-22881](#C_1129-22881) | 2.16.840.1.113883.10.20.5.5.49 |
| @extension | 1..1 | SHALL |  | [1129-30477](#C_1129-30477) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-22882](#C_1129-22882) |  |
| @code | 1..1 | SHALL |  | [1129-22883](#C_1129-22883) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [1129-30602](#C_1129-30602) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..\* | SHALL |  | [1129-22884](#C_1129-22884) |  |
| encounter | 1..1 | SHALL |  | [1129-22885](#C_1129-22885) | [Summary Encounter (POM) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.193](#E_Summary_Encounter_POM) |
| entry | 0..1 | SHOULD |  | [1129-30333](#C_1129-30333) |  |
| observation | 1..1 | SHALL |  | [1129-30334](#C_1129-30334) | [Primary C. Difficile Testing Method This Quarter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01](#E_Primary_C_Difficile_Testing_Method_Th) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-22880) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.49" (CONF:1129-22881).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30477).
3. SHALL contain exactly one [1..1] code (CONF:1129-22882).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:1129-22883).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30602).
4. SHALL contain at least one [1..\*] entry (CONF:1129-22884) such that it
   1. SHALL contain exactly one [1..1] [Summary Encounter (POM)](#E_Summary_Encounter_POM) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.193) (CONF:1129-22885).

Required per NHSN Protocol only if location is facility-wide and month is March, June, September, or December.

1. SHOULD contain zero or one [0..1] entry (CONF:1129-30333) such that it
   1. SHALL contain exactly one [1..1] [Primary C. Difficile Testing Method This Quarter](#E_Primary_C_Difficile_Testing_Method_Th) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01) (CONF:1129-30334).

Figure 39: Summary Data Section (POM) (V2) Example

<section>

<!-- HAI Section Generic Constraints templateId -->

<templateId root="2.16.840.1.113883.10.20.5.4.26" />

<!-- Summary Data Section (POM) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.5.49"

extension="2014-12-01"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51900-9"

displayName="Summary Data Section"/>

<title>Summary Data</title>

<text>

...

</text>

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- Summary Encounter (POM) -->

<templateId root="2.16.840.1.113883.10.20.5.6.193"/>

...

</encounter>

</entry>

<entry typeCode="DRIV">

<observation classCode="OBS" moodCode="EVN">

<!-- Primary C. Difficile Testing Method This Quarter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.221"

extension="2014-12-01"/>

...

</observation>

</entry>

</section>

Summary Data Section (VAT)

[section: identifier urn:oid:2.16.840.1.113883.10.20.5.5.50 (closed)]

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Table 133: Summary Data Section (VAT) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Vascular Access Type Report (VAT) Summary Report (V3)](#D_Vascular_Access_Type_Report_VAT_V3) (required) | [Summary Encounter (VAT)](#E_Summary_Encounter_VAT) (required) |

The Summary Data Section is used in a population summary report. The specific counts to be reported in the Summary Data Section vary by report topic, but the section itself conveys the same kind of information wherever used; therefore, the section is represented by the same LOINC section code whatever the data reported.  
The Summary Data Section (VAT) extends its generic equivalent but, is specific to the Vascular Access Type Report (VAT) Summary Report.

Table 134: Summary Data Section (VAT) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| section (identifier: urn:oid:2.16.840.1.113883.10.20.5.5.50) | | | | | |
| templateId | 1..1 | SHALL |  | [86-22945](#C_86-22945) |  |
| @root | 1..1 | SHALL |  | [86-22946](#C_86-22946) | 2.16.840.1.113883.10.20.5.5.50 |
| code | 1..1 | SHALL |  | [86-22947](#C_86-22947) |  |
| @code | 1..1 | SHALL |  | [86-22948](#C_86-22948) | 51900-9 |
| @codeSystem | 1..1 | SHALL |  | [86-28369](#C_86-28369) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| entry | 1..\* | SHALL |  | [86-22949](#C_86-22949) |  |
| encounter | 1..1 | SHALL |  | [86-22950](#C_86-22950) | [Summary Encounter (VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.196](#E_Summary_Encounter_VAT) |

1. Conforms to [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) template (identifier: urn:oid:2.16.840.1.113883.10.20.5.4.26).
2. SHALL contain exactly one [1..1] templateId (CONF:86-22945) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.5.50" (CONF:86-22946).
3. SHALL contain exactly one [1..1] code (CONF:86-22947).
   1. This code SHALL contain exactly one [1..1] @code="51900-9" Summary Data Section (CONF:86-22948).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-28369).
4. SHALL contain at least one [1..\*] entry (CONF:86-22949).
   1. Such entries SHALL contain exactly one [1..1] [Summary Encounter (VAT)](#E_Summary_Encounter_VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.196) (CONF:86-22950).

Figure 40: Summary Data Section (VAT) Example

<section>

<!-- HAI Generic Section template -->

< templateId root="2.16.840.1.113883.10.20.5.4.26"/>

<!-- HAI Summary Data Section (VAT) template -->

<templateId root="2.16.840.1.113883.10.20.5.5.50"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="51900-9"

displayName="Summary Data Section"/>

...

<entry typeCode="DRIV">

<encounter classCode="ENC" moodCode="EVN">

<!-- HAI Summary Encounter (VAT) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.196"/>

...

</encounter>

</entry>

</section>

# Entry-Level Templates

Anesthesia Administration Clinical Statement

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.5.6.112 (closed)]

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Table 135: Anesthesia Administration Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Clinical Statement in a Procedure Report (V2)](#Procedure_Details_Clinical_Statement_in) (required)  [Procedure Details in an OPC Denominator for Procedure](#E_Procedure_Details_in_an_OPC_Denominat) (required) |  |

This clinical statement reports whether anesthesia was administered.

If anesthesia was not administered, set the value of @negationInd to true. If anesthesia was administered, set the value of @negationInd to false.

Table 136: Anesthesia Administration Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19560](#C_86-19560) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [86-19561](#C_86-19561) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19562](#C_86-19562) |  |
| templateId | 1..1 | SHALL |  | [86-28201](#C_86-28201) |  |
| @root | 1..1 | SHALL |  | [86-28202](#C_86-28202) | 2.16.840.1.113883.10.20.22.4.16 |
| templateId | 1..1 | SHALL |  | [86-19570](#C_86-19570) |  |
| @root | 1..1 | SHALL |  | [86-19571](#C_86-19571) | 2.16.840.1.113883.10.20.5.6.112 |
| id | 1..1 | SHALL |  | [86-19572](#C_86-19572) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22720](#C_86-22720) | NA |
| statusCode | 1..1 | SHALL |  | [86-19573](#C_86-19573) |  |
| @code | 1..1 | SHALL |  | [86-19574](#C_86-19574) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [86-28331](#C_86-28331) |  |
| low | 1..1 | SHALL |  | [86-28332](#C_86-28332) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-28335](#C_86-28335) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| high | 1..1 | SHALL |  | [86-28333](#C_86-28333) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-28336](#C_86-28336) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| consumable | 1..1 | SHALL |  | [86-19563](#C_86-19563) |  |
| manufacturedProduct | 1..1 | SHALL |  | [86-19578](#C_86-19578) |  |
| @classCode | 1..1 | SHALL |  | [86-28349](#C_86-28349) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [86-28334](#C_86-28334) |  |
| @root | 1..1 | SHALL |  | [86-28337](#C_86-28337) | 2.16.840.1.113883.10.20.22.4.23 |
| manufacturedMaterial | 1..1 | SHALL |  | [86-19579](#C_86-19579) |  |
| code | 1..1 | SHALL |  | [86-19580](#C_86-19580) |  |
| @code | 1..1 | SHALL |  | [86-19581](#C_86-19581) | 84451006 |
| @codeSystem | 1..1 | SHALL |  | [86-19582](#C_86-19582) | 2.16.840.1.113883.6.96 |

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. SHALL contain exactly one [1..1] @classCode="SBADM" Substance administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19560).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19561).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-19562).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28201) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:86-28202).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19570) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.112" (CONF:86-19571).
7. SHALL contain exactly one [1..1] id (CONF:86-19572).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22720).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-19573).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-19574).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-28331).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-28332).
      1. This low SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-28335).
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:86-28333).
      1. This high SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-28336).
10. SHALL contain exactly one [1..1] consumable (CONF:86-19563).
    1. This consumable SHALL contain exactly one [1..1] manufacturedProduct (CONF:86-19578).
       1. This manufacturedProduct SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:86-28349).
       2. This manufacturedProduct SHALL contain exactly one [1..1] templateId (CONF:86-28334) such that it
          1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.23" (CONF:86-28337).
       3. This manufacturedProduct SHALL contain exactly one [1..1] manufacturedMaterial (CONF:86-19579).
          1. This manufacturedMaterial SHALL contain exactly one [1..1] code (CONF:86-19580).
             1. This code SHALL contain exactly one [1..1] @code="84451006" General Anesthesia (CONF:86-19581).
             2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CONF:86-19582).

Figure 41: Anesthesia Administration Clinical Statement Example

<substanceAdministration classCode="SBADM" moodCode="EVN"

negationInd="false">

<!-- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" />

<!-- HAI Anesthesia Administration Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.112" />

<id nullFlavor="NA" />

<statusCode code="completed" />

<effectiveTime xsi:type="IVL\_TS">

<low nullFlavor="NA" />

<high nullFlavor="NA" />

</effectiveTime>

<consumable>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" />

<manufacturedMaterial>

<code codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="84451006"

displayName="General anesthesia" />

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

</substanceAdministration>

Antimicrobial Coated Catheter Used Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01 (closed)]

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Table 137: Antimicrobial Coated Catheter Used Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a CLIP Report (V2)](#S_Infection_Risk_Factors_Section_in_a_C) (optional) |  |

This clinical statement represents whether an antimicrobial coated catheter was used.

If an antimicrobial coated catheter was used, set the value of @negationInd to false. If an antimicrobial coated catheter was not used, set the value of @negationInd to true.

Table 138: Antimicrobial Coated Catheter Used Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-28205](#C_1129-28205) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-28206](#C_1129-28206) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [1129-28207](#C_1129-28207) |  |
| templateId | 1..1 | SHALL |  | [1129-30485](#C_1129-30485) |  |
| @root | 1..1 | SHALL |  | [1129-30486](#C_1129-30486) | 2.16.840.1.113883.10.20.5.6.217 |
| @extension | 1..1 | SHALL |  | [1129-30487](#C_1129-30487) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-28202](#C_1129-28202) |  |
| @code | 1..1 | SHALL | CS | [1129-28210](#C_1129-28210) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1129-30597](#C_1129-30597) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1129-28203](#C_1129-28203) |  |
| @code | 1..1 | SHALL |  | [1129-28211](#C_1129-28211) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1129-28204](#C_1129-28204) |  |
| @code | 1..1 | SHALL |  | [1129-28212](#C_1129-28212) | 6140-8 |
| @codeSystem | 1..1 | SHALL |  | [1129-30607](#C_1129-30607) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-28205).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-28206).

If an antimicrobial coated catheter was used, set the value of @negationInd to false. If an antimicrobial coated catheter was not used set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:1129-28207).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-30485) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.217" (CONF:1129-30486).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30487).
3. SHALL contain exactly one [1..1] code (CONF:1129-28202).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1129-28210).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30597).
4. SHALL contain exactly one [1..1] statusCode (CONF:1129-28203).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-28211).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1129-28204).
   1. This value SHALL contain exactly one [1..1] @code="6140-8" Antimicrobial coated catheter used (CONF:1129-28212).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30607).

Figure 42: Antimicrobial Coated Catheter Used Observation Example

<!-- Setting negationInd="false" indicates that an antimicrobial coated

catheter was used -->

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- Antimicrobial Coated Catheter Used Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.217"

extension="2014-12-01"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" code="6140-8"

displayName="Antimicrobial coated catheter used" />

</observation>

Antimicrobial Susceptibility Antibiotic

[participant: identifier urn:oid:2.16.840.1.113883.10.20.5.6.176 (closed)]

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This clinical statement represents the antimicrobial agent for which susceptibilities are reported against a certain pathogen. The antimicrobial agent is specified in the participant/participantRole/playingEntity/code element.

Table 139: Antimicrobial Susceptibility Antibiotic Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| participant (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.176) | | | | | |
| @typeCode | 1..1 | SHALL |  | [86-27113](#C_86-27113) | SBJ |
| templateId | 1..1 | SHALL |  | [86-21084](#C_86-21084) |  |
| @root | 1..1 | SHALL |  | [86-21085](#C_86-21085) | 2.16.840.1.113883.10.20.5.6.176 |
| participantRole | 1..1 | SHALL |  | [86-27114](#C_86-27114) |  |
| @classCode | 0..1 | MAY |  | [86-27115](#C_86-27115) | MANU |
| playingEntity | 1..1 | SHALL |  | [86-27116](#C_86-27116) |  |
| code | 1..1 | SHALL |  | [86-27117](#C_86-27117) | urn:oid:2.16.840.1.114222.4.11.3360 (NHSNAntimicrobialAgentAURPCode) |

1. SHALL contain exactly one [1..1] @typeCode="SBJ" (CONF:86-27113).
2. SHALL contain exactly one [1..1] templateId (CONF:86-21084) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.176" (CONF:86-21085).
3. SHALL contain exactly one [1..1] participantRole (CONF:86-27114).
   1. This participantRole MAY contain zero or one [0..1] @classCode="MANU" (CONF:86-27115).
   2. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:86-27116).
      1. This playingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNAntimicrobialAgentAURPCode](#NHSNAntimicrobialAgentAURPCode) urn:oid:2.16.840.1.114222.4.11.3360 DYNAMIC (CONF:86-27117).

Table 140: NHSNAntimicrobialAgentAURPCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNAntimicrobialAgentAURPCode urn:oid:2.16.840.1.114222.4.11.3360  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the antimicrobial agent.),(Data Element Scope: An enity code representing the antimicrobial agent for which susceptibilities are reported against a certain pathogen.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3360/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1009148 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | ampicillin / sulbactam |
| 10109 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | streptomycin |
| 10207 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | sulfisoxazole |
| 10395 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | tetracycline |
| 1040005 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | ceftaroline |
| 10591 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | ticarcillin |
| 10612 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | tinidazole |
| 10627 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | tobramycin |
| 10829 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | trimethoprim |
| 10831 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | sulfamethoxazole / trimethoprim |
| ... | | | |

Figure 43: Antimicrobial Susceptibility Antibiotic Example

<!-- This participant specifies the antibiotic tested -->

<participant typeCode="SBJ">

<!-- Antimicrobial Susceptibility Antibiotic -->

<templateId root="2.16.840.1.113883.10.20.5.6.176" />

<participantRole classCode="MANU">

<playingEntity>

<code code="21212"

displayName="Clarithromycin"

codeSystemName="RxNorm"

codeSystem="2.16.840.1.113883.6.88"/>

</playingEntity>

</participantRole>

</participant>

Antimicrobial Susceptibility Final Interpretation Result

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.175 (closed)]

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Table 141: Antimicrobial Susceptibility Final Interpretation Result Contexts

| Contained By: | Contains: |
| --- | --- |
| [Antimicrobial Susceptibility Tests Organizer (V3)](#E_Antimicrobial_Susceptibility_Tests_Or) (required) |  |

This clinical statement represents the final susceptibility result of a cluster of antimicrobial susceptibility tests performed on one pathogen-drug combination. Although several tests performed on one pathogen using the same antimicrobial agent may yield conflicting results, this clinical statement provides the final and definitive susceptibility testing result.

Table 142: Antimicrobial Susceptibility Final Interpretation Result Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.175) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21067](#C_86-21067) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21068](#C_86-21068) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28203](#C_86-28203) |  |
| @root | 1..1 | SHALL |  | [86-28204](#C_86-28204) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [86-21071](#C_86-21071) |  |
| @root | 1..1 | SHALL |  | [86-21072](#C_86-21072) | 2.16.840.1.113883.10.20.5.6.175 |
| id | 1..1 | SHALL |  | [86-21069](#C_86-21069) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-21070](#C_86-21070) | NA |
| code | 1..1 | SHALL |  | [86-21075](#C_86-21075) |  |
| @code | 1..1 | SHALL |  | [86-28099](#C_86-28099) | 365705006 |
| @codeSystem | 1..1 | SHALL |  | [86-28100](#C_86-28100) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [86-21076](#C_86-21076) |  |
| @code | 1..1 | SHALL |  | [86-21077](#C_86-21077) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-21078](#C_86-21078) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22630](#C_86-22630) | NA |
| value | 1..1 | SHALL | CD | [86-21079](#C_86-21079) | urn:oid:2.16.840.1.113883.13.13 (NHSNDrugSusceptibilityFindingCode) |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-21067).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-21068).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28203) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:86-28204).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21071) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.175" (CONF:86-21072).
6. SHALL contain exactly one [1..1] id (CONF:86-21069).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-21070).
7. SHALL contain exactly one [1..1] code (CONF:86-21075).
   1. This code SHALL contain exactly one [1..1] @code="365705006" Final Interpretation Result (CONF:86-28099).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28100).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-21076).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-21077).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21078).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22630).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNDrugSusceptibilityFindingCode](#NHSNDrugSusceptibilityFindingCode) urn:oid:2.16.840.1.113883.13.13 DYNAMIC (CONF:86-21079).

Table 143: NHSNDrugSusceptibilityFindingCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNDrugSusceptibilityFindingCode urn:oid:2.16.840.1.113883.13.13  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the drug susceptibility finding.),(Data Element Scope: A coded observation value representing the type of drug susceptibility finding.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/15/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.13/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| I | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Intermediate |
| NS | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Non-susceptible |
| R | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Resistant |
| S | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Susceptible |
| SDD | ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 | Susceptible-dose dependent |

Figure 44: Antimicrobial Susceptibility Final Interpretation Result Example

<!-- This observation specifies the Final Interpretation Result -->

<observation classCode="OBS" moodCode="EVN">

<!-- Antimicrobial Susceptibility Final Interpretation Result -->

<templateId root="2.16.840.1.113883.10.20.5.6.175" />

<!-- Consolidated CDA Result Observation template -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<id nullFlavor="NA" />

<code code="365705006"

displayName="Final Interpretation Result"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" />

<statusCode code="completed" />

<effectiveTime nullFlavor="NA" />

<value xsi:type="CD" codeSystem="2.16.840.1.113883.5.83"

codeSystemName="HL7 Observation Interpretation"

code="R"

displayName="Resistant" />

</observation>

Antimicrobial Susceptibility Isolate Participant (V2)

[participant: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01 (closed)]

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Table 144: Antimicrobial Susceptibility Isolate Participant (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Isolate Susceptibility Tests Organizer (V4)](#E_Isolate_Susceptibility_Tests_Org_V4) (required) |  |

This template identifies an isolate for the purpose of antimicrobial susceptibility testing.

Table 145: Antimicrobial Susceptibility Isolate Participant (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| participant (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01) | | | | | |
| @typeCode | 1..1 | SHALL |  | [4459-27150](#C_4459-27150) | SBJ |
| templateId | 1..1 | SHALL |  | [4459-27137](#C_4459-27137) |  |
| @root | 1..1 | SHALL |  | [4459-27138](#C_4459-27138) | 2.16.840.1.113883.10.20.5.6.202 |
| @extension | 1..1 | SHALL |  | [4459-30799](#C_4459-30799) | 2020-04-01 |
| participantRole | 1..1 | SHALL |  | [4459-27151](#C_4459-27151) |  |
| @classCode | 1..1 | SHALL |  | [4459-27152](#C_4459-27152) | ISLT |
| id | 1..\* | SHALL |  | [4459-27153](#C_4459-27153) |  |
| playingEntity | 1..1 | SHALL |  | [4459-27154](#C_4459-27154) |  |
| code | 1..1 | SHALL |  | [4459-27155](#C_4459-27155) | urn:oid:2.16.840.1.113762.1.4.1190.6 (NHSNPathogenCodeARO) |

1. SHALL contain exactly one [1..1] @typeCode="SBJ" (CONF:4459-27150).
2. SHALL contain exactly one [1..1] templateId (CONF:4459-27137) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.202" (CONF:4459-27138).
   2. SHALL contain exactly one [1..1] @extension="2020-04-01" (CONF:4459-30799).
3. SHALL contain exactly one [1..1] participantRole (CONF:4459-27151).
   1. This participantRole SHALL contain exactly one [1..1] @classCode="ISLT" (CONF:4459-27152).

This is the unique isolate identifier

* 1. This participantRole SHALL contain at least one [1..\*] id (CONF:4459-27153).
  2. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:4459-27154).
     1. This playingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNPathogenCodeARO](#NHSNPathogenCodeARO) urn:oid:2.16.840.1.113762.1.4.1190.6 DYNAMIC (CONF:4459-27155).

Table 146: NHSNPathogenCodeARO

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNPathogenCodeARO urn:oid:2.16.840.1.113762.1.4.1190.6  (Clinical Focus: NHSN Surveillance - Antibiotic Resistance Option),(Data Element Scope: Pathogens eligible for NHSN ARO reporting),(Inclusion Criteria: ),(Exclusion Criteria: )  Note: Steward Expansion Version 20210514 corresponds to ARO Pathogen subset of Pathogen Codes 2021 from idm-vendors-9.5.xlsx  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.6/expansion/20210514> | | | |
| Code | Code System | Code System OID | Print Name |
| 10262005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Enterococcus malodoratus (organism) |
| 103429008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Enterohemorrhagic Escherichia coli, serotype O157:H7 (organism) |
| 103436009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Enterococcus pseudoavium (organism) |
| 103437000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Enterococcus raffinosus (organism) |
| 103438005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Enterococcus saccharolyticus (organism) |
| 112283007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Escherichia coli (organism) |
| 113376007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Acinetobacter calcoaceticus-Acinetobacter baumannii complex (organism) |
| 113381003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Acinetobacter radioresistens (organism) |
| 113697002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Stenotrophomonas maltophilia (organism) |
| 113722005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Enterococcus cecorum (organism) |
| ... | | | |

Figure 45: Antimicrobial Susceptibility Isolate Participant (V2) Example

<participant typeCode="SBJ">

<!-- [HAI R3N1] Antimicrobial Susceptibility Isolate Participant (V2) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.202" extension="2020-04-01" />

<participantRole classCode="ISLT">

<!-- Isolate identifier - unique for each isolate in that year –->

<id root="8d7ebcf7-528e-48e8-9e04-350b11b591d1" extension="125698523"/>

<playingEntity>

<code code="3092008"

displayName="Staphylococcus aureus"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"/>

</playingEntity>

</participantRole>

</participant>

Antimicrobial Susceptibility Result Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, DSTU 1.1 - US Realm

Table 147: Antimicrobial Susceptibility Result Observation (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Antimicrobial Susceptibility Result Organizer (V3)](#E_Antimicrobial_Susceptibility_Result_O) (required) |  |

This clinical statement represents the result of one discrete susceptibility test. The type of test is recorded in the code element. The test method is recorded in the methodCode. The susceptibility result of that test is recorded in the interpretationCode element. The numeric result of that test is recorded in the value element as an inequality. The numeric component is recorded in the value/.../@value attribute. The unit of measure is recorded in the value/.../@unit attribute. The inequality is recorded in the value/low and value/high and value/center elements. For example:

Greater than 0.5 mg/ul

Greater than or equal to 0.9 mg/ul

Less than 0.7 mg/ul

Less than or equal to 0.4 mg/ul

Exactly equal to 0.2 mg/ul

Table 148: Antimicrobial Susceptibility Result Observation (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-22632](#C_3247-22632) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3247-22633](#C_3247-22633) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3247-22699](#C_3247-22699) |  |
| templateId | 1..1 | SHALL |  | [3247-30551](#C_3247-30551) |  |
| @root | 1..1 | SHALL |  | [3247-30552](#C_3247-30552) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [3247-22634](#C_3247-22634) |  |
| @root | 1..1 | SHALL |  | [3247-22635](#C_3247-22635) | 2.16.840.1.113883.10.20.5.6.186 |
| @extension | 1..1 | SHALL |  | [3247-30553](#C_3247-30553) | 2016-08-01 |
| id | 1..1 | SHALL |  | [3247-22636](#C_3247-22636) |  |
| @nullFlavor | 1..1 | SHALL |  | [3247-22637](#C_3247-22637) | NA |
| code | 1..1 | SHALL |  | [3247-22638](#C_3247-22638) | urn:oid:2.16.840.1.113883.13.15 (NHSNDrugSusceptibilityTestsCode) |
| statusCode | 1..1 | SHALL |  | [3247-22639](#C_3247-22639) |  |
| @code | 1..1 | SHALL |  | [3247-22640](#C_3247-22640) | completed |
| effectiveTime | 1..1 | SHALL |  | [3247-22641](#C_3247-22641) |  |
| @nullFlavor | 1..1 | SHALL |  | [3247-22642](#C_3247-22642) | NA |
| value | 1..1 | SHALL | IVL\_PQ | [3247-22643](#C_3247-22643) |  |
| low | 0..1 | MAY |  | [3247-22644](#C_3247-22644) |  |
| @value | 0..1 | MAY |  | [3247-23095](#C_3247-23095) |  |
| @unit | 0..1 | MAY |  | [3247-23096](#C_3247-23096) |  |
| @inclusive | 0..1 | MAY | BL | [3247-22645](#C_3247-22645) |  |
| high | 0..1 | MAY |  | [3247-22646](#C_3247-22646) |  |
| @value | 0..1 | MAY |  | [3247-23097](#C_3247-23097) |  |
| @unit | 0..1 | MAY |  | [3247-23098](#C_3247-23098) |  |
| @inclusive | 0..1 | MAY |  | [3247-22647](#C_3247-22647) |  |
| center | 0..1 | MAY |  | [3247-22648](#C_3247-22648) |  |
| @value | 0..1 | MAY |  | [3247-23099](#C_3247-23099) |  |
| @unit | 0..1 | MAY |  | [3247-23100](#C_3247-23100) |  |
| @nullFlavor | 0..1 | MAY |  | [3247-23366](#C_3247-23366) |  |
| interpretationCode | 1..1 | SHALL |  | [3247-23101](#C_3247-23101) | urn:oid:2.16.840.1.113883.13.13 (NHSNDrugSusceptibilityFindingCode) |
| methodCode | 1..1 | SHALL |  | [3247-30599](#C_3247-30599) |  |
| @code | 1..1 | SHALL |  | [3247-30602](#C_3247-30602) | urn:oid:2.16.840.1.113883.10.20.5.9.4 (NHSNDrugSusceptibilityTestMethod) |
| @codeSystem | 1..1 | SHALL |  | [3247-30603](#C_3247-30603) |  |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-22632).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-22633).
4. SHALL contain exactly one [1..1] @negationInd (CONF:3247-22699).
5. SHALL contain exactly one [1..1] templateId (CONF:3247-30551) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:3247-30552).
6. SHALL contain exactly one [1..1] templateId (CONF:3247-22634) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.186" (CONF:3247-22635).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30553).
7. SHALL contain exactly one [1..1] id (CONF:3247-22636).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3247-22637).
8. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [NHSNDrugSusceptibilityTestsCode](#NHSNDrugSusceptibilityTestsCode) urn:oid:2.16.840.1.113883.13.15 DYNAMIC (CONF:3247-22638).
9. SHALL contain exactly one [1..1] statusCode (CONF:3247-22639).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CONF:3247-22640).
10. SHALL contain exactly one [1..1] effectiveTime (CONF:3247-22641).
    1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3247-22642).
11. SHALL contain exactly one [1..1] value with @xsi:type="IVL\_PQ" (CONF:3247-22643).
    1. This value MAY contain zero or one [0..1] low (CONF:3247-22644).
       1. The low, if present, MAY contain zero or one [0..1] @value (CONF:3247-23095).
       2. The low, if present, MAY contain zero or one [0..1] @unit (CONF:3247-23096).
       3. The low, if present, MAY contain zero or one [0..1] @inclusive (CONF:3247-22645).
    2. This value MAY contain zero or one [0..1] high (CONF:3247-22646).
       1. The high, if present, MAY contain zero or one [0..1] @value (CONF:3247-23097).
       2. The high, if present, MAY contain zero or one [0..1] @unit (CONF:3247-23098).
       3. The high, if present, MAY contain zero or one [0..1] @inclusive (CONF:3247-22647).
    3. This value MAY contain zero or one [0..1] center (CONF:3247-22648).
       1. The center, if present, MAY contain zero or one [0..1] @value (CONF:3247-23099).
       2. The center, if present, MAY contain zero or one [0..1] @unit (CONF:3247-23100).
    4. This value MAY contain zero or one [0..1] @nullFlavor (CONF:3247-23366).
12. SHALL contain exactly one [1..1] interpretationCode, which SHOULD be selected from ValueSet [NHSNDrugSusceptibilityFindingCode](#NHSNDrugSusceptibilityFindingCode) urn:oid:2.16.840.1.113883.13.13 DYNAMIC (CONF:3247-23101).
13. SHALL contain exactly one [1..1] methodCode (CONF:3247-30599).
    1. This methodCode SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSNDrugSusceptibilityTestMethod](#NHSNDrugSusceptibilityTestMethod) urn:oid:2.16.840.1.113883.10.20.5.9.4 DYNAMIC (CONF:3247-30602).
    2. This methodCode SHALL contain exactly one [1..1] @codeSystem (CONF:3247-30603).

Table 149: NHSNDrugSusceptibilityTestsCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNDrugSusceptibilityTestsCode urn:oid:2.16.840.1.113883.13.15  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the drug susceptibility test.),(Data Element Scope: Code identifying the type of drug susceptibility observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.15/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 18855-7 | LOINC | urn:oid:2.16.840.1.113883.6.1 | 5-Fluorocytosine [Susceptibility] |
| 18860-7 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Amikacin [Susceptibility] |
| 18861-5 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Amoxicillin [Susceptibility] |
| 18862-3 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Amoxicillin+Clavulanate [Susceptibility] |
| 18864-9 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Ampicillin [Susceptibility] |
| 18865-6 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Ampicillin+Sulbactam [Susceptibility] |
| 18866-4 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Azithromycin [Susceptibility] |
| 18868-0 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Aztreonam [Susceptibility] |
| 18878-9 | LOINC | urn:oid:2.16.840.1.113883.6.1 | ceFAZolin [Susceptibility] |
| 18879-7 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Cefepime [Susceptibility] |
| ... | | | |

Table 150: NHSNDrugSusceptibilityTestMethod

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNDrugSusceptibilityTestMethod urn:oid:2.16.840.1.113883.10.20.5.9.4  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the drug susceptibility test method.),(Data Element Scope: Code identifying the type of drug susceptibility observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.4/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 49589-5 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Bacterial susceptibility panel by Gradient strip |
| 50545-3 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Bacterial susceptibility panel by Minimum inhibitory concentration (MIC) |
| 50546-1 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Bacterial susceptibility panel by Disk diffusion (KB) |

Figure 46: Antimicrobial Susceptibility Result Observation (V3)

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" />

<id nullFlavor="NA" />

<code code="18907-6"

displayName="Clarithro Susc Islt"

codeSystemName="LOINC"

codeSystem="2.16.840.1.113883.6.1" />

<statusCode code="completed" />

<effectiveTime nullFlavor="NA" />

<value xsi:type="IVL\_PQ">

<low value="5.0" unit="ug/ml" />

</value>

<interpretationCode codeSystem="2.16.840.1.113883.5.83"

codeSystemName="HL7 Observation Interpretation"

code="R"

displayName="Resistant" />

<methodCode codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="49589-5"

displayName="Bacterial susceptibility panel by Gradient strip (E-test)" />

</observation>

Figure 47: Antimicrobial Susceptibility Result Observation (V3) - Not Done

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" />

<id nullFlavor="NA" />

<code code="18907-6"

displayName="Clarithro Susc Islt"

codeSystemName="LOINC"

codeSystem="2.16.840.1.113883.6.1" />

<statusCode code="completed" />

<effectiveTime nullFlavor="NA" />

<value xsi:type="IVL\_PQ" nullFlavor="NA" />

<interpretationCode nullFlavor="NA" />

<methodCode codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="50546-1"

displayName="Bacterial susceptibility panel by Disk diffusion (KB)" />

</observation>

Antimicrobial Susceptibility Result Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01 (closed)]

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Table 151: Antimicrobial Susceptibility Result Organizer (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Antimicrobial Susceptibility Tests Organizer (V3)](#E_Antimicrobial_Susceptibility_Tests_Or) (required) | [Antimicrobial Susceptibility Result Observation (V3)](#E_Antimicrobial_Susceptibility_Res_Obs) (required) |

This organizer groups a battery of antimicrobial susceptibility tests. Each drug tested must have an observation for each method in the value set NHSNDrugSusceptibilityTestMethod.

Table 152: Antimicrobial Susceptibility Result Organizer (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-27103](#C_3247-27103) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = BATTERY |
| @moodCode | 1..1 | SHALL |  | [3247-27104](#C_3247-27104) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3247-30554](#C_3247-30554) |  |
| @root | 1..1 | SHALL |  | [3247-28208](#C_3247-28208) | 2.16.840.1.113883.10.20.22.4.1 |
| templateId | 1..1 | SHALL |  | [3247-27105](#C_3247-27105) |  |
| @root | 1..1 | SHALL |  | [3247-27106](#C_3247-27106) | 2.16.840.1.113883.10.20.5.6.200 |
| @extension | 1..1 | SHALL |  | [3247-30555](#C_3247-30555) | 2016-08-01 |
| id | 1..1 | SHALL |  | [3247-27107](#C_3247-27107) |  |
| @nullFlavor | 1..1 | SHALL |  | [3247-30591](#C_3247-30591) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| code | 1..1 | SHALL |  | [3247-27108](#C_3247-27108) |  |
| @code | 1..1 | SHALL |  | [3247-28101](#C_3247-28101) | 18725-2 |
| @codeSystem | 1..1 | SHALL |  | [3247-28102](#C_3247-28102) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [3247-27109](#C_3247-27109) |  |
| @code | 1..1 | SHALL |  | [3247-27110](#C_3247-27110) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..\* | SHALL |  | [3247-27111](#C_3247-27111) |  |
| observation | 1..1 | SHALL |  | [3247-27112](#C_3247-27112) | [Antimicrobial Susceptibility Result Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01](#E_Antimicrobial_Susceptibility_Res_Obs) |

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. SHALL contain exactly one [1..1] @classCode="BATTERY" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-27103).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-27104).
4. SHALL contain exactly one [1..1] templateId (CONF:3247-30554) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1" (CONF:3247-28208).
5. SHALL contain exactly one [1..1] templateId (CONF:3247-27105) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.200" (CONF:3247-27106).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30555).
6. SHALL contain exactly one [1..1] id (CONF:3247-27107).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3247-30591).
7. SHALL contain exactly one [1..1] code (CONF:3247-27108).
   1. This code SHALL contain exactly one [1..1] @code="18725-2" Microbiology Studies (CONF:3247-28101).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3247-28102).
8. SHALL contain exactly one [1..1] statusCode (CONF:3247-27109).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-27110).

Each drug tested must have an observation for each method in the value set NHSNDrugSusceptibilityTestMethod.

1. SHALL contain at least one [1..\*] component (CONF:3247-27111).
   1. Such components SHALL contain exactly one [1..1] [Antimicrobial Susceptibility Result Observation (V3)](#E_Antimicrobial_Susceptibility_Res_Obs) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01) (CONF:3247-27112).

Figure 48: Antimicrobial Susceptibility Result Organizer (V3) Example

<organizer classCode="BATTERY" moodCode="EVN">

<!-- [C-CDA R1.1] Result Organizer -->

<templateId root="2.16.840.1.113883.10.20.22.4.1" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Organizer (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.200" extension="2016-08-01" />

<id nullFlavor="NA" />

<code code="18725-2"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Microbiology Studies" />

<statusCode code="completed" />

<component>

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" />

...

</observation>

</component>

<!-- This observation specifies the susceptibility test was not done. (NegationInd = true) -->

<component>

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Observation (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.186" extension="2016-08-01" />

...

</observation>

</component>

...

</organizer>

Antimicrobial Susceptibility Tests Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01 (closed)]

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Table 153: Antimicrobial Susceptibility Tests Organizer (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Isolate Susceptibility Tests Organizer (V4)](#E_Isolate_Susceptibility_Tests_Org_V4) (required) | [Antimicrobial Susceptibility Final Interpretation Result](#E_Antimicrobial_Susceptibility_Final_In) (required)  [Antimicrobial Susceptibility Result Organizer (V3)](#E_Antimicrobial_Susceptibility_Result_O) (required) |

This organizer identifies a set of antimicrobial susceptibility tests performed on a pathogen along with the final antimicrobial susceptibility result generated by those tests with regard to that pathogen-agent combination.

Table 154: Antimicrobial Susceptibility Tests Organizer (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-21091](#C_3247-21091) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [3247-21092](#C_3247-21092) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3247-30498](#C_3247-30498) |  |
| @root | 1..1 | SHALL |  | [3247-30499](#C_3247-30499) | 2.16.840.1.113883.10.20.22.4.1 |
| templateId | 1..1 | SHALL |  | [3247-21093](#C_3247-21093) |  |
| @root | 1..1 | SHALL |  | [3247-21094](#C_3247-21094) | 2.16.840.1.113883.10.20.5.6.177 |
| @extension | 1..1 | SHALL |  | [3247-30500](#C_3247-30500) | 2016-08-01 |
| id | 1..\* | SHALL |  | [3247-21097](#C_3247-21097) |  |
| @nullFlavor | 1..1 | SHALL |  | [3247-22723](#C_3247-22723) | NA |
| code | 1..1 | SHALL |  | [3247-21098](#C_3247-21098) |  |
| @code | 1..1 | SHALL |  | [3247-21099](#C_3247-21099) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 18725-2 |
| statusCode | 1..1 | SHALL |  | [3247-21100](#C_3247-21100) |  |
| @code | 1..1 | SHALL |  | [3247-21101](#C_3247-21101) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..1 | SHALL |  | [3247-21104](#C_3247-21104) |  |
| organizer | 1..1 | SHALL |  | [3247-27178](#C_3247-27178) | [Antimicrobial Susceptibility Result Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01](#E_Antimicrobial_Susceptibility_Result_O) |
| component | 1..1 | SHALL |  | [3247-21106](#C_3247-21106) |  |
| observation | 1..1 | SHALL |  | [3247-22712](#C_3247-22712) | [Antimicrobial Susceptibility Final Interpretation Result (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.175](#E_Antimicrobial_Susceptibility_Final_In) |

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-21091).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-21092).
4. SHALL contain exactly one [1..1] templateId (CONF:3247-30498) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1" (CONF:3247-30499).
5. SHALL contain exactly one [1..1] templateId (CONF:3247-21093) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.177" (CONF:3247-21094).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30500).
6. SHALL contain at least one [1..\*] id (CONF:3247-21097).
   1. Such ids SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3247-22723).
7. SHALL contain exactly one [1..1] code (CONF:3247-21098).
   1. This code SHALL contain exactly one [1..1] @code="18725-2" Microbiology studies (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3247-21099).
8. SHALL contain exactly one [1..1] statusCode (CONF:3247-21100).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-21101).
9. SHALL contain exactly one [1..1] component (CONF:3247-21104) such that it
   1. SHALL contain exactly one [1..1] [Antimicrobial Susceptibility Result Organizer (V3)](#E_Antimicrobial_Susceptibility_Result_O) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01) (CONF:3247-27178).
10. SHALL contain exactly one [1..1] component (CONF:3247-21106) such that it
    1. SHALL contain exactly one [1..1] [Antimicrobial Susceptibility Final Interpretation Result](#E_Antimicrobial_Susceptibility_Final_In) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.175) (CONF:3247-22712).

Figure 49: Antimicrobial Susceptibility Tests Organizer (V3) Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- [C-CDA R1.1] Result Organizer -->

<templateId root="2.16.840.1.113883.10.20.22.4.1" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Tests Organizer (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.177" extension="2016-08-01" />

<id nullFlavor="NA" />

<code code="18725-2"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Microbiology Studies" />

<statusCode code="completed" />

<component>

<organizer classCode="BATTERY" moodCode="EVN">

<!-- [C-CDA R1.1] Result Organizer -->

<templateId root="2.16.840.1.113883.10.20.22.4.1" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Result Organizer (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.200" extension="2016-08-01" />

...

</organizer>

</component>

<component>

<!-- This observation specifies the Final Interpretation result. -->

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R1] Antimicrobial Susceptibility Final Interpretation Result -->

<templateId root="2.16.840.1.113883.10.20.5.6.175" />

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

...

</observation>

</component>

</organizer>

APRV or Related at Time of VAE Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01 (closed)]

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Table 155: APRV or Related at Time of VAE Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Risk Factors Section in a VAE Report](#S_Risk_Factors_Section_in_a_VAE_Report) (optional) |  |

This clinical statement represents whether or not the patient was on Airway Pressure Release Ventilation (APRV) or a related mode of mechanical ventilation at the time of the Ventilator-Associated Event (VAE).

If the patient was on APRV or related at the time of the VAE, set the value of @negationInd to false. If the patient was not on APRV or related at the time of the VAE, set the value of @negationInd to true.

Table 156: APRV or Related at Time of VAE Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-28405](#C_3311-28405) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3311-28406](#C_3311-28406) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3311-28407](#C_3311-28407) |  |
| templateId | 1..1 | SHALL |  | [3311-28399](#C_3311-28399) |  |
| @root | 1..1 | SHALL |  | [3311-28408](#C_3311-28408) | 2.16.840.1.113883.10.20.5.6.248 |
| @extension | 1..1 | SHALL |  | [3311-28409](#C_3311-28409) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-28396](#C_3311-28396) |  |
| @code | 1..1 | SHALL | CS | [3311-28400](#C_3311-28400) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3311-28401](#C_3311-28401) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3311-28397](#C_3311-28397) |  |
| @code | 1..1 | SHALL |  | [3311-28402](#C_3311-28402) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3311-28398](#C_3311-28398) |  |
| @code | 1..1 | SHALL |  | [3311-28403](#C_3311-28403) | 2342-6 |
| @codeSystem | 1..1 | SHALL |  | [3311-28404](#C_3311-28404) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3311-28405).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3311-28406).

If the patient was on APRV or related at the time of the VAE, set the value of @negationInd to false. If the patient was not on APRV or related at the time of the VAE, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3311-28407).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-28399) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.248" (CONF:3311-28408).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-28409).
3. SHALL contain exactly one [1..1] code (CONF:3311-28396).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3311-28400).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3311-28401).
4. SHALL contain exactly one [1..1] statusCode (CONF:3311-28397).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3311-28402).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3311-28398).
   1. This value SHALL contain exactly one [1..1] @code="2342-6" Patient on Airway Pressure Release Ventilation (APRV) or a related mode of mechanical ventilation at the time of VAE (CONF:3311-28403).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3311-28404).

Figure 50: APRV or Related at Time of VAE

<!-- Setting negationInd="false" indicates that the Patient on Airway Pressure

Release Ventilation (APRV) or a related mode of mechanical ventilation

at the time of VAE -->

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- [HAI R3D2] APRV or Related at Time of VAE Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.248" extension="2017-04-01" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed" />

<value xsi:type="CD" code="2342-6"

displayName="Patient on Airway Pressure Release Ventilation (APRV)

or a related mode of mechanical ventilation at the time of VAE"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</observation>

ARO Staph Aureus Specific Tests Organizer

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.5.6.190 (closed)]

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Table 157: ARO Staph Aureus Specific Tests Organizer Contexts

| Contained By: | Contains: |
| --- | --- |
| [Isolate Susceptibility Tests Organizer (V4)](#E_Isolate_Susceptibility_Tests_Org_V4) (optional) | [ARO Staph Aureus Specific Tests Result Observation](#E_ARO_Staph_Aureus_Specific_Tests_Resul) (required) |

This organizer represents the set of specific tests conducted on an isolate of Staphylococcus aureus when performing antimicrobial susceptibility testing.

Table 158: ARO Staph Aureus Specific Tests Organizer Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.190) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22700](#C_86-22700) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [86-22701](#C_86-22701) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28209](#C_86-28209) |  |
| @root | 1..1 | SHALL |  | [86-28210](#C_86-28210) | 2.16.840.1.113883.10.20.22.4.1 |
| templateId | 1..1 | SHALL |  | [86-22702](#C_86-22702) |  |
| @root | 1..1 | SHALL |  | [86-22703](#C_86-22703) | 2.16.840.1.113883.10.20.5.6.190 |
| id | 1..1 | SHALL |  | [86-22704](#C_86-22704) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-23365](#C_86-23365) | NA |
| code | 1..1 | SHALL |  | [86-22705](#C_86-22705) |  |
| @code | 1..1 | SHALL |  | [86-22706](#C_86-22706) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 18725-2 |
| statusCode | 1..1 | SHALL |  | [86-22707](#C_86-22707) |  |
| @code | 1..1 | SHALL |  | [86-22708](#C_86-22708) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..\* | SHALL |  | [86-22709](#C_86-22709) |  |
| observation | 1..1 | SHALL |  | [86-22710](#C_86-22710) | [ARO Staph Aureus Specific Tests Result Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.189](#E_ARO_Staph_Aureus_Specific_Tests_Resul) |

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-22700).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-22701).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28209) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1" (CONF:86-28210).
5. SHALL contain exactly one [1..1] templateId (CONF:86-22702) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.190" (CONF:86-22703).
6. SHALL contain exactly one [1..1] id (CONF:86-22704).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-23365).
7. SHALL contain exactly one [1..1] code (CONF:86-22705).
   1. This code SHALL contain exactly one [1..1] @code="18725-2" Microbiology studies (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:86-22706).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-22707).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-22708).
9. SHALL contain at least one [1..\*] component (CONF:86-22709) such that it
   1. SHALL contain exactly one [1..1] [ARO Staph Aureus Specific Tests Result Observation](#E_ARO_Staph_Aureus_Specific_Tests_Resul) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.189) (CONF:86-22710).

Figure 51: ARO Staph Aureus Specific Tests Organizer Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- ARO Staph Aureus Specific Tests Organizer -->

<templateId root="2.16.840.1.113883.10.20.5.6.190" />

<!-- Conforms to Consolidated CDA Result Organizer template -->

<templateId root="2.16.840.1.113883.10.20.22.4.1" />

<id nullFlavor="NA" />

<code code="18725-2"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Microbiology studies" />

<statusCode code="completed" />

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- ARO Staph Aureus Specific Tests Result Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.189" />

<!-- Conforms to Consolidated CDA Result Observation template -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

...

</observation>

</component>

...

</organizer>

ARO Staph Aureus Specific Tests Result Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.189 (closed)]

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Table 159: ARO Staph Aureus Specific Tests Result Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [ARO Staph Aureus Specific Tests Organizer](#E_ARO_Staph_Aureus_Specific_Tests_Organ) (required) |  |

This clinical statement represents the results of a Staphylococcus aureus-specific test when performing antimicrobial susceptibility testing. The type of test is recorded in the code element; the results of the test are recorded in the value element.

Table 160: ARO Staph Aureus Specific Tests Result Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.189) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22687](#C_86-22687) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22688](#C_86-22688) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28211](#C_86-28211) |  |
| @root | 1..1 | SHALL |  | [86-28212](#C_86-28212) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [86-22689](#C_86-22689) |  |
| @root | 1..1 | SHALL |  | [86-22690](#C_86-22690) | 2.16.840.1.113883.10.20.5.6.189 |
| id | 1..1 | SHALL |  | [86-22691](#C_86-22691) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22692](#C_86-22692) | NA |
| code | 1..1 | SHALL |  | [86-22693](#C_86-22693) | urn:oid:2.16.840.1.114222.4.11.7160 (NHSNStaphAureusSpecificTest) |
| statusCode | 1..1 | SHALL |  | [86-22694](#C_86-22694) |  |
| @code | 1..1 | SHALL |  | [86-22695](#C_86-22695) | completed |
| effectiveTime | 1..1 | SHALL |  | [86-22696](#C_86-22696) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22697](#C_86-22697) | NA |
| value | 1..1 | SHALL | CD | [86-22698](#C_86-22698) | urn:oid:2.16.840.1.114222.4.11.6074 (NHSNStaphAureusTestResults) |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-22687).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-22688).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28211) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:86-28212).
5. SHALL contain exactly one [1..1] templateId (CONF:86-22689) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.189" (CONF:86-22690).
6. SHALL contain exactly one [1..1] id (CONF:86-22691).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22692).
7. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNStaphAureusSpecificTest](#NHSNStaphAureusSpecificTest) urn:oid:2.16.840.1.114222.4.11.7160 DYNAMIC (CONF:86-22693).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-22694).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CONF:86-22695).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-22696).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22697).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNStaphAureusTestResults](#NHSNStaphAureusTestResults) urn:oid:2.16.840.1.114222.4.11.6074 DYNAMIC (CONF:86-22698).

Table 161: NHSNStaphAureusSpecificTest

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNStaphAureusSpecificTest urn:oid:2.16.840.1.114222.4.11.7160  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of Staphylococcus aureus-specific test used to perform antimicrobial susceptibility testing.),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7160/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 42721-1 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Oxacillin Resistant Staphylococcus sp isolate [Presence] in Isolate by Latex agglutination |
| 48813-0 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Methicillin resistance mecA gene [Presence] by Molecular method |

Table 162: NHSNStaphAureusTestResults

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNStaphAureusTestResults urn:oid:2.16.840.1.114222.4.11.6074  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the results of a Staphylococcus aureus-specific test when performing antimicrobial susceptibility testing.),(Data Element Scope: A coded observation value describing the result of a Staphylococcus aureus-specific test when performing antimicrobial susceptibility testing),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6074/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 10828004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Positive (qualifier value) |
| 260385009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Negative (qualifier value) |
| 261665006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Unknown (qualifier value) |

Figure 52: ARO Staph Aureus Specific Tests Result Example

<observation classCode="OBS" moodCode="EVN">

<!-- ARO Staph Aureus Specific Tests Result Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.189"/>

<!-- Conforms to Consolidated CDA Result Observation template -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<id nullFlavor="NA"/>

<code code="42721-1"

displayName="Oxacillin Resistant Staphylococcus sp isolate [Presence]

in Isolate by Latex agglutination"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="260385009"

displayName="Negative"/>

</observation>

ASA Class Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.113 (closed)]

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Table 163: ASA Class Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (optional)  [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) (optional) |  |

This observation records the patient’s physical status using the American Society of Anesthesiologists (ASA) Class Codes. The SNOMED CT representation of ASA Class Codes includes a sixth value (413500003 ASA physical status class 6 for brain-dead patients taken to the operating room to remove organs for transplant). This sixth value is not part of the value set allowed in a CDA document submitted to NHSN.

Table 164: ASA Class Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.113) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19583](#C_86-19583) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19584](#C_86-19584) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19585](#C_86-19585) | false |
| templateId | 1..1 | SHALL |  | [86-28213](#C_86-28213) |  |
| @root | 1..1 | SHALL |  | [86-28214](#C_86-28214) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19594](#C_86-19594) |  |
| @root | 1..1 | SHALL |  | [86-19595](#C_86-19595) | 2.16.840.1.113883.10.20.5.6.113 |
| id | 1..1 | SHALL |  | [86-19596](#C_86-19596) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22724](#C_86-22724) | NA |
| code | 1..1 | SHALL |  | [86-19586](#C_86-19586) |  |
| @code | 1..1 | SHALL |  | [86-19587](#C_86-19587) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28370](#C_86-28370) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19588](#C_86-19588) |  |
| @code | 1..1 | SHALL |  | [86-19589](#C_86-19589) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-19590](#C_86-19590) | urn:oid:2.16.840.1.113883.13.10 (NHSNASAClassCode) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19583).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19584).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-19585).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28213) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28214).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19594) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.113" (CONF:86-19595).
7. SHALL contain exactly one [1..1] id (CONF:86-19596).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22724).
8. SHALL contain exactly one [1..1] code (CONF:86-19586).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19587).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28370).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19588).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19589).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNASAClassCode](#NHSNASAClassCode) urn:oid:2.16.840.1.113883.13.10 DYNAMIC (CONF:86-19590).

Table 165: NHSNASAClassCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNASAClassCode urn:oid:2.16.840.1.113883.13.10  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the ASA class code.),(Data Element Scope: This observation value records the patient’s physical status using the American Society of Anesthesiologists (ASA) Class Codes),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.10/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 413495001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | American Society of Anesthesiologists physical status class 1 (finding) |
| 413496000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | American Society of Anesthesiologists physical status class 2 (finding) |
| 413497009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | American Society of Anesthesiologists physical status class 3 (finding) |
| 413498004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | American Society of Anesthesiologists physical status class 4 (finding) |
| 413499007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | American Society of Anesthesiologists physical status class 5 (finding) |

Figure 53: ASA Class Observation Example

<!-- ASA Class Observation -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- ASA Class Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.113"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

code="413495001" displayName="Normally healthy patient"/>

</observation>

Bacterial Isolate Tested for Carbapenemase Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01 (closed)]

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Table 166: Bacterial Isolate Tested for Carbapenemase Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Pathogen Identified Observation (LIO) (V2)](#E_Pathogen_Identified_Observation_LIO_V2) (optional) | [Carbapenemase Test Organizer](#E_Carbapenemase_Test_Organizer) (optional)  [Positive Test for Carbapenemase Observation](#E_Positive_Test_for_Carbapenemase_Obser) (optional) |

This template represents whether or not the bacterial isolate was tested for carbapenemase.

When the bacterial isolate was tested, set the value of @negationInd to false. When the bacterial isolate was not tested, set the value of @negationInd to true. When it is unknown whether or not the bacterial isolate was tested, set the value of @nullFlavor to "UNK".

Table 167: Bacterial Isolate Tested for Carbapenemase Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [1129-30360](#C_1129-30360) | UNK |
| @classCode | 1..1 | SHALL |  | [1129-30353](#C_1129-30353) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-30354](#C_1129-30354) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | SHOULD |  | [1129-30355](#C_1129-30355) |  |
| templateId | 1..1 | SHALL |  | [1129-30501](#C_1129-30501) |  |
| @root | 1..1 | SHALL |  | [1129-30502](#C_1129-30502) | 2.16.840.1.113883.10.20.5.6.222 |
| @extension | 1..1 | SHALL |  | [1129-30503](#C_1129-30503) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-30336](#C_1129-30336) |  |
| @code | 1..1 | SHALL |  | [1129-30345](#C_1129-30345) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1129-30603](#C_1129-30603) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1129-30337](#C_1129-30337) |  |
| @code | 1..1 | SHALL |  | [1129-30346](#C_1129-30346) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1129-30338](#C_1129-30338) |  |
| @code | 1..1 | SHALL |  | [1129-30347](#C_1129-30347) | 2037-0 |
| @codeSystem | 1..1 | SHALL |  | [1129-30437](#C_1129-30437) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| entryRelationship | 1..1 | SHOULD |  | [1129-30335](#C_1129-30335) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30356](#C_1129-30356) | COMP |
| organizer | 1..1 | SHALL |  | [1129-30414](#C_1129-30414) | [Carbapenemase Test Organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01](#E_Carbapenemase_Test_Organizer) |
| entryRelationship | 1..1 | SHOULD |  | [1129-30438](#C_1129-30438) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30439](#C_1129-30439) | COMP |
| observation | 1..1 | SHALL |  | [1129-30440](#C_1129-30440) | [Positive Test for Carbapenemase Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01](#E_Positive_Test_for_Carbapenemase_Obser) |

1. MAY contain zero or one [0..1] @nullFlavor="UNK" (CONF:1129-30360).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-30353).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-30354).
4. SHOULD contain zero or one [0..1] @negationInd (CONF:1129-30355).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-30501) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.222" (CONF:1129-30502).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30503).
6. SHALL contain exactly one [1..1] code (CONF:1129-30336).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1129-30345).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30603).
7. SHALL contain exactly one [1..1] statusCode (CONF:1129-30337).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-30346).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1129-30338).
   1. This value SHALL contain exactly one [1..1] @code="2037-0" Bacterial isolate tested for carbapenemase (CONF:1129-30347).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30437).

If the value of @negationInd is "false" this observation is required to contain the following entryRelationship

1. SHOULD contain exactly one [1..1] entryRelationship (CONF:1129-30335) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:1129-30356).
   2. SHALL contain exactly one [1..1] [Carbapenemase Test Organizer](#E_Carbapenemase_Test_Organizer) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01) (CONF:1129-30414).

If any tests were performed this observation is required to contain the following entryRelationship

1. SHOULD contain exactly one [1..1] entryRelationship (CONF:1129-30438) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:1129-30439).
   2. SHALL contain exactly one [1..1] [Positive Test for Carbapenemase Observation](#E_Positive_Test_for_Carbapenemase_Obser) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01) (CONF:1129-30440).

Figure 54: Bacterial Isolate Tested for Carbapenemase Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- Bacterial Isolate Tested for Carbapenemase Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.222"

extension="2014-12-01"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="2037-0"

displayName="Bacterial isolate tested for carbapenemase"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

<!-- If the value of negationInd="false" for the Bacterial

Isolate Tested for Carbapenemase template (meaning it

was tested) then the following entryRelationship is

required -->

<entryRelationship typeCode="COMP">

<!-- Carbapenemase Test Organizer -->

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- C-CDA Result Organizer templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.1"/>

<!-- Carbapenemase Test Organizer templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.223"

extension="2014-12-01"/>

...

</organizer>

</entryRelationship>

<!-- If any tests were performed, this entryRelationship is required -->

<entryRelationship typeCode="COMP">

<!-- Positive Test for Carbapenemase Observation -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- Positive Test for Carbapenemase Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.225"

extension="2014-12-01"/>

...

</observation>

</entryRelationship>

</observation>

Blood Collection Location

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01 (closed)]

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Table 168: Blood Collection Location Contexts

| Contained By: | Contains: |
| --- | --- |
| [Positive Blood Culture Observation (V3)](#E_Positive_Blood_Culture_Observation_V3) (optional) |  |

If there is a positive blood culture, this template records the location where the blood was collected.

If the blood collection location is other than one specified in the value set NHSNBloodCollectionLocation, use value/@nullFlavor="OTH".

Table 169: Blood Collection Location Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-30299](#C_1129-30299) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-30300](#C_1129-30300) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30504](#C_1129-30504) |  |
| @root | 1..1 | SHALL |  | [1129-30505](#C_1129-30505) | 2.16.840.1.113883.10.20.5.6.219 |
| @extension | 1..1 | SHALL |  | [1129-30506](#C_1129-30506) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-30296](#C_1129-30296) |  |
| @code | 1..1 | SHALL |  | [1129-30304](#C_1129-30304) | 2331-7 |
| @codeSystem | 1..1 | SHALL |  | [1129-30305](#C_1129-30305) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [1129-30297](#C_1129-30297) |  |
| @code | 1..1 | SHALL |  | [1129-30306](#C_1129-30306) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1129-30315](#C_1129-30315) | urn:oid:2.16.840.1.114222.4.11.7237 (NHSNBloodCollectionLocation) |
| @nullFlavor | 0..1 | MAY |  | [1129-30316](#C_1129-30316) | OTH |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30299).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30300).
3. SHALL contain exactly one [1..1] templateId (CONF:1129-30504) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.219" (CONF:1129-30505).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30506).
4. SHALL contain exactly one [1..1] code (CONF:1129-30296).
   1. This code SHALL contain exactly one [1..1] @code="2331-7" Where was the positive blood culture collected (CONF:1129-30304).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30305).
5. SHALL contain exactly one [1..1] statusCode (CONF:1129-30297).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-30306).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet [NHSNBloodCollectionLocation](#NHSNBloodCollectionLocation) urn:oid:2.16.840.1.114222.4.11.7237 DYNAMIC (CONF:1129-30315).

If the blood collection location is other than one specified in the value set NHSNBloodCollectionLocation, use nullFlavor="OTH"

* 1. This value MAY contain zero or one [0..1] @nullFlavor="OTH" (CONF:1129-30316).

Table 170: NHSNBloodCollectionLocation

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNBloodCollectionLocation urn:oid:2.16.840.1.114222.4.11.7237  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the location where blood was collected.),(Data Element Scope: If there is a positive blood culture, this coded observation value records the location where the blood was collected.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7237/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2332-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Hospital (on the day of or the day following admission) or Emergency Department |
| 2333-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Dialysis clinic |

Figure 55: Blood Collection Location Example

<observation classCode="OBS" moodCode="EVN">

<!-- Blood Collection Location templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.219"

extension="2014-12-01"/>

<code code="2331-7"

displayName="Where was the positive blood culture collected"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="2333-3"

displayName="Dialysis Clinic"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</observation>

Figure 56: Blood Collection Location - Other Example

<observation classCode="OBS" moodCode="EVN">

<!-- Blood Collection Location templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.219"

extension="2014-12-01"/>

<code code="2331-7"

displayName="Where was the positive blood culture collected"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

<statusCode code="completed"/>

<value xsi:type="CD" nullFlavor="OTH" />

</observation>

Blood Product Usage Summary Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01 (closed)]

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Table 171: Blood Product Usage Summary Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) (required) | [ISBT Product Code Summary Observation (V2)](#E_ISBT_Product_Code_Summary_ObsV2) (optional) |

This template represents the number of units transfused, aliquots transfused, or total discards for each type of blood product.

If the value = 0 or type of product is one of the following, there SHALL NOT be a contained observation:

* Red Blood Cells/Whole Blood Derived/Total (3401-7, 3402-5, 3470-2)
* Red Blood Cells/Apheresis/Total (3409-0, 3410-8, 3477-7)
* Platelets/Whole Blood Derived/Total (3417-3, 3484-3)
* Platelets/Apheresis/Total (3421-5, 3422-3, 3490-0)
* Red Blood Cells/Whole Blood Derived/S-303 and Riboflavin Treated/Total (3544-4, 3545-1, 3546-9)
* Red Blood Cells/Apheresis/S-303 and Riboflavin Treated/Total (3553-5, 3554-3, 3555-0)
* Platelets/Whole Blood Derived/Psoralen and Riboflavin Treated/Total (3502-2, 3504-8)
* Platelets/Apheresis/Psoralen and Riboflavin Treated/Total (3511-3, 3512-1, 3513-9)
* Plasma/Whole Blood Derived/Psoralen and Riboflavin Treated/Total (3520-4, 3521-2, 3522-0)
* Plasma/Apheresis/Psoralen and Riboflavin Treated/Total (3529-5, 3530-3, 3531-1)
* Cryoprecipitate/Psoralen and Riboflavin Treated/Total (3562-6, 3563-4)  
  If the value is > 0 and the type of product is not one of those listed above, then each specific subcategory product that is > 0 SHALL be listed in a separate contained ISBT Product Code Summary Observation.

Table 172: Blood Product Usage Summary Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-30705](#C_3247-30705) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3247-30706](#C_3247-30706) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3247-30701](#C_3247-30701) |  |
| @root | 1..1 | SHALL |  | [3247-30707](#C_3247-30707) | 2.16.840.1.113883.10.20.5.6.237 |
| @extension | 1..1 | SHALL |  | [3247-30714](#C_3247-30714) | 2016-08-01 |
| code | 1..1 | SHALL |  | [3247-30702](#C_3247-30702) |  |
| @code | 1..1 | SHALL |  | [3247-30715](#C_3247-30715) | urn:oid:2.16.840.1.114222.4.11.7353 (NHSNSummaryBloodProductUsage) |
| statusCode | 1..1 | SHALL |  | [3247-30703](#C_3247-30703) |  |
| @code | 1..1 | SHALL |  | [3247-30713](#C_3247-30713) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | INT | [3247-30704](#C_3247-30704) |  |
| entryRelationship | 0..\* | SHOULD |  | [3247-30728](#C_3247-30728) |  |
| observation | 1..1 | SHALL |  | [3247-30729](#C_3247-30729) | [ISBT Product Code Summary Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01](#E_ISBT_Product_Code_Summary_ObsV2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-30705).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-30706).
3. SHALL contain exactly one [1..1] templateId (CONF:3247-30701) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.237" (CONF:3247-30707).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30714).
4. SHALL contain exactly one [1..1] code (CONF:3247-30702).
   1. This code SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSNSummaryBloodProductUsage](#NHSNSummaryBloodProductUsage) urn:oid:2.16.840.1.114222.4.11.7353 DYNAMIC (CONF:3247-30715).
5. SHALL contain exactly one [1..1] statusCode (CONF:3247-30703).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-30713).
6. SHALL contain exactly one [1..1] value with @xsi:type="INT" (CONF:3247-30704).
7. SHOULD contain zero or more [0..\*] entryRelationship (CONF:3247-30728).
   1. The entryRelationship, if present, SHALL contain exactly one [1..1] [ISBT Product Code Summary Observation (V2)](#E_ISBT_Product_Code_Summary_ObsV2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01) (CONF:3247-30729).
8. If the value = 0 or type of product is one of the following, there SHALL NOT be a contained observation:

Table 173: NHSNSummaryBloodProductUsage

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSummaryBloodProductUsage urn:oid:2.16.840.1.114222.4.11.7353  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for hemovigilance),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7353/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 3401-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Total number of units transfused: Red Blood Cells: Whole blood-derived |
| 3402-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Total number of aliquots transfused: Red Blood Cells: Whole blood-derived |
| ... | | | |

Figure 57: Blood Product Usage Summary Observation (V2) Example

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3D1.1] Blood Product Usage Summary Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2016-08-01" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3467-8"

displayName="Total number of units transfused - Whole blood" />

<statusCode code="completed" />

<value xsi:type="INT" value="100" />

<!--

If the value = 0 or type of product is one of the following,

there SHALL NOT be a contained observation:

Red Blood Cells/Whole Blood Derived/Total (3401-7, 3402-5, 3470-2)

Red Blood Cells/Apheresis/Total (3409-0, 3410-8, 3477-7)

Platelets/Whole Blood Derived/Total (3417-3, 3484-3)

Platelets/Apheresis/Total (3421-5, 3422-3, 3490-0)

Red Blood Cells/Whole Blood Derived/S-303 and Riboflavin Treated/Total (3544-4, 3545-1, 3546-9)

Red Blood Cells/Apheresis/S-303 and Riboflavin Treated/Total (3553-5, 3554-3, 3555-0)

Platelets/Whole Blood Derived/Psoralen and Riboflavin Treated/Total (3502-2, 3504-8)

Platelets/Apheresis/Psoralen and Riboflavin Treated/Total (3511-3, 3512-1, 3513-9)

Plasma/Whole Blood Derived/Psoralen and Riboflavin Treated/Total (3520-4, 3521-2, 3522-0)

Plasma/Apheresis/Psoralen and Riboflavin Treated/Total (3529-5, 3530-3, 3531-1)

Cryoprecipitate/Psoralen and Riboflavin Treated/Total (3562-6, 3563-4)

If the value is > 0 and the type of product is not one of those listed above,

then each specific subcategory product that is > 0 SHALL be listed in a

separate contained ISBT Product Code Summary Observation.

-->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- ISBT Product Code Summary Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.238" extension="2016-08-01" />

..

</observation>

</entryRelationship>

...

</observation>

Blood Sample Collected for Culture Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, DSTU 1.1 - US Realm

Table 174: Blood Sample Collected for Culture Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [IV Antibiotic Start Clinical Statement (V4)](#E_IV_Antibiotic_Start_Clinical_Stmt_V4) (optional) |  |

This observation records whether a blood sample was collected for culture when there was a new antimicrobial start. If there was no antimicrobial start then this template will not be included.

When a blood sample was collected for culture when there was a new antimicrobial start, set the value of @negationInd to false. When a blood sample was not collected for culture when there was a new antimicrobial start, set the value of @negationInd to true.

Table 175: Blood Sample Collected for Culture Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-11](#C_3247-11) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3247-12](#C_3247-12) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3247-14](#C_3247-14) |  |
| templateId | 1..1 | SHALL |  | [3247-1](#C_3247-1) |  |
| @root | 1..1 | SHALL |  | [3247-5](#C_3247-5) | 2.16.840.1.113883.10.20.5.6.239 |
| @extension | 1..1 | SHALL |  | [3247-6](#C_3247-6) | 2016-08-01 |
| code | 1..1 | SHALL |  | [3247-2](#C_3247-2) |  |
| @code | 1..1 | SHALL |  | [3247-7](#C_3247-7) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3247-8](#C_3247-8) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3247-4](#C_3247-4) |  |
| @code | 1..1 | SHALL |  | [3247-13](#C_3247-13) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3247-3](#C_3247-3) |  |
| @code | 1..1 | SHALL |  | [3247-9](#C_3247-9) | 2339-0 |
| @codeSystem | 1..1 | SHALL |  | [3247-10](#C_3247-10) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-11).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-12).

When a blood sample was collected for culture when there was a new antimicrobial start, set the value of @negationInd to false. When a blood sample was not collected for culture when there was a new antimicrobial start, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3247-14).
2. SHALL contain exactly one [1..1] templateId (CONF:3247-1) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.239" (CONF:3247-5).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-6).
3. SHALL contain exactly one [1..1] code (CONF:3247-2).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3247-7).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3247-8).
4. SHALL contain exactly one [1..1] statusCode (CONF:3247-4).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-13).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3247-3).
   1. This value SHALL contain exactly one [1..1] @code="2339-0" Blood sample collected for culture (CONF:3247-9).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3247-10).

Figure 58: Blood Sample Collected for Culture Example

<!-- Blood sample was collected so @negationInd="false" -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [HAI R3D1.1] Blood Sample Collected for Culture Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.239" extension="2016-08-01" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed" />

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2339-0"

displayName="Blood sample collected for culture" />

</observation>

Bloodstream Infection Evidence Type Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.114 (closed)]

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Table 176: Bloodstream Infection Evidence Type Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection-Type Observation](#E_InfectionType_Observation) (optional) |  |

This observation records whether the bloodstream infection being reported was confirmed by a positive blood culture.

Table 177: Bloodstream Infection Evidence Type Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.114) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19597](#C_86-19597) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19598](#C_86-19598) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19599](#C_86-19599) | false |
| templateId | 1..1 | SHALL |  | [86-28215](#C_86-28215) |  |
| @root | 1..1 | SHALL |  | [86-28216](#C_86-28216) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19608](#C_86-19608) |  |
| @root | 1..1 | SHALL |  | [86-19609](#C_86-19609) | 2.16.840.1.113883.10.20.5.6.114 |
| id | 1..1 | SHALL |  | [86-19610](#C_86-19610) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22725](#C_86-22725) | NA |
| code | 1..1 | SHALL |  | [86-19600](#C_86-19600) |  |
| @code | 1..1 | SHALL |  | [86-19601](#C_86-19601) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28371](#C_86-28371) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19602](#C_86-19602) |  |
| @code | 1..1 | SHALL |  | [86-19603](#C_86-19603) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-19604](#C_86-19604) | urn:oid:2.16.840.1.113883.13.7 (NHSNBloodStreamInfectionEvidenceTypeCode) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19597).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19598).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-19599).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28215) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28216).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19608) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.114" (CONF:86-19609).
7. SHALL contain exactly one [1..1] id (CONF:86-19610).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22725).
8. SHALL contain exactly one [1..1] code (CONF:86-19600).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19601).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28371).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19602).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19603).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNBloodStreamInfectionEvidenceTypeCode](#NHSNBloodStreamInfectionEvidenceTypeCod) urn:oid:2.16.840.1.113883.13.7 DYNAMIC (CONF:86-19604).

Table 178: NHSNBloodStreamInfectionEvidenceTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNBloodStreamInfectionEvidenceTypeCode urn:oid:2.16.840.1.113883.13.7  (Clinical Focus: NHSN surveillance reporting: Used to express a laboratory-confirmed bloodstream infection),(Data Element Scope: This observation value records whether the bloodstream infection being reported was confirmed by a positive blood culture.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.7/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1613-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Laboratory-confirmed bloodstream infection |

Figure 59: Bloodstream Infection Evidence Type Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Bloodstream Infection Evidence Type Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.114"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

code=”ASSERTION”/>

<statusCode code=”completed”/>

<value xsi:type=”CD”

codeSystem=”2.16.840.1.113883.6.277”

codeSystemName=”cdcNHSN”

value=”1613-9”

displayName=” Laboratory-confirmed bloodstream infection”/>

</observation>

Buttonhole Cannulation Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.115 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 179: Buttonhole Cannulation Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Vascular Access Type Observation](#E_Vascular_Access_Type_Observation) (optional) |  |

This observation records whether the patient’s fistula is accessed by buttonhole cannulation. This observation does not record a specific dialysis event but rather the technique in current use with the patient.  
When buttonhole cannulation is used, set the value of @negationInd to false. When the buttonhole cannulation is not used, set the value of @negationInd to true.

Table 180: Buttonhole Cannulation Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.115) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21764](#C_86-21764) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21765](#C_86-21765) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21766](#C_86-21766) |  |
| templateId | 1..1 | SHALL |  | [86-28217](#C_86-28217) |  |
| @root | 1..1 | SHALL |  | [86-28218](#C_86-28218) | 2.16.840.1.113883.10.20.22.4.13 |
| templateId | 1..1 | SHALL |  | [86-21775](#C_86-21775) |  |
| @root | 1..1 | SHALL |  | [86-21776](#C_86-21776) | 2.16.840.1.113883.10.20.5.6.115 |
| id | 1..1 | SHALL |  | [86-21777](#C_86-21777) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22726](#C_86-22726) | NA |
| code | 1..1 | SHALL |  | [86-21767](#C_86-21767) |  |
| @code | 1..1 | SHALL |  | [86-21768](#C_86-21768) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28372](#C_86-28372) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21769](#C_86-21769) |  |
| @code | 1..1 | SHALL |  | [86-21770](#C_86-21770) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21771](#C_86-21771) |  |
| @code | 1..1 | SHALL |  | [86-21772](#C_86-21772) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2308-5 |

1. Conforms to Procedure Activity Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.13).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21764).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21765).

When buttonhole cannulation is used, set the value of @negationInd to false. When the buttonhole cannulation is not used, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:86-21766).
2. SHALL contain exactly one [1..1] templateId (CONF:86-28217) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.13" (CONF:86-28218).
3. SHALL contain exactly one [1..1] templateId (CONF:86-21775) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.115" (CONF:86-21776).
4. SHALL contain exactly one [1..1] id (CONF:86-21777).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22726).
5. SHALL contain exactly one [1..1] code (CONF:86-21767).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21768).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28372).
6. SHALL contain exactly one [1..1] statusCode (CONF:86-21769).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21770).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21771).
   1. This value SHALL contain exactly one [1..1] @code="2308-5" Buttonhole cannulation (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-21772).

Figure 60: Buttonhole Cannulation Observation Example

<!-- Buttonhole cannulation is used -->

<observation classCode="OBS" moodCode="EVN" negationInd=”true">

<!-- C-CDA Procedure Activity Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.13"/>

<!-- HAI Buttonhole Cannulation Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.115"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2308-5"

displayName="Buttonhole cannulation"/>

</observation>

Carbapenemase Test Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 181: Carbapenemase Test Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Carbapenemase Test Organizer](#E_Carbapenemase_Test_Organizer) (required) |  |

This clinical statement represents a carbapenemase test. The type of test is recorded in the code element.

If the type of test is other than one specified in NHSNCarbaTestMethod, use code/@nullFlavor="OTH" and enter the testing method in code/originalText. If the type of test is unknown, use code/@nullFlavor="UNK".

Table 182: Carbapenemase Test Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-30379](#C_1129-30379) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-30380](#C_1129-30380) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30375](#C_1129-30375) |  |
| @root | 1..1 | SHALL |  | [1129-30381](#C_1129-30381) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [1129-30507](#C_1129-30507) |  |
| @root | 1..1 | SHALL |  | [1129-30508](#C_1129-30508) | 2.16.840.1.113883.10.20.5.6.224 |
| @extension | 1..1 | SHALL |  | [1129-30509](#C_1129-30509) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-30376](#C_1129-30376) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30382](#C_1129-30382) | NA |
| code | 1..1 | SHALL |  | [1129-30383](#C_1129-30383) | urn:oid:2.16.840.1.114222.4.11.7240 (NHSNCarbaTestMethod) |
| @nullFlavor | 0..1 | MAY |  | [1129-30389](#C_1129-30389) | urn:oid:2.16.840.1.113883.10.20.5.9.1 (NullValues\_UNK\_OTH) |
| originalText | 0..1 | MAY |  | [1129-30390](#C_1129-30390) |  |
| statusCode | 1..1 | SHALL |  | [1129-30377](#C_1129-30377) |  |
| @code | 1..1 | SHALL |  | [1129-30384](#C_1129-30384) | completed |
| effectiveTime | 1..1 | SHALL |  | [1129-30378](#C_1129-30378) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30385](#C_1129-30385) | NA |
| value | 1..1 | SHALL | CD | [1129-30386](#C_1129-30386) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30388](#C_1129-30388) | NA |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30379).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30380).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30375) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30381).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-30507) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.224" (CONF:1129-30508).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30509).
6. SHALL contain exactly one [1..1] id (CONF:1129-30376).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30382).

If the type of test is other than one specified in NHSNCarbaTestMethod, use code/@nullFlavor="OTH" and enter the testing method in code/originalText. If the type of test is unknown, use code/@nullFlavor="UNK".

1. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [NHSNCarbaTestMethod](#NHSNCarbaTestMethod) urn:oid:2.16.840.1.114222.4.11.7240 DYNAMIC (CONF:1129-30383).
   1. This code MAY contain zero or one [0..1] @nullFlavor, which SHALL be selected from ValueSet [NullValues\_UNK\_OTH](#NullValues_UNK_OTH) urn:oid:2.16.840.1.113883.10.20.5.9.1 STATIC 2014-11-01 (CONF:1129-30389).
   2. This code MAY contain zero or one [0..1] originalText (CONF:1129-30390).
2. SHALL contain exactly one [1..1] statusCode (CONF:1129-30377).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CONF:1129-30384).
3. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-30378).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30385).
4. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1129-30386).
   1. This value SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30388).

Table 183: NHSNCarbaTestMethod

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNCarbaTestMethod urn:oid:2.16.840.1.114222.4.11.7240  (Clinical Focus: NHSN surveillance reporting: Test methods to identify carbapenemase producers),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7240/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2039-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | PCR: Klebsiella pneumoniae carbapenemase |
| 2040-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | PCR: New Delhi metallo-beta-lactamase |
| 2041-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | PCR: Imipenemase |
| 2042-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | PCR: Verona integron-encoded metallo-beta-lactamase |
| 2043-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | PCR: Oxacillinase-48 like |
| 2044-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Modified Hodge test |
| 2045-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Carba NP |
| 2046-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Metallo-beta-lactamase gradient strip |
| 2047-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Metallo-beta-lactamase screen |

Table 184: NullValues\_UNK\_OTH

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NullValues\_UNK\_OTH urn:oid:2.16.840.1.113883.10.20.5.9.1  Null values of unknown and other.  Value Set Source: <https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2843> | | | |
| Code | Code System | Code System OID | Print Name |
| UNK | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | Unknown |
| OTH | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | Other |

Figure 61: Carbapenemase Test Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Test Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.224"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code code="2039-6"

displayName="(PCR-KPC) Polymerase chain reaction –

Klebsiella pneumoniae carbapenemase"

codeSystem="2.16.840.1.113883.6.277" codeSystemName="cdcNHSN"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD" nullFlavor="NA"/>

</observation>

Figure 62: Carbapenemase Test Observation - Other Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Test Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.224"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code nullFlavor="OTH">

<originalText>Other carbapenemase test not in value set</originalText>

</code>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD" nullFlavor="NA"/>

</observation>

Carbapenemase Test Organizer

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01 (closed)]

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Table 185: Carbapenemase Test Organizer Contexts

| Contained By: | Contains: |
| --- | --- |
| [Bacterial Isolate Tested for Carbapenemase Observation](#E_Bacterial_Isolate_Tested_for_Carbapen) (optional) | [Carbapenemase Test Observation](#E_Carbapenemase_Test_Observation) (required) |

This organizer represents the set of specific tests conducted on a bacterial isolate to test for carbapenemase.

Table 186: Carbapenemase Test Organizer Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-30367](#C_1129-30367) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [1129-30368](#C_1129-30368) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30362](#C_1129-30362) |  |
| @root | 1..1 | SHALL |  | [1129-30369](#C_1129-30369) | 2.16.840.1.113883.10.20.22.4.1 |
| templateId | 1..1 | SHALL |  | [1129-30510](#C_1129-30510) |  |
| @root | 1..1 | SHALL |  | [1129-30511](#C_1129-30511) | 2.16.840.1.113883.10.20.5.6.223 |
| @extension | 1..1 | SHALL |  | [1129-30512](#C_1129-30512) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-30363](#C_1129-30363) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30370](#C_1129-30370) | NA |
| code | 1..1 | SHALL |  | [1129-30364](#C_1129-30364) |  |
| @code | 1..1 | SHALL |  | [1129-30371](#C_1129-30371) | 18725-2 |
| @codeSystem | 1..1 | SHALL |  | [1129-30374](#C_1129-30374) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [1129-30365](#C_1129-30365) |  |
| @code | 1..1 | SHALL |  | [1129-30372](#C_1129-30372) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..\* | SHALL |  | [1129-30361](#C_1129-30361) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30391](#C_1129-30391) | COMP |
| observation | 1..1 | SHALL |  | [1129-30366](#C_1129-30366) | [Carbapenemase Test Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01](#E_Carbapenemase_Test_Observation) |

1. Conforms to Result Organizer template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.1).
2. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30367).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30368).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30362) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.1" (CONF:1129-30369).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-30510) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.223" (CONF:1129-30511).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30512).
6. SHALL contain exactly one [1..1] id (CONF:1129-30363).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30370).
7. SHALL contain exactly one [1..1] code (CONF:1129-30364).
   1. This code SHALL contain exactly one [1..1] @code="18725-2" Microbiology studies (CONF:1129-30371).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30374).
8. SHALL contain exactly one [1..1] statusCode (CONF:1129-30365).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-30372).
9. SHALL contain at least one [1..\*] component (CONF:1129-30361) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:1129-30391).
   2. SHALL contain exactly one [1..1] [Carbapenemase Test Observation](#E_Carbapenemase_Test_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01) (CONF:1129-30366).

Figure 63: Carbapenemase Test Organizer Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- C-CDA Result Organizer templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.1"/>

<!-- Carbapenemase Test Organizer templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.223"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code code="18725-2" displayName="Microbiology Studies"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"/>

<statusCode code="completed"/>

<component typeCode="COMP">

<!-- Carbapenemase Test Observation -->

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Test Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.224"

extension="2014-12-01"/>

...

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Test Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.224"

extension="2014-12-01"/>

...

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Test Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.224"

extension="2014-12-01"/>

...

</observation>

</component>

</organizer>

Carbapenemase Type Identified Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01 (closed)]

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Table 187: Carbapenemase Type Identified Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Positive Test for Carbapenemase Observation](#E_Positive_Test_for_Carbapenemase_Obser) (optional) |  |

This template represents a carbapenemase type identified when the bacterial isolate was tested.

If the type of carbapenemase is other than one specified in NHSNCarbaDetectType, use value/@nullFlavor="OTH" and enter the carbapenemase type in value/originalText.

Table 188: Carbapenemase Type Identified Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-30453](#C_1129-30453) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-30454](#C_1129-30454) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30442](#C_1129-30442) |  |
| @root | 1..1 | SHALL |  | [1129-30448](#C_1129-30448) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [1129-30513](#C_1129-30513) |  |
| @root | 1..1 | SHALL |  | [1129-30514](#C_1129-30514) | 2.16.840.1.113883.10.20.5.6.226 |
| @extension | 1..1 | SHALL |  | [1129-30515](#C_1129-30515) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-30443](#C_1129-30443) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30450](#C_1129-30450) | NA |
| code | 1..1 | SHALL |  | [1129-30459](#C_1129-30459) |  |
| @code | 1..1 | SHALL |  | [1129-30460](#C_1129-30460) | 2049-5 |
| @codeSystem | 1..1 | SHALL |  | [1129-30461](#C_1129-30461) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [1129-30444](#C_1129-30444) |  |
| @code | 1..1 | SHALL |  | [1129-30451](#C_1129-30451) | completed |
| effectiveTime | 1..1 | SHALL |  | [1129-30445](#C_1129-30445) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30452](#C_1129-30452) | NA |
| value | 1..1 | SHALL | CD | [1129-30447](#C_1129-30447) | urn:oid:2.16.840.1.114222.4.11.7241 (NHSNCarbaDetectType) |
| @nullFlavor | 0..1 | MAY |  | [1129-30457](#C_1129-30457) | OTH |
| originalText | 0..1 | MAY |  | [1129-30458](#C_1129-30458) |  |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1129-30453).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1129-30454).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30442) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30448).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-30513) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.226" (CONF:1129-30514).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30515).
6. SHALL contain exactly one [1..1] id (CONF:1129-30443).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30450).
7. SHALL contain exactly one [1..1] code (CONF:1129-30459).
   1. This code SHALL contain exactly one [1..1] @code="2049-5" Carbapenemase Type Identified (CONF:1129-30460).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30461).
8. SHALL contain exactly one [1..1] statusCode (CONF:1129-30444).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CONF:1129-30451).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-30445).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30452).

If the type of carbapenemase is other than one specified in NHSNCarbaDetectType, use value/@nullFlavor="OTH" and enter the carbapenemase type in value/originalText.

1. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet [NHSNCarbaDetectType](#NHSNCarbaDetectType) urn:oid:2.16.840.1.114222.4.11.7241 DYNAMIC (CONF:1129-30447).
   1. This value MAY contain zero or one [0..1] @nullFlavor="OTH" (CONF:1129-30457).
   2. This value MAY contain zero or one [0..1] originalText (CONF:1129-30458).

Table 189: NHSNCarbaDetectType

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNCarbaDetectType urn:oid:2.16.840.1.114222.4.11.7241  (Clinical Focus: NHSN surveillance reporting: Types of carbapenemase detected in a bacterial isolate),(Data Element Scope: Coded observation value that represents a carbapenemase type identified when the bacterial isolate was tested.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7241/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2050-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Klebsiella pneumoniae carbapenemase |
| 2051-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | New Delhi metallo-beta-lactamase |
| 2052-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Imipenemase |
| 2053-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Verona integron-encoded metallo-beta-lactamase |
| 2054-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Oxacillinase-48-like |
| 2055-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Nonspecific carbapenemase activity |
| 2056-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Nonspecific metallo-beta-lactamase activity |

Figure 64: Carbapenemase Type Identified Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Type Identified Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.226"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code code="2049-5"

displayName="Carbapenemase Type Identified"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD" code="2052-9"

displayName="(IMP) Imipenemase"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

</observation>

Figure 65: Carbapenemase Type Identified Observation - Other Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Type Identified Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.226"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code code="2049-5"

displayName="Carbapenemase Type Identified"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD" nullFlavor="OTH">

<originalText>Other carbapenemase type not in value set</originalText>

</value>

</observation>

Central-Line Insertion Practice Clinical Statement (V2)

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01 (closed)]

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Table 190: Central-Line Insertion Practice Clinical Statement (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a CLIP Report (V2)](#S_Infection_Risk_Factors_Section_in_a_C) (required) | [Solutions Dried Observation](#E_Solutions_Dried_Observation) (required)  [Central-Line Insertion Preparation Organizer (V2)](#E_CentralLine_Insertion_Preparation_Org) (required) |

This clinical statement records whether specified infection-prevention actions were performed in a specified sequence.  
Recording sequence is expressed with the CDA entryRelationship/sequenceNumber feature. This follows the RIM modeling for definitions (e.g., of a protocol).  
A @negationInd on each step expresses whether the step did or did not occur in sequence.  
Below are the items, in sequence, to record within the Central-Line Insertion Practice Report:  
• preparation  
• hand hygiene  
• sterile barriers  
• skin solution(s) applied  
• skin solution(s) had dried

Table 191: Central-Line Insertion Practice Clinical Statement (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-22005](#C_1129-22005) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1129-22006](#C_1129-22006) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [1129-22007](#C_1129-22007) | false |
| templateId | 1..1 | SHALL |  | [1129-30516](#C_1129-30516) |  |
| @root | 1..1 | SHALL |  | [1129-30517](#C_1129-30517) | 2.16.840.1.113883.10.20.22.4.12 |
| templateId | 1..1 | SHALL |  | [1129-22965](#C_1129-22965) |  |
| @root | 1..1 | SHALL |  | [1129-28111](#C_1129-28111) | 2.16.840.1.113883.10.20.5.6.116 |
| @extension | 1..1 | SHALL |  | [1129-30518](#C_1129-30518) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-22966](#C_1129-22966) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-22968](#C_1129-22968) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| code | 1..1 | SHALL |  | [1129-22018](#C_1129-22018) |  |
| @code | 1..1 | SHALL |  | [1129-22019](#C_1129-22019) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 3108-8 |
| entryRelationship | 1..1 | SHALL |  | [1129-22008](#C_1129-22008) |  |
| @typeCode | 1..1 | SHALL |  | [1129-22009](#C_1129-22009) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| sequenceNumber | 1..1 | SHALL |  | [1129-22011](#C_1129-22011) |  |
| @value | 1..1 | SHALL |  | [1129-22012](#C_1129-22012) | 1 |
| organizer | 1..1 | SHALL |  | [1129-30425](#C_1129-30425) | [Central-Line Insertion Preparation Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01](#E_CentralLine_Insertion_Preparation_Org) |
| entryRelationship | 1..1 | SHALL |  | [1129-22013](#C_1129-22013) |  |
| @typeCode | 1..1 | SHALL |  | [1129-22014](#C_1129-22014) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| sequenceNumber | 1..1 | SHALL |  | [1129-22016](#C_1129-22016) |  |
| @value | 1..1 | SHALL |  | [1129-22017](#C_1129-22017) | 2 |
| observation | 1..1 | SHALL |  | [1129-22015](#C_1129-22015) | [Solutions Dried Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.163](#E_Solutions_Dried_Observation) |

1. Conforms to Procedure Activity Act template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.12).
2. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-22005).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-22006).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:1129-22007).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-30516) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.12" (CONF:1129-30517).
6. SHALL contain exactly one [1..1] templateId (CONF:1129-22965) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.116" (CONF:1129-28111).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30518).
7. SHALL contain exactly one [1..1] id (CONF:1129-22966).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1129-22968).
8. SHALL contain exactly one [1..1] code (CONF:1129-22018).
   1. This code SHALL contain exactly one [1..1] @code="3108-8" Central line insertion practice (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:1129-22019).
9. SHALL contain exactly one [1..1] entryRelationship (CONF:1129-22008) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1129-22009).
   2. SHALL contain exactly one [1..1] sequenceNumber (CONF:1129-22011).
      1. This sequenceNumber SHALL contain exactly one [1..1] @value="1" (CONF:1129-22012).
   3. SHALL contain exactly one [1..1] [Central-Line Insertion Preparation Organizer (V2)](#E_CentralLine_Insertion_Preparation_Org) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01) (CONF:1129-30425).
10. SHALL contain exactly one [1..1] entryRelationship (CONF:1129-22013) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1129-22014).
    2. SHALL contain exactly one [1..1] sequenceNumber (CONF:1129-22016).
       1. This sequenceNumber SHALL contain exactly one [1..1] @value="2" (CONF:1129-22017).
    3. SHALL contain exactly one [1..1] [Solutions Dried Observation](#E_Solutions_Dried_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.163) (CONF:1129-22015).

Figure 66: Central-Line Insertion Practice Clinical Statement (V2) Example

<act moodCode="EVN" classCode="ACT" negationInd="false">

<!-- C-CDA Procedure Activity Act templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.12" />

<!-- HAI Central-line Insertion Practice Clinical Statement (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.116"

extension="2014-12-01" />

<id nullFlavor="NA" />

<code code="3108-8"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Central line insertion practice" />

<entryRelationship typeCode="COMP">

<sequenceNumber value="1" />

<organizer moodCode="EVN" classCode="CLUSTER">

<!-- HAI Central-Line Insertion Preparation Organizer (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.179"

extension="2014-12-01" />

...

</organizer>

</entryRelationship>

<entryRelationship typeCode="COMP">

<sequenceNumber value="2" />

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- HAI Solutions Dried Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.163" />

...

</observation>

</entryRelationship>

</act>

Central-Line Insertion Preparation Organizer (V2)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01 (closed)]

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Table 192: Central-Line Insertion Preparation Organizer (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Central-Line Insertion Practice Clinical Statement (V2)](#E_CentralLine_Insertion_Practice_Clinic) (required) | [Sterile Barriers Applied Clinical Statement](#E_Sterile_Barriers_Applied_Clinical_Sta) (required)  [Hand Hygiene Performed Clinical Statement](#E_Hand_Hygiene_Performed_Clinical_State) (required)  [Skin-Preparation Solutions Applied Organizer (V2)](#E_SkinPreparation_Solutions_Applied_Org) (required) |

This organizer represents the first step in the central-line insertion practice sequence. It records three types of preparations (which may have occurred in any order): hand hygiene, skin-preparation solutions, and sterile barriers.

Table 193: Central-Line Insertion Preparation Organizer (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-22086](#C_1129-22086) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [1129-22087](#C_1129-22087) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-22088](#C_1129-22088) |  |
| @root | 1..1 | SHALL |  | [1129-22089](#C_1129-22089) | 2.16.840.1.113883.10.20.5.6.179 |
| @extension | 1..1 | SHALL |  | [1129-30279](#C_1129-30279) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-22090](#C_1129-22090) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-22733](#C_1129-22733) | NA |
| statusCode | 1..1 | SHALL |  | [1129-22091](#C_1129-22091) |  |
| @code | 1..1 | SHALL |  | [1129-23060](#C_1129-23060) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..1 | SHALL |  | [1129-22092](#C_1129-22092) |  |
| procedure | 1..1 | SHALL |  | [1129-23057](#C_1129-23057) | [Hand Hygiene Performed Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.130](#E_Hand_Hygiene_Performed_Clinical_State) |
| component | 1..1 | SHALL |  | [1129-22093](#C_1129-22093) |  |
| organizer | 1..1 | SHALL |  | [1129-30426](#C_1129-30426) | [Skin-Preparation Solutions Applied Organizer (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01](#E_SkinPreparation_Solutions_Applied_Org) |
| component | 1..1 | SHALL |  | [1129-22094](#C_1129-22094) |  |
| procedure | 1..1 | SHALL |  | [1129-23059](#C_1129-23059) | [Sterile Barriers Applied Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.167](#E_Sterile_Barriers_Applied_Clinical_Sta) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-22086).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-22087).
3. SHALL contain exactly one [1..1] templateId (CONF:1129-22088) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.179" (CONF:1129-22089).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30279).
4. SHALL contain exactly one [1..1] id (CONF:1129-22090).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22733).
5. SHALL contain exactly one [1..1] statusCode (CONF:1129-22091).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-23060).
6. SHALL contain exactly one [1..1] component (CONF:1129-22092) such that it
   1. SHALL contain exactly one [1..1] [Hand Hygiene Performed Clinical Statement](#E_Hand_Hygiene_Performed_Clinical_State) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.130) (CONF:1129-23057).
7. SHALL contain exactly one [1..1] component (CONF:1129-22093) such that it
   1. SHALL contain exactly one [1..1] [Skin-Preparation Solutions Applied Organizer (V2)](#E_SkinPreparation_Solutions_Applied_Org) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01) (CONF:1129-30426).
8. SHALL contain exactly one [1..1] component (CONF:1129-22094) such that it
   1. SHALL contain exactly one [1..1] [Sterile Barriers Applied Clinical Statement](#E_Sterile_Barriers_Applied_Clinical_Sta) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.167) (CONF:1129-23059).

Figure 67: Central-Line Insertion Preparation Organizer (V2) Example

<organizer moodCode="EVN" classCode="CLUSTER">

<templateId root="2.16.840.1.113883.10.20.5.6.179"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<statusCode code="completed"/>

<component>

<procedure moodCode="EVN" classCode="PROC" negationInd="false">

<!-- Hand hygiene performed -->

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14"/>

<!-- HAI Hand Hygiene Performed Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.130"/>

...

</procedure>

</component>

<component>

<organizer moodCode="EVN" classCode="CLUSTER">

<!—Skin Preparation Solutions Applied Organizer (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.183"

extension="2014-12-01"/>

...

</organizer>

</component>

<component>

<procedure moodCode="EVN" classCode="PROC" negationInd="false">

<!—Sterile Barriers Applied Clinical Statement -->

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14"/>

<!-- HAI Sterile Barriers Applied Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.167"/>

...

</procedure>

</component>

</organizer>

Closure Technique Procedure

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.117 (closed)]

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Table 194: Closure Technique Procedure Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Clinical Statement in a Procedure Report (V2)](#Procedure_Details_Clinical_Statement_in) (required) |  |

This procedure identifies the closure technique used in surgical procedures.

Table 195: Closure Technique Procedure Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.117) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21028](#C_86-21028) | PROC |
| @moodCode | 1..1 | SHALL |  | [86-21029](#C_86-21029) | EVN |
| templateId | 1..1 | SHALL |  | [86-28219](#C_86-28219) |  |
| @root | 1..1 | SHALL |  | [86-28220](#C_86-28220) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-21038](#C_86-21038) |  |
| @root | 1..1 | SHALL |  | [86-21039](#C_86-21039) | 2.16.840.1.113883.10.20.5.6.117 |
| id | 1..1 | SHALL |  | [86-21040](#C_86-21040) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22734](#C_86-22734) | NA |
| code | 1..1 | SHALL |  | [86-21032](#C_86-21032) |  |
| @code | 1..1 | SHALL |  | [86-21033](#C_86-21033) | 112695004 |
| @codeSystem | 1..1 | SHALL |  | [86-28352](#C_86-28352) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [86-21034](#C_86-21034) |  |
| @code | 1..1 | SHALL |  | [86-21035](#C_86-21035) | completed |
| methodCode | 1..1 | SHALL |  | [86-21036](#C_86-21036) | urn:oid:2.16.840.1.114222.4.11.6051 (NHSNClosureTechniqueCode) |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" (CONF:86-21028).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:86-21029).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28219) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28220).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21038) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.117" (CONF:86-21039).
6. SHALL contain exactly one [1..1] id (CONF:86-21040).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22734).
7. SHALL contain exactly one [1..1] code (CONF:86-21032).
   1. This code SHALL contain exactly one [1..1] @code="112695004" Surgical Closure (CONF:86-21033).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28352).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-21034).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CONF:86-21035).
9. SHALL contain exactly one [1..1] methodCode, which SHALL be selected from ValueSet [NHSNClosureTechniqueCode](#NHSNClosureTechniqueCode) urn:oid:2.16.840.1.114222.4.11.6051 DYNAMIC (CONF:86-21036).

Table 196: NHSNClosureTechniqueCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNClosureTechniqueCode urn:oid:2.16.840.1.114222.4.11.6051  (Clinical Focus: NHSN surveillance reporting: Used to distinguish between primary and non-primary surgical closure techniques),(Data Element Scope: A method code identifying the closure technique used in surgical procedures.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6051/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2406-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Primary |
| 2407-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Other than primary |

Figure 68: Closure Technique Procedure Example

<!-- Closure Technique Procedure -->

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Closure Technique Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.117" />

<id nullFlavor="NA" />

<code code="112695004"

displayName="Surgical Closure"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" />

<statusCode code="completed" />

<methodCode code="2406-7"

displayName="Primary"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</procedure>

Contraindicated Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01 (closed)]

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Table 197: Contraindicated Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Skin Preparation Clinical Statement (V2)](#E_Skin_Preparation_Clinical_Statement_V2) (optional) | [Contraindication Type Observation](#E_Contraindication_Type_Observation) (optional) |

This observation records whether the target statement was contraindicated.  
If the target statement was contraindicated, set the value of @negationInd to false. If the target statement was not contraindicated (i.e., ok to proceed with the treatment specified by the target statement), set the value of @negationInd to true. If it is not known whether the target statement was contraindicated, set the value of @nullFlavor to "UNK". If the skin preparation choice was not chlorhexidine and there was a contraindication to chlorhexidine, then the contraindication type is required.

Table 198: Contraindicated Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01) | | | | | |
| @nullFlavor | 0..1 | SHOULD |  | [1129-21778](#C_1129-21778) |  |
| @classCode | 1..1 | SHALL |  | [1129-21780](#C_1129-21780) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-21781](#C_1129-21781) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | SHOULD |  | [1129-21782](#C_1129-21782) |  |
| templateId | 1..1 | SHALL |  | [1129-30519](#C_1129-30519) |  |
| @root | 1..1 | SHALL |  | [1129-30520](#C_1129-30520) | 2.16.840.1.113883.10.20.22.4.19 |
| templateId | 1..1 | SHALL |  | [1129-21785](#C_1129-21785) |  |
| @root | 1..1 | SHALL |  | [1129-28109](#C_1129-28109) | 2.16.840.1.113883.10.20.5.6.118 |
| @extension | 1..1 | SHALL |  | [1129-30521](#C_1129-30521) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-21786](#C_1129-21786) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-21793](#C_1129-21793) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| code | 1..1 | SHALL |  | [1129-21787](#C_1129-21787) |  |
| @code | 1..1 | SHALL |  | [1129-21788](#C_1129-21788) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1129-30604](#C_1129-30604) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1129-21789](#C_1129-21789) |  |
| @code | 1..1 | SHALL |  | [1129-21790](#C_1129-21790) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1129-21791](#C_1129-21791) |  |
| @code | 1..1 | SHALL |  | [1129-21792](#C_1129-21792) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 410536001 |
| entryRelationship | 0..\* | MAY |  | [1129-28106](#C_1129-28106) |  |
| @typeCode | 1..1 | SHALL |  | [1129-28107](#C_1129-28107) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1129-30427](#C_1129-30427) | [Contraindication Type Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01](#E_Contraindication_Type_Observation) |

1. Conforms to Indication template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.19).
2. SHOULD contain zero or one [0..1] @nullFlavor (CONF:1129-21778).
   1. If it is not known whether the target statement was contraindicated, the value of @nullFlavor SHALL be UNK. If the value of @nullFlavor is set to UNK then the value of @negationInd SHALL NOT be set (CONF:1129-21779).
3. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-21780).
4. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-21781).
5. SHOULD contain zero or one [0..1] @negationInd (CONF:1129-21782).
   1. If the target statement was contraindicated, the value of @negationInd SHALL be false. If the target statement was not contraindicated (i.e., ok to proceed with the treatment specified by the target statement), the value of @negationInd SHALL be true. If the value of @negationInd is set then the value of @nullFlavor SHALL NOT be set (CONF:1129-21783).
6. SHALL contain exactly one [1..1] templateId (CONF:1129-30519) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.19" (CONF:1129-30520).
7. SHALL contain exactly one [1..1] templateId (CONF:1129-21785) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.118" (CONF:1129-28109).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30521).
8. SHALL contain exactly one [1..1] id (CONF:1129-21786).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1129-21793).
9. SHALL contain exactly one [1..1] code (CONF:1129-21787).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1129-21788).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30604).
10. SHALL contain exactly one [1..1] statusCode (CONF:1129-21789).
    1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-21790).
11. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1129-21791).
    1. This value SHALL contain exactly one [1..1] @code="410536001" Contraindicated (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:1129-21792).

If the skin preparation choice was not chlorhexidine and there was a contraindication to chlorhexidine, the following entryRelationship is required.

1. MAY contain zero or more [0..\*] entryRelationship (CONF:1129-28106) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-28107).
   2. SHALL contain exactly one [1..1] [Contraindication Type Observation](#E_Contraindication_Type_Observation) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01) (CONF:1129-30427).

Figure 69: Contraindicated Observation (V2) Example - Contraindicated

<!-- It is true (not negated) that the target statement was contraindicated -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Indication templateId-->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- HAI Contraindicated Observation (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.118"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="410536001"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" displayName="Contraindicated"/>

<entryRelationship typeCode="RSON">

<!-- Contraindication Type Observation -->

<observation moodCode="EVN" classCode="OBS">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- Contraindication Type Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.216"

extension="2014-12-01"/>

...

</observation>

</entryRelationship>

</observation>

Figure 70: Contraindicated Observation (V2) Example - Not contraindicated

<!-- It is false (negated) that the target statement was contraindicated -->

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- C-CDA Indication templateId-->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- HAI Contraindicated Observation (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.118"

extension="2014-12-01" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="410536001"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="Contraindicated"/>

</observation>

Contraindication Type Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01 (closed)]

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Table 199: Contraindication Type Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Contraindicated Observation (V2)](#E_Contraindicated_Observation_V2) (optional) |  |

This template represents the type of contraindication.

Table 200: Contraindication Type Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-5](#C_1129-5) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-6](#C_1129-6) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30522](#C_1129-30522) |  |
| @root | 1..1 | SHALL |  | [1129-30523](#C_1129-30523) | 2.16.840.1.113883.10.20.5.6.216 |
| @extension | 1..1 | SHALL |  | [1129-30524](#C_1129-30524) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-2](#C_1129-2) |  |
| @code | 1..1 | SHALL |  | [1129-8](#C_1129-8) | 6130-9 |
| @codeSystem | 1..1 | SHALL |  | [1129-9](#C_1129-9) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [1129-4](#C_1129-4) |  |
| @code | 1..1 | SHALL |  | [1129-12](#C_1129-12) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1129-10](#C_1129-10) | urn:oid:2.16.840.1.114222.4.11.7239 (NHSNContraindicationType) |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-5).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-6).
3. SHALL contain exactly one [1..1] templateId (CONF:1129-30522) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.216" (CONF:1129-30523).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30524).
4. SHALL contain exactly one [1..1] code (CONF:1129-2).
   1. This code SHALL contain exactly one [1..1] @code="6130-9" Contraindication type (CONF:1129-8).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:1129-9).
5. SHALL contain exactly one [1..1] statusCode (CONF:1129-4).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-12).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNContraindicationType](#NHSNContraindicationType) urn:oid:2.16.840.1.114222.4.11.7239 DYNAMIC (CONF:1129-10).

Table 201: NHSNContraindicationType

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNContraindicationType urn:oid:2.16.840.1.114222.4.11.7239  (Clinical Focus: NHSN surveillance reporting: Contraindication for using chlorhexidine gluconate (CHG) for Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A coded observation value representing the type of contraindication.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7239/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 6131-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Patient is less than 2 months of age - chlorhexidine gluconate is to be used with caution in patients less than 2 months of age |
| 6132-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Patient has a documented/known allergy/reaction to chlorhexidine gluconate-based products that would preclude its use |
| 6133-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Facility restrictions or safety concerns for chlorhexidine gluconate use in premature infants precludes its use |

Figure 71: Contraindication Type Observation Example

<observation moodCode="EVN" classCode="OBS">

<!-- Contraindication Type Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.216"

extension="2014-12-01" />

<code code="6130-9"

displayName="Contraindication type"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="6133-3"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Facility restrictions or safety concerns for CHG use in

premature infants precludes its use"/>

</observation>

Criteria of Diagnosis Organizer

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.5.6.180 (closed)]

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Table 202: Criteria of Diagnosis Organizer Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection-Type Observation](#E_InfectionType_Observation) (required)  [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (required)  [Infection-Type Observation in an OPC SSI Event](#E_InfectionType_Observation_in_an_OPC_S) (required) | [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) (required) |

This organizer groups together the criteria used in the diagnosis of an infection or the identification of an adverse reaction. Each criterion is recorded as a Criterion of Diagnosis Observation.

The Criteria of Diagnosis Organizer is used in several report types. The NHSN protocol specifies which criteria are to be recorded for each report type. Those rules do not form part of this template. The NHSN submission requirement is that, in a given report type, a Criterion of Diagnosis Observation must be present for every datum required by the NHSN protocol for that report type, with an appropriate value for @negationInd.

In an Evidence of Infection (Dialysis) Report, to record that none of the criteria of diagnosis was present, set the value of the observation/@negationInd to true for each criterion required in this report.

Table 203: Criteria of Diagnosis Organizer Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22101](#C_86-22101) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [86-22102](#C_86-22102) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22103](#C_86-22103) |  |
| @root | 1..1 | SHALL |  | [86-22104](#C_86-22104) | 2.16.840.1.113883.10.20.5.6.180 |
| statusCode | 1..1 | SHALL |  | [86-22106](#C_86-22106) |  |
| @code | 1..1 | SHALL |  | [86-23061](#C_86-23061) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..\* | SHALL |  | [86-22107](#C_86-22107) |  |
| observation | 1..1 | SHALL |  | [86-23062](#C_86-23062) | [Criterion of Diagnosis Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.119](#E_Criterion_of_Diagnosis_Observation) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22101).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22102).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22103) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.180" (CONF:86-22104).
4. SHALL contain exactly one [1..1] statusCode (CONF:86-22106).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-23061).
5. SHALL contain at least one [1..\*] component (CONF:86-22107).
   1. Such components SHALL contain exactly one [1..1] [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.119) (CONF:86-23062).

Figure 72: Criteria of Diagnosis Organizer Example

<organizer classCode="CLUSTER" moodCode="EVN”>

<templateId root=”2.16.840.1.113883.10.20.5.6.180”/>

<statusCode code="completed"/>

<component>

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Indication templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- HAI Criteria of Diagnosis Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.119"/>

...

</observation>

</component>

...

</organizer>

Criterion of Diagnosis Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.119 (closed)]

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Table 204: Criterion of Diagnosis Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) (required) |  |

This observation records a criterion used in the diagnosis of the infection type or the identification of an adverse reaction. It appears within the Criterion of Diagnosis Organizer. In infection-type reports it is used with the Criterion of Diagnosis vocabulary.

If the criterion was present, set the value of @negationInd to false. If the criterion was not present, set the value of @negationInd to true.

The NHSN protocol specifies which Criterion of Diagnosis Observations must appear in each report type for which they are required. Those rules do not form part of this template.

Table 205: Criterion of Diagnosis Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.119) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22126](#C_86-22126) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22127](#C_86-22127) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-22128](#C_86-22128) |  |
| templateId | 1..1 | SHALL |  | [86-28221](#C_86-28221) |  |
| @root | 1..1 | SHALL |  | [86-28222](#C_86-28222) | 2.16.840.1.113883.10.20.22.4.19 |
| templateId | 1..1 | SHALL |  | [86-22129](#C_86-22129) |  |
| @root | 1..1 | SHALL |  | [86-22140](#C_86-22140) | 2.16.840.1.113883.10.20.5.6.119 |
| id | 1..1 | SHALL |  | [86-22130](#C_86-22130) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22736](#C_86-22736) | NA |
| code | 1..1 | SHALL |  | [86-22131](#C_86-22131) |  |
| @code | 1..1 | SHALL |  | [86-22132](#C_86-22132) | ASSERTION |
| @codeSystem | 0..1 | MAY |  | [86-28373](#C_86-28373) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-22133](#C_86-22133) |  |
| @code | 1..1 | SHALL |  | [86-22134](#C_86-22134) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [86-22135](#C_86-22135) |  |

1. Conforms to Indication template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.19).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22126).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22127).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-22128).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28221) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.19" (CONF:86-28222).
6. SHALL contain exactly one [1..1] templateId (CONF:86-22129) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.119" (CONF:86-22140).
7. SHALL contain exactly one [1..1] id (CONF:86-22130).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22736).
8. SHALL contain exactly one [1..1] code (CONF:86-22131).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-22132).
   2. This code MAY contain zero or one [0..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28373).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-22133).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-22134).
10. SHALL contain exactly one [1..1] value (CONF:86-22135).
    1. In an infection-type report, a criterion is reported as a code. The value of @xsi:type SHALL be CD and the value of @code SHALL be selected from Value Set 2.16.840.1.114222.4.11.3195 NHSNCriterionOfDiagnosisCode DYNAMIC (CONF:86-22136).
    2. In an Evidence of Infection (Dialysis) Report, (CONF:86-22137).
       1. To record a criterion of diagnosis as a code, the value of @xsi:type SHALL be CD and the value of @code SHALL be selected from Value Set 2.16.840.1.114222.4.11.3195 NHSNCriterionOfDiagnosisCode DYNAMIC (CONF:86-22138).
       2. To record a criterion not included in the NHSNCriterionOfDiagnosisCode value set, the value of @xsi:type SHALL be ST and a text value SHALL be present (CONF:86-22139).

Table 206: NHSNCriterionOfDiagnosisCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNCriterionOfDiagnosisCode urn:oid:2.16.840.1.114222.4.11.3195  (Clinical Focus: NHSN surveillance reporting: Criteria used to diagnose an infection type or identify an adverse reaction),(Data Element Scope: A coded observation value that records a criterion used in the diagnosis of the infection type or the identification of an adverse reaction.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3195/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1023001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Apnea (finding) |
| 102830001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Renal angle tenderness (finding) |
| 123767004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Hemoglobinemia (disorder) |
| 126485001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Urticaria (disorder) |
| 12763006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Finding of decreased blood pressure (finding) |
| 128045006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Cellulitis (disorder) |
| 128477000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Abscess (disorder) |
| 128601007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Infectious disease of lung (disorder) |
| 161891005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Backache (finding) |
| 162053006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Suprapubic pain (finding) |
| ... | | | |

Figure 73: Criterion of Diagnosis Observation Examples

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Indication templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- HAI Criteria of Diagnosis Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.119"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code=”ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

code="255320000"

displayName="Purulent drainage"/>

</observation>

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- C-CDA Indication templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- HAI Criteria of Diagnosis Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.119"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

code="386661006"

displayName="Fever"/>

<!-- In the EOID Report, if there is no applicable

coded value, a text string can be used:

<value xsi:type="ST">An itchy sensation</value>

-->

</observation>

Death Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.120 (closed)]

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Table 207: Death Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details Section in a BSI Report](#S_Infection_Details_Section_in_a_BSI_Re) (optional)  [Infection Details Section in a UTI Report](#S_Infection_Details_Section_in_a_UTI_Re) (optional)  [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) (optional)  [Infection Details Section in a VAE Report](#S_Infection_Details_Section_in_a_VAE_Re) (required)  [Infection Details in Late Onset Sepsis Report](#S_Infection_Details_in_Late_Onset_Sepsi) (required) | [Infection Contributed to Death Observation](#E_Infection_Contributed_to_Death_Observ) (optional) |

This observation records whether the patient died and, if so, whether the infection being recorded contributed to that death.

If the patient died, set the value of @negationInd to false. If the patient did not die, set the value of @negationInd to true.

If the patient died, the Death Observation must also indicate whether the infection contributed to the death using an entryRelationship element containing an Infection Contributed to Death Observation. An inversionInd attribute on this entryRelationship element indicates that it should be interpreted as if the roles of the source and target entries were reversed. Thus, the observation reports whether the infection “supported” (contributed to) the death. The CAUS value does not have the force of “cause of death” on a death certificate; it indicates that the infection is causal or contributory to the death.

Table 208: Death Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.120) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19611](#C_86-19611) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19612](#C_86-19612) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19613](#C_86-19613) |  |
| templateId | 1..1 | SHALL |  | [86-28223](#C_86-28223) |  |
| @root | 1..1 | SHALL |  | [86-28224](#C_86-28224) | 2.16.840.1.113883.10.20.22.4.79 |
| templateId | 1..1 | SHALL |  | [86-19623](#C_86-19623) |  |
| @root | 1..1 | SHALL |  | [86-19624](#C_86-19624) | 2.16.840.1.113883.10.20.5.6.120 |
| id | 1..1 | SHALL |  | [86-19625](#C_86-19625) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22739](#C_86-22739) | NA |
| code | 1..1 | SHALL |  | [86-19614](#C_86-19614) |  |
| @code | 1..1 | SHALL |  | [86-19615](#C_86-19615) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28374](#C_86-28374) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19616](#C_86-19616) |  |
| @code | 1..1 | SHALL |  | [86-19617](#C_86-19617) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-19626](#C_86-19626) |  |
| low | 1..1 | SHALL |  | [86-19627](#C_86-19627) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22740](#C_86-22740) | NA |
| value | 1..1 | SHALL | CD | [86-19618](#C_86-19618) |  |
| @code | 1..1 | SHALL |  | [86-19619](#C_86-19619) | 419099009 |
| @codeSystem | 1..1 | SHALL |  | [86-28353](#C_86-28353) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| entryRelationship | 0..1 | MAY |  | [86-23063](#C_86-23063) |  |
| @typeCode | 1..1 | SHALL |  | [86-23064](#C_86-23064) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = CAUS |
| @inversionInd | 1..1 | SHALL |  | [86-23065](#C_86-23065) | true |
| @negationInd | 1..1 | SHALL |  | [86-23066](#C_86-23066) |  |
| observation | 1..1 | SHALL |  | [86-23068](#C_86-23068) | [Infection Contributed to Death Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.136](#E_Infection_Contributed_to_Death_Observ) |

1. Conforms to Deceased Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.79).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19611).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19612).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-19613).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28223) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.79" (CONF:86-28224).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19623) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.120" (CONF:86-19624).
7. SHALL contain exactly one [1..1] id (CONF:86-19625).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22739).
8. SHALL contain exactly one [1..1] code (CONF:86-19614).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19615).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28374).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19616).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19617).
10. SHALL contain exactly one [1..1] effectiveTime (CONF:86-19626).
    1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-19627).
       1. This low SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22740).
11. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-19618).
    1. This value SHALL contain exactly one [1..1] @code="419099009" Dead (CONF:86-19619).
    2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28353).
12. MAY contain zero or one [0..1] entryRelationship (CONF:86-23063).
    1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="CAUS" is etiology for (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23064).
    2. The entryRelationship, if present, SHALL contain exactly one [1..1] @inversionInd="true" (CONF:86-23065).
    3. The entryRelationship, if present, SHALL contain exactly one [1..1] @negationInd (CONF:86-23066).
       1. If the infection contributed to death, set the value of @negationInd to false. If the infection did not contribute to the death, set the value of @negationInd to true (CONF:86-23067).
    4. The entryRelationship, if present, SHALL contain exactly one [1..1] [Infection Contributed to Death Observation](#E_Infection_Contributed_to_Death_Observ) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.136) (CONF:86-23068).
    5. If the patient died, an entryRelationship element SHALL be present and SHALL contain an Infection Contributed to Death Observation (CONF:86-23069).

Figure 74: Death Observation Example

<!-- "Dead" is not negated = patient died -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Deceased Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.79"/>

<!-- HAI Death Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.120"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION"/>

<statusCode code="completed"/>

<effectiveTime>

<low nullFlavor="NA"/>

</effectiveTime>

<value xsi:type="CD"

code="419099009"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="Dead"/>

<!-- The infection did contribute to the death (causality is not negated) -->

<entryRelationship typeCode=”CAUS” inversionInd=”true” negationInd=”false”>

<observation classCode=”OBS” moodCode=”EVN”>

<!-- Infection Contributed to Death Observation templateId -->

<templateId root=”2.16.840.1.113883.10.20.5.6.136”/>

...

</observation>

</entryRelationship>

</observation>

Death Observation in an Evidence of Infection (Dialysis) Report

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.121 (closed)]

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Table 209: Death Observation in an Evidence of Infection (Dialysis) Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (required) |  |

This observation records whether the outpatient died subsequent to the observation of an infection indicator.

When the patient died, set the value of @negationInd to false. When the patient did not die, set the value of @negationInd to true. When it is unknown whether the patient died, set the value of @nullFlavor to NI.

Table 210: Death Observation in an Evidence of Infection (Dialysis) Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.121) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [86-19644](#C_86-19644) |  |
| @classCode | 1..1 | SHALL |  | [86-19628](#C_86-19628) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19629](#C_86-19629) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [86-19645](#C_86-19645) |  |
| templateId | 1..1 | SHALL |  | [86-28225](#C_86-28225) |  |
| @root | 1..1 | SHALL |  | [86-28226](#C_86-28226) | 2.16.840.1.113883.10.20.22.4.79 |
| templateId | 1..1 | SHALL |  | [86-19639](#C_86-19639) |  |
| @root | 1..1 | SHALL |  | [86-19640](#C_86-19640) | 2.16.840.1.113883.10.20.5.6.121 |
| id | 1..1 | SHALL |  | [86-19641](#C_86-19641) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22742](#C_86-22742) | NA |
| code | 1..1 | SHALL |  | [86-19630](#C_86-19630) |  |
| @code | 1..1 | SHALL |  | [86-19631](#C_86-19631) | ASSERTION |
| @codeSystem | 0..1 | MAY |  | [86-28375](#C_86-28375) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19632](#C_86-19632) |  |
| @code | 1..1 | SHALL |  | [86-19633](#C_86-19633) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-19642](#C_86-19642) |  |
| low | 1..1 | SHALL |  | [86-19643](#C_86-19643) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22743](#C_86-22743) | NA |
| value | 1..1 | SHALL | CD | [86-19634](#C_86-19634) |  |
| @code | 1..1 | SHALL |  | [86-19635](#C_86-19635) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 419099009 |

1. Conforms to Deceased Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.79).
2. MAY contain zero or one [0..1] @nullFlavor (CONF:86-19644).
   1. If @negationInd is present then @nullFlavor SHALL NOT contain a value (CONF:86-19646).
3. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19628).
4. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19629).
5. MAY contain zero or one [0..1] @negationInd (CONF:86-19645).
   1. If @nullFlavor is present then @negationInd SHALL NOT contain a value (CONF:86-19647).
6. SHALL contain exactly one [1..1] templateId (CONF:86-28225) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.79" (CONF:86-28226).
7. SHALL contain exactly one [1..1] templateId (CONF:86-19639) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.121" (CONF:86-19640).
8. SHALL contain exactly one [1..1] id (CONF:86-19641).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22742).
9. SHALL contain exactly one [1..1] code (CONF:86-19630).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19631).
   2. This code MAY contain zero or one [0..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28375).
10. SHALL contain exactly one [1..1] statusCode (CONF:86-19632).
    1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19633).
11. SHALL contain exactly one [1..1] effectiveTime (CONF:86-19642).
    1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-19643).
       1. This low SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22743).
12. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-19634).
    1. This value SHALL contain exactly one [1..1] @code="419099009" Dead (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-19635).
13. SHALL contain either @nullFlavor or @negationInd, but SHALL NOT contain both (CONF:86-19648).

Figure 75: Death Observation in an EOID Report Example

<!-- There is no information about whether the patient has died -->

<observation classCode="OBS" moodCode="EVN" nullFlavor="NI">

<!-- C-CDA Deceased Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.79"/>

<!-- HAI Death Observation in an Evidence of Infection (Dialysis) Report -->

<templateId root="2.16.840.1.113883.10.20.5.6.121"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION"/>

<statusCode code="completed"/>

<effectiveTime>

<low nullFlavor="NA"/>

</effectiveTime>

<value xsi:type="CD"

code="419099009"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="Dead"/>

</observation>

Device Insertion Time and Location Procedure

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.122 (closed)]

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Table 211: Device Insertion Time and Location Procedure Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) (optional)  [Urinary Catheter Observation](#E_Urinary_Catheter_Observation) (optional) |  |

This clinical statement records the location of the patient and the time when the device was inserted.

Table 212: Device Insertion Time and Location Procedure Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21041](#C_86-21041) | PROC |
| @moodCode | 1..1 | SHALL |  | [86-21042](#C_86-21042) | EVN |
| templateId | 1..1 | SHALL |  | [86-28227](#C_86-28227) |  |
| @root | 1..1 | SHALL |  | [86-28228](#C_86-28228) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-21063](#C_86-21063) |  |
| @root | 1..1 | SHALL |  | [86-21064](#C_86-21064) | 2.16.840.1.113883.10.20.5.6.122 |
| id | 1..1 | SHALL |  | [86-21065](#C_86-21065) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22744](#C_86-22744) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| code | 1..1 | SHALL |  | [86-21044](#C_86-21044) |  |
| @code | 1..1 | SHALL |  | [86-21066](#C_86-21066) | 71861002 |
| @codeSystem | 1..1 | SHALL |  | [86-28103](#C_86-28103) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [86-21046](#C_86-21046) |  |
| @code | 1..1 | SHALL |  | [86-28106](#C_86-28106) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-21047](#C_86-21047) |  |
| low | 1..1 | SHALL |  | [86-21048](#C_86-21048) |  |
| participant | 0..\* | MAY |  | [86-21049](#C_86-21049) |  |
| @typeCode | 1..1 | SHALL |  | [86-21050](#C_86-21050) | LOC |
| participantRole | 1..1 | SHALL |  | [86-21051](#C_86-21051) |  |
| @classCode | 1..1 | SHALL |  | [86-21052](#C_86-21052) | SDLOC |
| id | 1..1 | SHALL |  | [86-21053](#C_86-21053) |  |
| @root | 1..1 | SHALL |  | [86-21054](#C_86-21054) |  |
| @extension | 1..1 | SHALL |  | [86-21056](#C_86-21056) |  |
| playingEntity | 1..1 | SHALL |  | [86-21057](#C_86-21057) |  |
| @classCode | 1..1 | SHALL |  | [86-21058](#C_86-21058) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| code | 1..1 | SHALL |  | [86-21059](#C_86-21059) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" (CONF:86-21041).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:86-21042).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28227) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28228).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21063) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.122" (CONF:86-21064).
6. SHALL contain exactly one [1..1] id (CONF:86-21065).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-22744).
7. SHALL contain exactly one [1..1] code (CONF:86-21044).
   1. This code SHALL contain exactly one [1..1] @code="71861002" Insertion procedure (CONF:86-21066).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28103).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-21046).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28106).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21047).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-21048).
10. MAY contain zero or more [0..\*] participant (CONF:86-21049).
    1. The participant, if present, SHALL contain exactly one [1..1] @typeCode="LOC" (CONF:86-21050).
    2. The participant, if present, SHALL contain exactly one [1..1] participantRole (CONF:86-21051).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" (CONF:86-21052).
       2. This participantRole SHALL contain exactly one [1..1] id (CONF:86-21053).
          1. This id SHALL contain exactly one [1..1] @root (CONF:86-21054).
             1. This id/@root SHALL contain the facility identifier (CONF:86-21055).
          2. This id SHALL contain exactly one [1..1] @extension (CONF:86-21056).
       3. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:86-21057).
          1. This playingEntity SHALL contain exactly one [1..1] @classCode="PLC" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:86-21058).
          2. This playingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:86-21059).

Figure 76: Device Insertion Time and Location Procedure Example

<!-- Device Insertion Time and Location Procedure -->

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Device Insertion Time and Location Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.122" />

<id nullFlavor="NA" />

<code code="71861002"

displayName="Insertion procedure"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" />

<statusCode code="completed" />

<effectiveTime>

<low value="20120808" />

</effectiveTime>

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<!-- root = facility assigned OID; extension = NHSN location ("your code") -->

<id root="2.16.840.1.114222.4.3.2.11" extension="123456" />

<playingEntity classCode="PLC">

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthcareServiceLocation"

code="1029-8"

displayName="Medical/Surgical Critical Care" />

</playingEntity>

</participantRole>

</participant>

</procedure>

Diabetes Mellitus Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.123 (closed)]

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Table 213: Diabetes Mellitus Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (required)  [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) (required) |  |

This observation records whether the person had diabetes mellitus.  
If the person did have diabetes, set the value of @negationInd to false. If the person did not have diabetes mellitus, set the value of @negationInd to true.

Table 214: Diabetes Mellitus Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.123) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21000](#C_86-21000) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21001](#C_86-21001) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21002](#C_86-21002) |  |
| templateId | 1..1 | SHALL |  | [86-28229](#C_86-28229) |  |
| @root | 1..1 | SHALL |  | [86-28230](#C_86-28230) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21005](#C_86-21005) |  |
| @root | 1..1 | SHALL |  | [86-21006](#C_86-21006) | 2.16.840.1.113883.10.20.5.6.123 |
| id | 1..1 | SHALL |  | [86-21007](#C_86-21007) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22745](#C_86-22745) | NA |
| code | 1..1 | SHALL |  | [86-21008](#C_86-21008) |  |
| @code | 1..1 | SHALL |  | [86-21009](#C_86-21009) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28376](#C_86-28376) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21010](#C_86-21010) |  |
| @code | 1..1 | SHALL |  | [86-21011](#C_86-21011) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21012](#C_86-21012) |  |
| @code | 1..1 | SHALL | CS | [86-21013](#C_86-21013) | 73211009 |
| @codeSystem | 1..1 | SHALL |  | [86-28354](#C_86-28354) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21000).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21001).

If the person did have diabetes, set the value of @negationInd to false. If the person did not have diabetes mellitus, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:86-21002).
2. SHALL contain exactly one [1..1] templateId (CONF:86-28229) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28230).
3. SHALL contain exactly one [1..1] templateId (CONF:86-21005) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.123" (CONF:86-21006).
4. SHALL contain exactly one [1..1] id (CONF:86-21007).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22745).
5. SHALL contain exactly one [1..1] code (CONF:86-21008).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21009).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28376).
6. SHALL contain exactly one [1..1] statusCode (CONF:86-21010).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21011).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21012).
   1. This value SHALL contain exactly one [1..1] @code="73211009" Diabetes mellitus (CONF:86-21013).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28354).

Figure 77: Diabetes Mellitus Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Diabetes Mellitus Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.123"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="73211009"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="Diabetes mellitus"/>

</observation>

Dialysis Clinic Admission Clinical Statement

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.124 (closed)]

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Table 215: Dialysis Clinic Admission Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (required) |  |

This statement records whether the patient was (re)admitted to the dialysis facility on the same day as, or after, the dialysis event. The infection (dialysis event) observation is specified in the entryRelationship/observation/value element.  
If the infection (dialysis event) began on or after the date the patient was admitted, set the value of entryRelationship/@inversionInd to true. If the infection (dialysis event) began before the date the patient was admitted, set the value of entryRelationship/@inversionInd to false.

Table 216: Dialysis Clinic Admission Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.124) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-23263](#C_86-23263) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [86-23264](#C_86-23264) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-23265](#C_86-23265) |  |
| @root | 1..1 | SHALL |  | [86-23266](#C_86-23266) | 2.16.840.1.113883.10.20.5.6.124 |
| id | 1..1 | SHALL |  | [86-23267](#C_86-23267) |  |
| entryRelationship | 1..1 | SHALL |  | [86-23269](#C_86-23269) |  |
| @typeCode | 1..1 | SHALL |  | [86-23272](#C_86-23272) | SAS |
| @inversionInd | 1..1 | SHALL |  | [86-23273](#C_86-23273) |  |
| observation | 1..1 | SHALL |  | [86-23275](#C_86-23275) |  |
| @classCode | 1..1 | SHALL |  | [86-23276](#C_86-23276) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-23277](#C_86-23277) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| id | 1..1 | SHALL |  | [86-23278](#C_86-23278) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-27747](#C_86-27747) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| code | 1..1 | SHALL |  | [86-23280](#C_86-23280) |  |
| @code | 1..1 | SHALL |  | [86-23281](#C_86-23281) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-23282](#C_86-23282) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-23283](#C_86-23283) |  |
| @code | 1..1 | SHALL |  | [86-23284](#C_86-23284) | completed |
| value | 1..1 | SHALL | CD | [86-23285](#C_86-23285) |  |
| @code | 1..1 | SHALL |  | [86-27748](#C_86-27748) | 40733004 |
| @codeSystem | 1..1 | SHALL |  | [86-27749](#C_86-27749) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. SHALL contain exactly one [1..1] @classCode="ENC" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-23263).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-23264).
3. SHALL contain exactly one [1..1] templateId (CONF:86-23265) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.124" (CONF:86-23266).
4. SHALL contain exactly one [1..1] id (CONF:86-23267).
   1. This is the id of the encompassing encounter (CONF:86-23268).
5. SHALL contain exactly one [1..1] entryRelationship (CONF:86-23269).
   1. This entryRelationship SHALL contain exactly one [1..1] @typeCode="SAS" (CONF:86-23272).
   2. This entryRelationship SHALL contain exactly one [1..1] @inversionInd (CONF:86-23273).
      1. If the infection (dialysis event) began on or after the date the patient was admitted, set the value of @inversionInd to true. If the infection (dialysis event) began before the date the patient was admitted, set the value of @inversionInd to false (CONF:86-23274).
   3. This entryRelationship SHALL contain exactly one [1..1] observation (CONF:86-23275).
      1. This observation SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-23276).
      2. This observation SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-23277).
      3. This observation SHALL contain exactly one [1..1] id (CONF:86-23278).
         1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-27747).
      4. This observation SHALL contain exactly one [1..1] code (CONF:86-23280).
         1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:86-23281).
         2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-23282).
      5. This observation SHALL contain exactly one [1..1] statusCode (CONF:86-23283).
         1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CONF:86-23284).
      6. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-23285).
         1. This value SHALL contain exactly one [1..1] @code="40733004" Infection (CONF:86-27748).
         2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-27749).

Figure 78: Dialysis Clinic Admission Clinical Statement Example

<encounter classCode="ENC" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.124" />

<!-- the id of the encompassingEncounter -->

<!-- Facility-generated Event/Procedure number -->

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.3" extension="31" />

<entryRelationship typeCode="SAS" inversionInd="true">

<observation classCode="OBS" moodCode="EVN">

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="40733004"

codeSystem="2.16.840.1.113883.6.96"

displayName="Infection" />

</observation>

</entryRelationship>

</encounter>

Dialysis Patient Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.125 (closed)]

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Table 217: Dialysis Patient Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)](#S_Risk_Factors_Section_in_an_Evidence_V2) (required) | [Transient Patient Observation](#E_Transient_Patient_Observation) (required) |

This observation records that the patient is a maintenance hemodialysis patient. It is used in the Evidence of Infection (Dialysis) Report.  
These reports are submitted for outpatients for whom an infection indicator is observed. The encounter is recorded in the CDA header as being an outpatient encounter

Table 218: Dialysis Patient Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.125) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21747](#C_86-21747) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21748](#C_86-21748) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21749](#C_86-21749) | false |
| templateId | 1..1 | SHALL |  | [86-28231](#C_86-28231) |  |
| @root | 1..1 | SHALL |  | [86-28232](#C_86-28232) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21752](#C_86-21752) |  |
| @root | 1..1 | SHALL |  | [86-21753](#C_86-21753) | 2.16.840.1.113883.10.20.5.6.125 |
| id | 1..1 | SHALL |  | [86-21754](#C_86-21754) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22747](#C_86-22747) | NA |
| code | 1..1 | SHALL |  | [86-21755](#C_86-21755) |  |
| @code | 1..1 | SHALL |  | [86-21756](#C_86-21756) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28377](#C_86-28377) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21757](#C_86-21757) |  |
| @code | 1..1 | SHALL |  | [86-21758](#C_86-21758) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21759](#C_86-21759) |  |
| @code | 1..1 | SHALL |  | [86-21760](#C_86-21760) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 236435004 |
| entryRelationship | 1..1 | SHALL |  | [86-21761](#C_86-21761) |  |
| @typeCode | 1..1 | SHALL |  | [86-21762](#C_86-21762) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-21763](#C_86-21763) | [Transient Patient Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.169](#E_Transient_Patient_Observation) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21747).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21748).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-21749).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28231) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28232).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21752) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.125" (CONF:86-21753).
7. SHALL contain exactly one [1..1] id (CONF:86-21754).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22747).
8. SHALL contain exactly one [1..1] code (CONF:86-21755).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21756).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28377).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21757).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21758).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21759).
    1. This value SHALL contain exactly one [1..1] @code="236435004" End-stage renal failure, on dialysis (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-21760).
11. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21761) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21762).
    2. SHALL contain exactly one [1..1] [Transient Patient Observation](#E_Transient_Patient_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.169) (CONF:86-21763).

Figure 79: Dialysis Patient Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Dialysis Patient Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.125"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="236435004"

displayName="End-stage renal failure, on dialysis"/>

<!-- Transient Patient Observation -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Transient Patient Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.169 "/>

...

</observation>

</entryRelationship>

</observation>

Dialyzer Reused Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.231:2015-10-01 (closed)]

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Table 219: Dialyzer Reused Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)](#S_Risk_Factors_Section_in_an_Evidence_V2) (required) |  |

This observation records whether the patient's dialyzer is reprocessed for reuse or whether a new dialyzer is used for each hemodialysis treatment.

When the patient's dialyzer is reused, set the value of @negationInd to false. When the patient's dialyzer is not reused, set the value of @negationInd to true.

Table 220: Dialyzer Reused Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.231:2015-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1202-4](#C_1202-4) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1202-5](#C_1202-5) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [1202-30547](#C_1202-30547) |  |
| templateId | 1..1 | SHALL |  | [1202-1](#C_1202-1) |  |
| @root | 1..1 | SHALL |  | [1202-6](#C_1202-6) | 2.16.840.1.113883.10.20.5.6.231 |
| @extension | 1..1 | SHALL |  | [1202-7](#C_1202-7) | 2015-10-01 |
| code | 1..1 | SHALL |  | [1202-2](#C_1202-2) |  |
| @code | 1..1 | SHALL |  | [1202-8](#C_1202-8) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1202-9](#C_1202-9) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1202-12](#C_1202-12) |  |
| @code | 1..1 | SHALL |  | [1202-13](#C_1202-13) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1202-3](#C_1202-3) |  |
| @code | 1..1 | SHALL |  | [1202-10](#C_1202-10) | 2334-1 |
| @codeSystem | 1..1 | SHALL |  | [1202-11](#C_1202-11) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1202-4).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1202-5).

When the patient's dialyzer is reused, set the value of @negationInd to false. When the patient's dialyzer is not reused, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:1202-30547).
2. SHALL contain exactly one [1..1] templateId (CONF:1202-1) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.231" (CONF:1202-6).
   2. SHALL contain exactly one [1..1] @extension="2015-10-01" (CONF:1202-7).
3. SHALL contain exactly one [1..1] code (CONF:1202-2).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1202-8).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1202-9).
4. SHALL contain exactly one [1..1] statusCode (CONF:1202-12).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1202-13).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1202-3).
   1. This value SHALL contain exactly one [1..1] @code="2334-1" Patient's dialyzer is reused (CONF:1202-10).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1202-11).

Figure 80: Dialyzer Reused Observation Example

<!-- When the patient's dialyzer is reused, set the value of @negationInd to false.

When the patient's dialyzer is not reused, set the value of @negationInd to true. -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- Dialyzer Reused Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.231"

extension="2015-10-01"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />

<statusCode code="completed" />

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2334-1"

displayName="Patient's dialyzer is reused" />

</observation>

Drug-Susceptibility Test Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.126 (closed)]

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Table 221: Drug-Susceptibility Test Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Findings Organizer](#E_Findings_Organizer) (optional) |  |

This observation uses two codes: one to identify the drug and the other to record the pathogen’s susceptibility to it. A LOINC code represents a methodless isolate drug-susceptibility test; an HL7 ObservationInterpretation code represents the susceptibility finding.

Table 222: Drug-Susceptibility Test Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.126) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21014](#C_86-21014) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21015](#C_86-21015) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28233](#C_86-28233) |  |
| @root | 1..1 | SHALL |  | [86-28234](#C_86-28234) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [86-21018](#C_86-21018) |  |
| @root | 1..1 | SHALL |  | [86-21019](#C_86-21019) | 2.16.840.1.113883.10.20.5.6.126 |
| id | 1..1 | SHALL |  | [86-21020](#C_86-21020) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22748](#C_86-22748) | NA |
| code | 1..1 | SHALL |  | [86-21021](#C_86-21021) | urn:oid:2.16.840.1.113883.13.15 (NHSNDrugSusceptibilityTestsCode) |
| statusCode | 1..1 | SHALL |  | [86-21023](#C_86-21023) |  |
| @code | 1..1 | SHALL |  | [86-21024](#C_86-21024) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-21025](#C_86-21025) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22749](#C_86-22749) | NA |
| value | 1..1 | SHALL |  | [86-28406](#C_86-28406) |  |
| interpretationCode | 1..1 | SHALL |  | [86-21026](#C_86-21026) |  |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21014).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21015).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28233) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:86-28234).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21018) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.126" (CONF:86-21019).
6. SHALL contain exactly one [1..1] id (CONF:86-21020).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22748).
7. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNDrugSusceptibilityTestsCode](#NHSNDrugSusceptibilityTestsCode) urn:oid:2.16.840.1.113883.13.15 DYNAMIC (CONF:86-21021).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-21023).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21024).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21025).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22749).
10. SHALL contain exactly one [1..1] value (CONF:86-28406).
11. SHALL contain exactly one [1..1] interpretationCode (CONF:86-21026).
    1. If the interpretation result is known, the value of interpretationCode/@code SHALL be selected from Value Set 2.16.840.1.113883.13.13 NHSNDrugSusceptibilityFindingCode DYNAMIC. If the drug was not tested, the value of @nullFlavor SHALL be NASK (CONF:86-21027).

Figure 81: Drug-Susceptibility Test Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- HAI Drug-susceptibility Test Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.126" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="19000-9"

displayName="Vancomycin Susc Islt" />

<statusCode code="completed" />

<effectiveTime nullFlavor="NA" />

<value xsi:type="CD" nullFlavor="NA" />

<interpretationCode codeSystem="2.16.840.1.113883.5.83"

codeSystemName="HL7 Observation Interpretation"

code="S" displayName="susceptible" />

</observation>

Duration of Labor Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.127 (closed)]

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Table 223: Duration of Labor Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (optional) |  |

This observation records the duration of labor in value/width. NHSN protocol requires that the duration be expressed as an integer.

Table 224: Duration of Labor Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.127) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22208](#C_86-22208) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22209](#C_86-22209) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22210](#C_86-22210) |  |
| @root | 1..1 | SHALL |  | [86-22211](#C_86-22211) | 2.16.840.1.113883.10.20.5.6.127 |
| code | 1..1 | SHALL |  | [86-22212](#C_86-22212) |  |
| @code | 1..1 | SHALL |  | [86-22213](#C_86-22213) | 289248003 |
| @codeSystem | 1..1 | SHALL |  | [86-28355](#C_86-28355) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [86-22214](#C_86-22214) |  |
| @code | 1..1 | SHALL |  | [86-22215](#C_86-22215) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | IVL\_TS | [86-22216](#C_86-22216) |  |
| width | 1..1 | SHALL |  | [86-22217](#C_86-22217) |  |
| @value | 1..1 | SHALL |  | [86-22218](#C_86-22218) |  |
| @unit | 1..1 | SHALL |  | [86-22219](#C_86-22219) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22208).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22209).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22210) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.127" (CONF:86-22211).
4. SHALL contain exactly one [1..1] code (CONF:86-22212).
   1. This code SHALL contain exactly one [1..1] @code="289248003" Duration of labor (CONF:86-22213).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28355).
5. SHALL contain exactly one [1..1] statusCode (CONF:86-22214).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-22215).
6. SHALL contain exactly one [1..1] value with @xsi:type="IVL\_TS" (CONF:86-22216).
   1. This value SHALL contain exactly one [1..1] width (CONF:86-22217).
      1. This width SHALL contain exactly one [1..1] @value (CONF:86-22218).
      2. This width SHALL contain exactly one [1..1] @unit (CONF:86-22219).
7. The value of width/@value SHALL be a non-negative integer representing the duration of labor in terms of the units specified in @unit (CONF:86-22221).

Figure 82: Duration of Labor Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- HAI Duration of Labor Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.127"/>

<code code="289248003"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="Duration of labor"/>

<statusCode code="completed"/>

<value xsi:type="IVL\_TS">

<width value="8" unit="h"/>

</value>

</observation>

Endoscope Used Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.128 (closed)]

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Table 225: Endoscope Used Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) (required) |  |

This clinical statement records whether an endoscope was used.

If an endoscope was used, set the value of @negationInd to false. If an endoscope was not used, set the value of @negationInd to true.

Table 226: Endoscope Used Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.128) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21992](#C_86-21992) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-21993](#C_86-21993) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21994](#C_86-21994) |  |
| templateId | 1..1 | SHALL |  | [86-28235](#C_86-28235) |  |
| @root | 1..1 | SHALL |  | [86-28236](#C_86-28236) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-22160](#C_86-22160) |  |
| @root | 1..1 | SHALL |  | [86-22161](#C_86-22161) | 2.16.840.1.113883.10.20.5.6.128 |
| id | 1..1 | SHALL |  | [86-22162](#C_86-22162) |  |
| code | 1..1 | SHALL |  | [86-21995](#C_86-21995) |  |
| @code | 1..1 | SHALL |  | [86-21996](#C_86-21996) | 423827005 |
| @codeSystem | 1..1 | SHALL |  | [86-28184](#C_86-28184) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [86-22163](#C_86-22163) |  |
| @code | 1..1 | SHALL |  | [86-28107](#C_86-28107) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21992).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21993).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-21994).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28235) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28236).
6. SHALL contain exactly one [1..1] templateId (CONF:86-22160) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.128" (CONF:86-22161).
7. SHALL contain exactly one [1..1] id (CONF:86-22162).
8. SHALL contain exactly one [1..1] code (CONF:86-21995).
   1. This code SHALL contain exactly one [1..1] @code="423827005" Endoscopy (CONF:86-21996).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28184).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-22163).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28107).

Figure 83: Endoscope Used Clinical Statement Example

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- C-CDA Procedure Activity Procedure templateId. -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Endoscope Used Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.128" />

<id root="807007ba-c8f0-4842-9c3c-4a4e4c570849" />

<code codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

code="423827005"

displayName="Endoscopy" />

<statusCode code="completed" />

</procedure>

Epidermolysis Bullosa Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01 (closed)]

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Table 227: Epidermolysis Bullosa Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required) |  |

This observation records whether the person had epidermolysis bullosa.

If the person did have epidermolysis bullosa, set the value of @negationInd to false. If the person did not have epidermolysis bullosa, set the value of @negationInd to true.

Table 228: Epidermolysis Bullosa Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3357-30665](#C_3357-30665) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3357-30666](#C_3357-30666) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3357-30667](#C_3357-30667) |  |
| templateId | 1..1 | SHALL |  | [3357-30650](#C_3357-30650) |  |
| @root | 1..1 | SHALL |  | [3357-30656](#C_3357-30656) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [3357-30655](#C_3357-30655) |  |
| @root | 1..1 | SHALL |  | [3357-30663](#C_3357-30663) | 2.16.840.1.113883.10.20.5.6.252 |
| @extension | 1..1 | SHALL |  | [3357-30664](#C_3357-30664) | 2018-04-01 |
| id | 1..1 | SHALL |  | [3357-30651](#C_3357-30651) |  |
| @nullFlavor | 1..1 | SHALL |  | [3357-30657](#C_3357-30657) | NA |
| code | 1..1 | SHALL |  | [3357-30652](#C_3357-30652) |  |
| @code | 1..1 | SHALL |  | [3357-30658](#C_3357-30658) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3357-30659](#C_3357-30659) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3357-30653](#C_3357-30653) |  |
| @code | 1..1 | SHALL |  | [3357-30660](#C_3357-30660) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3357-30654](#C_3357-30654) |  |
| @code | 1..1 | SHALL | CS | [3357-30661](#C_3357-30661) | 3057-7 |
| @codeSystem | 1..1 | SHALL |  | [3357-30662](#C_3357-30662) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3357-30665).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3357-30666).

If the person did have epidermolysis bullosa, set the value of @negationInd to false. If the person did not have epidermolysis bullosa, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3357-30667).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-30650) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:3357-30656).
3. SHALL contain exactly one [1..1] templateId (CONF:3357-30655) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.252" (CONF:3357-30663).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30664).
4. SHALL contain exactly one [1..1] id (CONF:3357-30651).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3357-30657).
5. SHALL contain exactly one [1..1] code (CONF:3357-30652).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3357-30658).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30659).
6. SHALL contain exactly one [1..1] statusCode (CONF:3357-30653).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3357-30660).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3357-30654).
   1. This value SHALL contain exactly one [1..1] @code="3057-7" Epidermolysis bullosa during current admission  (CONF:3357-30661).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30662).

Figure 84: Epidermolysis Bullosa Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- [HAI R3D3] Epidermolysis Bullosa Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.252" extension="2018-04-01"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="3057-7"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Epidermolysis bullosa during current admission "/>

</observation>

Extracorporeal Life Support Present

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01 (closed)]

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Table 229: Extracorporeal Life Support Present Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required) |  |

This procedure represents whether or not an extracorporeal life support (ECLS) system is present. The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the ECLS is unknown. The ECLS device is represented by the participant.

If an extracorporeal life support system was present, set the value of @negationInd to false. If an extracorporeal life support system was not present, set the value of @negationInd to true.

Table 230: Extracorporeal Life Support Present Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-212](#C_3311-212) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [3311-213](#C_3311-213) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3311-214](#C_3311-214) |  |
| templateId | 1..1 | SHALL |  | [3311-204](#C_3311-204) |  |
| @root | 1..1 | SHALL |  | [3311-210](#C_3311-210) | 2.16.840.1.113883.10.20.5.6.246 |
| @extension | 1..1 | SHALL |  | [3311-211](#C_3311-211) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-201](#C_3311-201) |  |
| @nullFlavor | 1..1 | SHALL |  | [3311-28438](#C_3311-28438) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| statusCode | 1..1 | SHALL |  | [3311-202](#C_3311-202) |  |
| @code | 1..1 | SHALL |  | [3311-207](#C_3311-207) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| participant | 1..1 | SHALL |  | [3311-28434](#C_3311-28434) |  |
| @typeCode | 1..1 | SHALL |  | [3311-28439](#C_3311-28439) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [3311-28435](#C_3311-28435) |  |
| @classCode | 1..1 | SHALL |  | [3311-28440](#C_3311-28440) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [3311-28436](#C_3311-28436) |  |
| code | 1..1 | SHALL |  | [3311-28437](#C_3311-28437) |  |
| @code | 1..1 | SHALL |  | [3311-28441](#C_3311-28441) | 261258006 |
| @codeSystem | 1..1 | SHALL |  | [3311-28442](#C_3311-28442) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3311-212).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3311-213).

If an extracorporeal life support system was present, set the value of @negationInd to false. If an extracorporeal life support system was not present set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3311-214).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-204) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.246" (CONF:3311-210).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-211).

The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the ECLS is unknown.

1. SHALL contain exactly one [1..1] code (CONF:3311-201).
   1. This code SHALL contain exactly one [1..1] @nullFlavor="UNK" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28438).
2. SHALL contain exactly one [1..1] statusCode (CONF:3311-202).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3311-207).

The ECLS device is represented by the participant.

1. SHALL contain exactly one [1..1] participant (CONF:3311-28434).
   1. This participant SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28439).
   2. This participant SHALL contain exactly one [1..1] participantRole (CONF:3311-28435).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28440).
      2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:3311-28436).
         1. This playingDevice SHALL contain exactly one [1..1] code (CONF:3311-28437).
            1. This code SHALL contain exactly one [1..1] @code="261258006" Extracorporeal membrane oxygenation circuit (CONF:3311-28441).
            2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-28442).

Figure 85: Extracorporeal Life Support Present Example

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- [HAI R3D2] Extracorporeal Life Support Present -->

<templateId root="2.16.840.1.113883.10.20.5.6.246" extension="2017-04-01" />

<code nullFlavor="UNK" />

<statusCode code="completed" />

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code="261258006"

displayName="Extracorporeal membrane oxygenation circuit"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" />

</playingDevice>

</participantRole>

</participant>

</procedure>

Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01 (closed)]

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Table 231: Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) (required) |  |

This clinical statement represents whether or not the facility transfuses blood products treated with pathogen reduction technology.

If the facility does transfuse blood products treated with pathogen reduction technology, set the value of @negationInd to false. If the facility does not transfuse blood products treated with pathogen reduction technology, set the value of @negationInd to true.

Table 232: Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-30698](#C_3247-30698) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3247-30699](#C_3247-30699) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3247-30700](#C_3247-30700) |  |
| templateId | 1..1 | SHALL |  | [3247-30690](#C_3247-30690) |  |
| @root | 1..1 | SHALL |  | [3247-30696](#C_3247-30696) | 2.16.840.1.113883.10.20.5.6.236 |
| @extension | 1..1 | SHALL |  | [3247-30697](#C_3247-30697) | 2016-08-01 |
| code | 1..1 | SHALL |  | [3247-30687](#C_3247-30687) |  |
| @code | 1..1 | SHALL | CS | [3247-30691](#C_3247-30691) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3247-30692](#C_3247-30692) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3247-30688](#C_3247-30688) |  |
| @code | 1..1 | SHALL |  | [3247-30693](#C_3247-30693) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3247-30689](#C_3247-30689) |  |
| @code | 1..1 | SHALL |  | [3247-30694](#C_3247-30694) | 3542-8 |
| @codeSystem | 1..1 | SHALL |  | [3247-30695](#C_3247-30695) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3247-30698).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3247-30699).

If the facility does transfuse blood products treated with pathogen reduction technology, set the value of @negationInd to false. If the facility does not transfuse blood products treated with pathogen reduction technology, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3247-30700).
2. SHALL contain exactly one [1..1] templateId (CONF:3247-30690) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.236" (CONF:3247-30696).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30697).
3. SHALL contain exactly one [1..1] code (CONF:3247-30687).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3247-30691).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3247-30692).
4. SHALL contain exactly one [1..1] statusCode (CONF:3247-30688).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3247-30693).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3247-30689).
   1. This value SHALL contain exactly one [1..1] @code="3542-8" Facility transfuses blood products treated with pathogen reduction technology (CONF:3247-30694).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3247-30695).

Figure 86: Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2) Example

<!-- Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation -->

<!-- If the facility does transfuse blood products treated with pathogen reduction technology,

set the value of @negationInd to false.

If the facility does not transfuse blood products treated with pathogen reduction technology,

set the value of @negationInd to true. -->

<!-- The facility does transfuse blood products treated with pathogen reduction technology

so negationInd='false' -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [HAI R3D1.1] Facility Transfuses Blood Products Treated with

Pathogen Reduction Technology Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.236" extension="2016-08-01" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed" />

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3542-8"

displayName="Facility transfuses blood products treated with pathogen reduction technology" />

</observation>

Findings Organizer

[organizer: identifier urn:oid:2.16.840.1.113883.10.20.5.6.182 (closed)]

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Table 233: Findings Organizer Contexts

| Contained By: | Contains: |
| --- | --- |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (optional)  [Findings Section in an OPC SSI Report](#S_Findings_Section_in_an_OPC_SSI_Report) (optional) | [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) (required)  [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) (required)  [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) (optional) |

Each Findings Organizer represents a set of information concerning a single pathogen identified. The organizer contains two component elements that record the pathogen and its rank in regard to the other pathogens identified, and can contain additional component elements recording drug-susceptibility test findings. For pathogen antibiogram reporting requirements, refer to the NHSN protocol and the Information Data Model (IDM).

Table 234: Findings Organizer Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.182) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22239](#C_86-22239) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [86-22240](#C_86-22240) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22241](#C_86-22241) |  |
| @root | 1..1 | SHALL |  | [86-22242](#C_86-22242) | 2.16.840.1.113883.10.20.5.6.182 |
| id | 1..1 | SHALL |  | [86-22243](#C_86-22243) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22770](#C_86-22770) | NA |
| statusCode | 1..1 | SHALL |  | [86-22244](#C_86-22244) |  |
| @code | 1..1 | SHALL |  | [86-22245](#C_86-22245) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..1 | SHALL |  | [86-22246](#C_86-22246) |  |
| observation | 1..1 | SHALL |  | [86-22247](#C_86-22247) | [Pathogen Identified Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145](#E_Pathogen_Identified_Observation) |
| component | 1..1 | SHALL |  | [86-22248](#C_86-22248) |  |
| observation | 1..1 | SHALL |  | [86-22249](#C_86-22249) | [Pathogen Ranking Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.147](#E_Pathogen_Ranking_Observation) |
| component | 0..\* | MAY |  | [86-22250](#C_86-22250) |  |
| observation | 1..1 | SHALL |  | [86-22251](#C_86-22251) | [Drug-Susceptibility Test Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.126](#E_DrugSusceptibility_Test_Observation) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22239).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22240).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22241) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.182" (CONF:86-22242).
4. SHALL contain exactly one [1..1] id (CONF:86-22243).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22770).
5. SHALL contain exactly one [1..1] statusCode (CONF:86-22244).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-22245).
6. SHALL contain exactly one [1..1] component (CONF:86-22246) such that it
   1. SHALL contain exactly one [1..1] [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145) (CONF:86-22247).
7. SHALL contain exactly one [1..1] component (CONF:86-22248) such that it
   1. SHALL contain exactly one [1..1] [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.147) (CONF:86-22249).
8. MAY contain zero or more [0..\*] component (CONF:86-22250) such that it
   1. SHALL contain exactly one [1..1] [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.126) (CONF:86-22251).

Figure 87: Findings Organizer Example

<organizer classCode="CLUSTER" moodCode=”EVN”>

<templateId root="2.16.840.1.113883.10.20.5.6.182"/>

<id nullFlavor="NA"/ >

<statusCode code="completed"/>

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Pathogen Identified Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.145"/>

...

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Pathogen Ranking Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.147"/>

...

</observation>

</component>

<component>

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- HAI Drug-Susceptibility Test Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.126"/>

...

</observation>

</component>

</organizer>

Gestational Age at Birth Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01 (closed)]

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Table 235: Gestational Age at Birth Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Risk Factors Section in a LOS/Men Denominator](#S_Risk_Factors_Section_in_a_LOSMen_Deno) (required)  [Risk Factors Section in a LOS/Men Event (V2)](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) (required) |  |

This template represents gestational age at birth, as measured in days. Although gestational age of an infant is typically recorded in weeks plus days (e.g., 27 weeks and 3 days), the xsi:type PQ does not allow for mixed units. The gestational age must be represented in days. For example, 27 weeks and 3 days would be represented with 192 days. If unknown, set value/@nullFlavor="UNK".

Table 236: Gestational Age at Birth Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-30769](#C_4395-30769) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4395-30770](#C_4395-30770) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [4395-30771](#C_4395-30771) | false |
| templateId | 1..1 | SHALL |  | [4395-30764](#C_4395-30764) |  |
| @root | 1..1 | SHALL |  | [4395-30773](#C_4395-30773) | 2.16.840.1.113883.10.20.5.6.255 |
| @extension | 1..1 | SHALL |  | [4395-30976](#C_4395-30976) | 2019-04-01 |
| code | 1..1 | SHALL |  | [4395-30765](#C_4395-30765) |  |
| @code | 1..1 | SHALL |  | [4395-30977](#C_4395-30977) | 76516-4 |
| @codeSystem | 1..1 | SHALL |  | [4395-30978](#C_4395-30978) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL | PQ | [4395-30768](#C_4395-30768) |  |
| @nullFlavor | 0..1 | MAY |  | [4395-30980](#C_4395-30980) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| @unit | 0..1 | SHOULD |  | [4395-30979](#C_4395-30979) | urn:oid:2.16.840.1.113883.6.8 (UCUM) = d |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4395-30769).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4395-30770).
3. SHALL contain exactly one [1..1] @negationInd="false" (CONF:4395-30771).
4. SHALL contain exactly one [1..1] templateId (CONF:4395-30764) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.255" (CONF:4395-30773).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30976).
5. SHALL contain exactly one [1..1] code (CONF:4395-30765).
   1. This code SHALL contain exactly one [1..1] @code="76516-4" Gestational age at birth (CONF:4395-30977).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4395-30978).
6. SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:4395-30768).

If unknown, set @nullFlavor to "UNK".

* 1. This value MAY contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30980).
  2. This value SHOULD contain zero or one [0..1] @unit="d" Days (CodeSystem: UCUM urn:oid:2.16.840.1.113883.6.8) (CONF:4395-30979).

Figure 88: Gestational Age Observation (V2) Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [HAI R3D4] Gestational Age Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.255" extension="2019-04-01"/>

<code code="76516-4" codeSystem="2.16.840.1.113883.6.1" displayName="Gestational age at birth" codeSystemName="LOINC"/>

<value xsi:type="PQ" value="276" unit="d"/>

</observation>

Guidewire Used Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.129 (closed)]

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Table 237: Guidewire Used Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Reason for Procedure Observation](#E_Reason_for_Procedure_Observation) (optional) |  |

This clinical statement records whether the performance of a central-line exchange used a guidewire.

If the central line was exchanged over a guidewire, set the value of @negationInd to false. If the central line was not exchanged over a guidewire, set the value of @negationInd to true.

Table 238: Guidewire Used Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.129) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22151](#C_86-22151) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-22152](#C_86-22152) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-22153](#C_86-22153) |  |
| templateId | 1..1 | SHALL |  | [86-28237](#C_86-28237) |  |
| @root | 1..1 | SHALL |  | [86-28238](#C_86-28238) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-22154](#C_86-22154) |  |
| @root | 1..1 | SHALL |  | [86-22155](#C_86-22155) | 2.16.840.1.113883.10.20.5.6.129 |
| id | 1..1 | SHALL |  | [86-22156](#C_86-22156) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22751](#C_86-22751) | NA |
| code | 1..1 | SHALL |  | [86-22157](#C_86-22157) |  |
| @code | 1..1 | SHALL |  | [86-22158](#C_86-22158) | 3121-1 |
| @codeSystem | 1..1 | SHALL |  | [86-28185](#C_86-28185) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [86-22159](#C_86-22159) |  |
| @code | 1..1 | SHALL |  | [86-28108](#C_86-28108) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22151).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22152).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-22153).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28237) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28238).
6. SHALL contain exactly one [1..1] templateId (CONF:86-22154) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.129" (CONF:86-22155).
7. SHALL contain exactly one [1..1] id (CONF:86-22156).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22751).
8. SHALL contain exactly one [1..1] code (CONF:86-22157).
   1. This code SHALL contain exactly one [1..1] @code="3121-1" Central line exchanged over guidewire (CONF:86-22158).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28185).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-22159).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28108).

Figure 89: Guidewire Used Clinical Statement Example

<procedure moodCode="EVN" classCode="PROC" negationInd="false">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Guidewire Used Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.129" />

<id nullFlavor="NA" />

<code code="3121-1"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Central line exchanged over guidewire" />

<statusCode code="completed" />

</procedure>

Hand Hygiene Performed Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.130 (closed)]

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Table 239: Hand Hygiene Performed Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Central-Line Insertion Preparation Organizer (V2)](#E_CentralLine_Insertion_Preparation_Org) (required) |  |

This clinical statement reports whether hand hygiene was performed. It is one of the actions recorded in the first, preparatory step of the central-line insertion practice sequence.

If the preparation step included hand hygiene, set the value of @negationInd to false. If the preparation step did not include hand hygiene, set the value of @negationInd to true.

Table 240: Hand Hygiene Performed Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.130) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22141](#C_86-22141) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-22142](#C_86-22142) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-22143](#C_86-22143) |  |
| templateId | 1..1 | SHALL |  | [86-28239](#C_86-28239) |  |
| @root | 1..1 | SHALL |  | [86-28240](#C_86-28240) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-22144](#C_86-22144) |  |
| @root | 1..1 | SHALL |  | [86-22145](#C_86-22145) | 2.16.840.1.113883.10.20.5.6.130 |
| id | 1..1 | SHALL |  | [86-22146](#C_86-22146) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22752](#C_86-22752) | NA |
| code | 1..1 | SHALL |  | [86-22147](#C_86-22147) |  |
| @code | 1..1 | SHALL |  | [86-22148](#C_86-22148) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 3109-6 |
| statusCode | 1..1 | SHALL |  | [86-22149](#C_86-22149) |  |
| @code | 1..1 | SHALL |  | [86-22150](#C_86-22150) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22141).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22142).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-22143).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28239) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28240).
6. SHALL contain exactly one [1..1] templateId (CONF:86-22144) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.130" (CONF:86-22145).
7. SHALL contain exactly one [1..1] id (CONF:86-22146).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22752).
8. SHALL contain exactly one [1..1] code (CONF:86-22147).
   1. This code SHALL contain exactly one [1..1] @code="3109-6" Hand hygiene (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-22148).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-22149).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-22150).

Figure 90: Hand Hygiene Performed Clinical Statement Example

<component>

<procedure moodCode="EVN" classCode="PROC" negationInd="false">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Hand Hygiene Performed Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.130" />

<id nullFlavor="NA" />

<code code="3109-6"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Hand hygiene" />

<statusCode code="completed"/>

</procedure>

</component>

Height Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.131 (closed)]

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Table 241: Height Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (required)  [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) (required) |  |

This observation records a body height.

Table 242: Height Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.131) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19729](#C_86-19729) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19730](#C_86-19730) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19731](#C_86-19731) | false |
| templateId | 1..1 | SHALL |  | [86-28241](#C_86-28241) |  |
| @root | 1..1 | SHALL |  | [86-28242](#C_86-28242) | 2.16.840.1.113883.10.20.22.4.27 |
| templateId | 1..1 | SHALL |  | [86-19746](#C_86-19746) |  |
| @root | 1..1 | SHALL |  | [86-27434](#C_86-27434) | 2.16.840.1.113883.10.20.5.6.131 |
| id | 1..1 | SHALL |  | [86-19748](#C_86-19748) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22753](#C_86-22753) | NA |
| code | 1..1 | SHALL |  | [86-19732](#C_86-19732) |  |
| @code | 1..1 | SHALL |  | [86-19733](#C_86-19733) | 50373000 |
| @codeSystem | 1..1 | SHALL |  | [86-28191](#C_86-28191) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [86-19734](#C_86-19734) |  |
| @code | 1..1 | SHALL |  | [86-19735](#C_86-19735) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-19749](#C_86-19749) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22754](#C_86-22754) | NA |
| value | 1..1 | SHALL | PQ | [86-19736](#C_86-19736) |  |
| @value | 1..1 | SHALL |  | [86-19750](#C_86-19750) |  |
| @unit | 1..1 | SHALL |  | [86-19752](#C_86-19752) |  |

1. Conforms to Vital Sign Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.27).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19729).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19730).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-19731).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28241) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.27" (CONF:86-28242).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19746) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.131" (CONF:86-27434).
7. SHALL contain exactly one [1..1] id (CONF:86-19748).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22753).
8. SHALL contain exactly one [1..1] code (CONF:86-19732).
   1. This code SHALL contain exactly one [1..1] @code="50373000" Body height (CONF:86-19733).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28191).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19734).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19735).
10. SHALL contain exactly one [1..1] effectiveTime (CONF:86-19749).
    1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22754).
11. SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:86-19736).
    1. This value SHALL contain exactly one [1..1] @value (CONF:86-19750).
       1. The value of @value SHALL be a non-negative real number representing the body height in terms of the units specified in @unit (CONF:86-19751).
    2. This value SHALL contain exactly one [1..1] @unit (CONF:86-19752).

Figure 91: Height Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Vital Sign Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.27"/>

<!-- HAI Height Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.131"/>

<id nullFlavor="NA"/>

<code code="50373000"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="Body Height"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="PQ" value="1.9" unit="m"/>

</observation>

Hemodialysis Catheter Present

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01 (closed)]

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Table 243: Hemodialysis Catheter Present Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required) |  |

This procedure represents whether or not a hemodialysis catheter is present. The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the hemodialysis catheter is unknown. The hemodialysis catheter device is represented by the participant.

If a hemodialysis catheter was present, set the value of @negationInd to false. If a hemodialysis catheter was not present, set the value of @negationInd to true.

Table 244: Hemodialysis Catheter Present Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-196](#C_3311-196) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [3311-197](#C_3311-197) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3311-198](#C_3311-198) |  |
| templateId | 1..1 | SHALL |  | [3311-190](#C_3311-190) |  |
| @root | 1..1 | SHALL |  | [3311-199](#C_3311-199) | 2.16.840.1.113883.10.20.5.6.245 |
| @extension | 1..1 | SHALL |  | [3311-200](#C_3311-200) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-187](#C_3311-187) |  |
| @nullFlavor | 1..1 | SHALL |  | [3311-28444](#C_3311-28444) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| statusCode | 1..1 | SHALL |  | [3311-188](#C_3311-188) |  |
| @code | 1..1 | SHALL |  | [3311-193](#C_3311-193) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| participant | 1..1 | SHALL |  | [3311-28453](#C_3311-28453) |  |
| @typeCode | 1..1 | SHALL |  | [3311-28458](#C_3311-28458) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [3311-28454](#C_3311-28454) |  |
| @classCode | 1..1 | SHALL |  | [3311-28459](#C_3311-28459) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [3311-28460](#C_3311-28460) |  |
| code | 1..1 | SHALL |  | [3311-28461](#C_3311-28461) |  |
| @code | 1..1 | SHALL |  | [3311-28462](#C_3311-28462) | 450866001 |
| @codeSystem | 1..1 | SHALL |  | [3311-28463](#C_3311-28463) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3311-196).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3311-197).

If a hemodialysis catheter was present, set the value of @negationInd to false. If a hemodialysis catheter was not present set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3311-198).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-190) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.245" (CONF:3311-199).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-200).

The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the hemodialysis catheter is unknown.

1. SHALL contain exactly one [1..1] code (CONF:3311-187).
   1. This code SHALL contain exactly one [1..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28444).
2. SHALL contain exactly one [1..1] statusCode (CONF:3311-188).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3311-193).

The hemodialysis catheter device is represented by the participant.

1. SHALL contain exactly one [1..1] participant (CONF:3311-28453).
   1. This participant SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28458).
   2. This participant SHALL contain exactly one [1..1] participantRole (CONF:3311-28454).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28459).
      2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:3311-28460).
         1. This playingDevice SHALL contain exactly one [1..1] code (CONF:3311-28461).
            1. This code SHALL contain exactly one [1..1] @code="450866001" Hemodialysis catheter (CONF:3311-28462).
            2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-28463).

Figure 92: Hemodialysis Catheter Present Example

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- [HAI R3D2] Hemodialysis Catheter Present-->

<templateId root="2.16.840.1.113883.10.20.5.6.245" extension="2017-04-01" />

<code nullFlavor="UNK" />

<statusCode code="completed" />

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code="450866001"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Hemodialysis catheter" />

</playingDevice>

</participantRole>

</participant>

</procedure>

History of Object Presence Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.132 (closed)]

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Table 245: History of Object Presence Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Urinary Catheter Observation](#E_Urinary_Catheter_Observation) (optional) |  |

This observation records a fact about the history of an object's presence. The observation is intended for use within a context that specifies the object.

When used within the Urinary Catheter Observation, if the patient had a urinary catheter removed within 48 hours, set the value of @negationInd to false. If the patient did not have a urinary catheter removed within 48 hours, set the value of @negationInd to true.

Table 246: History of Object Presence Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.132) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22196](#C_86-22196) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22197](#C_86-22197) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-22198](#C_86-22198) |  |
| templateId | 1..1 | SHALL |  | [86-22199](#C_86-22199) |  |
| @root | 1..1 | SHALL |  | [86-22200](#C_86-22200) | 2.16.840.1.113883.10.20.5.6.132 |
| id | 1..1 | SHALL |  | [86-22201](#C_86-22201) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22755](#C_86-22755) | NA |
| code | 1..1 | SHALL |  | [86-22202](#C_86-22202) |  |
| @code | 1..1 | SHALL |  | [86-22203](#C_86-22203) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28378](#C_86-28378) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-22204](#C_86-22204) |  |
| @code | 1..1 | SHALL |  | [86-22205](#C_86-22205) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-22206](#C_86-22206) |  |
| @code | 1..1 | SHALL |  | [86-22207](#C_86-22207) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2404-2 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22196).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22197).
3. SHALL contain exactly one [1..1] @negationInd (CONF:86-22198).
4. SHALL contain exactly one [1..1] templateId (CONF:86-22199) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.132" (CONF:86-22200).
5. SHALL contain exactly one [1..1] id (CONF:86-22201).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22755).
6. SHALL contain exactly one [1..1] code (CONF:86-22202).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-22203).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28378).
7. SHALL contain exactly one [1..1] statusCode (CONF:86-22204).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-22205).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-22206).
   1. This value SHALL contain exactly one [1..1] @code="2404-2" Removed within 48 hours prior (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-22207).

Figure 93: History of Object Presence Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- HAI History of Object Presence Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.132"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2404-2"

displayName="Removed within 48 hours prior"/>

</observation>

Hospital Admission Clinical Statement

[act: identifier urn:oid:2.16.840.1.113883.10.20.5.6.133 (closed)]

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Table 247: Hospital Admission Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (required) |  |

This clinical statement records whether the outpatient was hospitalized. A causal relationship to the infection indicator(s) is not recorded.  
When the outpatient was hospitalized, set the value of act/@negationInd to false. When the outpatient was not hospitalized, set the value of act/@negationInd to true. When it is not known whether the outpatient was hospitalized, set the value of act/@nullFlavor to "UNK".

Table 248: Hospital Admission Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.133) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [86-22185](#C_86-22185) | UNK |
| @classCode | 1..1 | SHALL |  | [86-22187](#C_86-22187) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [86-22188](#C_86-22188) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [86-22189](#C_86-22189) |  |
| templateId | 1..1 | SHALL |  | [86-22191](#C_86-22191) |  |
| @root | 1..1 | SHALL |  | [86-22192](#C_86-22192) | 2.16.840.1.113883.10.20.5.6.133 |
| id | 1..1 | SHALL |  | [86-22193](#C_86-22193) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22756](#C_86-22756) | NA |
| code | 1..1 | SHALL |  | [86-22194](#C_86-22194) |  |
| @code | 1..1 | SHALL |  | [86-22195](#C_86-22195) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 32485007 |

1. MAY contain zero or one [0..1] @nullFlavor="UNK" (CONF:86-22185).
   1. If it is not known whether the outpatient was hospitalized, the value of act/@nullFlavor SHALL be UNK (CONF:86-22186).
2. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22187).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22188).
4. MAY contain zero or one [0..1] @negationInd (CONF:86-22189).
   1. If the outpatient was hospitalized, the value of act/@negationInd SHALL be false. If the outpatient was not hospitalized, the value of act/@negationInd SHALL be true (CONF:86-22190).
5. SHALL contain exactly one [1..1] templateId (CONF:86-22191) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.133" (CONF:86-22192).
6. SHALL contain exactly one [1..1] id (CONF:86-22193).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22756).
7. SHALL contain exactly one [1..1] code (CONF:86-22194).
   1. This code SHALL contain exactly one [1..1] @code="32485007" Hospital Admission (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-22195).

Figure 94: Hospital Admission Clinical Statement Example

<act classCode="ACT" moodCode="EVN" negationInd="false">

<!-- HAI Hospital Admission templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.133" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

code="32485007"

displayName="Hospital Admission" />

</act>

Imputability Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.134 (closed)]

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Table 249: Imputability Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Suspected Source Observation](#E_Suspected_Source_Observation) (required) |  |

This observation records the strength of certainty of a relationship between events. The relationship is recorded in the code element.

Table 250: Imputability Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.134) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21796](#C_86-21796) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21797](#C_86-21797) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21798](#C_86-21798) |  |
| templateId | 1..1 | SHALL |  | [86-28243](#C_86-28243) |  |
| @root | 1..1 | SHALL |  | [86-28244](#C_86-28244) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21801](#C_86-21801) |  |
| @root | 1..1 | SHALL |  | [86-21802](#C_86-21802) | 2.16.840.1.113883.10.20.5.6.134 |
| id | 1..1 | SHALL |  | [86-21803](#C_86-21803) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22757](#C_86-22757) |  |
| code | 1..1 | SHALL |  | [86-21804](#C_86-21804) |  |
| statusCode | 1..1 | SHALL |  | [86-21806](#C_86-21806) |  |
| @code | 1..1 | SHALL |  | [86-21807](#C_86-21807) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [86-21808](#C_86-21808) |  |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21796).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21797).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-21798).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28243) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28244).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21801) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.134" (CONF:86-21802).
7. SHALL contain exactly one [1..1] id (CONF:86-21803).
   1. This id SHALL contain exactly one [1..1] @nullFlavor (CONF:86-22757).
8. SHALL contain exactly one [1..1] code (CONF:86-21804).
   1. To record imputability of a positive blood culture to the suspected source of contamination, the value of @code SHALL be 2307-7 Imputability of positive blood culture to the suspected source 2.16.840.1.113883.6.277 cdcNHSN (CONF:86-21805).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21806).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21807).
10. SHALL contain exactly one [1..1] value (CONF:86-21808).
    1. In an Evidence of Infection (Dialysis) Report, (CONF:86-21809).
       1. The value of the observation's @negationInd SHALL be 'false' (CONF:86-21810).
       2. The value of @code SHALL be 60022001 Possible 2.16.840.1.113883.6.96 SNOMED CT (CONF:86-21811).

Figure 95: Imputability Observation Example

<!-- Imputability of positive blood culture to suspected source example -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Imputability Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.134"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2307-7"

displayName="Imputability of positive blood culture to the suspected source"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" code="60022001"

displayName="Possible"/>

</observation>

Inborn/Outborn Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01 (open)]

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Table 251: Inborn/Outborn Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details in Late Onset Sepsis Report](#S_Infection_Details_in_Late_Onset_Sepsi) (required) |  |

This observation represents whether an infant was born at the reporting hospital or some other location. If the negation indicator is false the infant was outborn (born before arrival at reporting hospital), if the negation indicator is true the infant was inborn (born at the reporting hospital).

Table 252: Inborn/Outborn Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3357-30831](#C_3357-30831) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3357-30832](#C_3357-30832) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3357-30902](#C_3357-30902) |  |
| templateId | 1..1 | SHALL |  | [3357-30837](#C_3357-30837) |  |
| @root | 1..1 | SHALL |  | [3357-30838](#C_3357-30838) | 2.16.840.1.113883.10.20.5.6.257 |
| @extension | 1..1 | SHALL |  | [3357-30839](#C_3357-30839) | 2018-04-01 |
| code | 1..1 | SHALL |  | [3357-30834](#C_3357-30834) |  |
| @code | 1..1 | SHALL |  | [3357-30840](#C_3357-30840) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3357-30841](#C_3357-30841) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3357-30835](#C_3357-30835) |  |
| @code | 1..1 | SHALL |  | [3357-30872](#C_3357-30872) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3357-30836](#C_3357-30836) |  |
| @code | 1..1 | SHALL |  | [3357-30903](#C_3357-30903) | 445087001 |
| @codeSystem | 1..1 | SHALL |  | [3357-30904](#C_3357-30904) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3357-30831).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3357-30832).
3. SHALL contain exactly one [1..1] @negationInd (CONF:3357-30902).
4. SHALL contain exactly one [1..1] templateId (CONF:3357-30837).
   1. This templateId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.257" (CONF:3357-30838).
   2. This templateId SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30839).
5. SHALL contain exactly one [1..1] code (CONF:3357-30834).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3357-30840).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30841).
6. SHALL contain exactly one [1..1] statusCode (CONF:3357-30835).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3357-30872).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3357-30836).
   1. This value SHALL contain exactly one [1..1] @code="445087001" Born before arrival to hospital (situation) (CONF:3357-30903).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3357-30904).

Figure 96: Inborn/Outborn Observation Example

<!-- If the negation indicator is false the infant was outborn

(born before arrival at reporting hospital),

if the negation indicator is true the infant was inborn (born at the reporting hospital). -->

<!-- This infant was inborn (negationInd="true" -->

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- [HAI R3D3] Inborn/Outborn Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.257" extension="2018-04-01"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD" code="445087001"

displayName="Born before arrival to hospital (situation)"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"/>

</observation>

Infection Condition Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.135 (closed)]

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Table 253: Infection Condition Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection-Type Observation](#E_InfectionType_Observation) (optional)  [Infection-Type Observation in an OPC SSI Event](#E_InfectionType_Observation_in_an_OPC_S) (required) |  |

This observation records the infection condition being reported.

Table 254: Infection Condition Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19883](#C_86-19883) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19884](#C_86-19884) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19885](#C_86-19885) | false |
| templateId | 1..1 | SHALL |  | [86-28245](#C_86-28245) |  |
| @root | 1..1 | SHALL |  | [86-28246](#C_86-28246) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19888](#C_86-19888) |  |
| @root | 1..1 | SHALL |  | [86-19889](#C_86-19889) | 2.16.840.1.113883.10.20.5.6.135 |
| id | 1..1 | SHALL |  | [86-19890](#C_86-19890) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22758](#C_86-22758) | NA |
| code | 1..1 | SHALL |  | [86-19891](#C_86-19891) |  |
| @code | 1..1 | SHALL |  | [86-19892](#C_86-19892) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28379](#C_86-28379) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19893](#C_86-19893) |  |
| @code | 1..1 | SHALL |  | [86-19894](#C_86-19894) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-19895](#C_86-19895) | urn:oid:2.16.840.1.114222.4.11.3196 (NHSNInfectionConditionCode) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19883).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19884).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-19885).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28245) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28246).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19888) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.135" (CONF:86-19889).
7. SHALL contain exactly one [1..1] id (CONF:86-19890).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22758).
8. SHALL contain exactly one [1..1] code (CONF:86-19891).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19892).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28379).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19893).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19894).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNInfectionConditionCode](#NHSNInfectionConditionCode) urn:oid:2.16.840.1.114222.4.11.3196 DYNAMIC (CONF:86-19895).

Table 255: NHSNInfectionConditionCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNInfectionConditionCode urn:oid:2.16.840.1.114222.4.11.3196  (Clinical Focus: NHSN surveillance reporting: Infection condition being reported),(Data Element Scope: A coded observation value describing the infection condition.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3196/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 12463005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Infectious gastroenteritis (disorder) |
| 128241005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Inflammatory disease of liver (disorder) |
| 1601-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Breast abscess or mastitis |
| 1602-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Myocarditis or pericarditis |
| 1603-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Clinical sepsis |
| 1604-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Deep incisional primary surgical site infection (SSI) |
| 1605-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Deep incisional secondary surgical site infection (SSI) |
| 1606-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Vertebral disc space infection |
| 1607-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Ear or mastoid infection (otitis externa, otitis media, otitis interna, mastoiditis) |
| 1608-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Eye infection, other than conjunctivitis |
| ... | | | |

Figure 97: Infection Condition Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Infection Condition Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.135"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1601-4"

displayName="Breast abscess or mastitis"/>

</observation>

Infection Contributed to Death Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.136 (closed)]

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Table 256: Infection Contributed to Death Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Death Observation](#E_Death_Observation) (optional) |  |

In some HAI Reports, this observation is required in a Death Observation if the patient died.

To point to the observation of the infection that contributed to death, the value of the id in this template must be the same as the value of the id element in the Infection-type Observation.

Table 257: Infection Contributed to Death Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.136) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22164](#C_86-22164) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22165](#C_86-22165) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22166](#C_86-22166) |  |
| @root | 1..1 | SHALL |  | [86-22167](#C_86-22167) | 2.16.840.1.113883.10.20.5.6.136 |
| id | 1..1 | SHALL |  | [86-22168](#C_86-22168) |  |
| code | 1..1 | SHALL |  | [86-22170](#C_86-22170) |  |
| @code | 1..1 | SHALL | CS | [86-22174](#C_86-22174) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28380](#C_86-28380) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-22172](#C_86-22172) |  |
| @code | 1..1 | SHALL |  | [86-22173](#C_86-22173) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22164).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22165).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22166) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.136" (CONF:86-22167).
4. SHALL contain exactly one [1..1] id (CONF:86-22168).
   1. The value of the id SHALL be the same as the value of the id element in the Infection-type Observation (templateId 2.16.840.1.113883.10.20.5.6.139) (CONF:86-22169).
5. SHALL contain exactly one [1..1] code (CONF:86-22170).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-22174).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28380).
6. SHALL contain exactly one [1..1] statusCode (CONF:86-22172).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-22173).

Figure 98: Infection Contributed to Death Observation Example

<!-- patient did die -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!--Death Observation template-->

...

<!--Infection did not contribute to death -->

<entryRelationship typeCode="CAUS" inversionInd="true" negationInd="true">

<observation classCode="OBS" moodCode="EVN">

<!-- HAI Infection Contributed to Death Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.136" />

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />

<statusCode code="completed" />

</observation>

</entryRelationship>

</observation>

Infection Indicator Organizer (V5)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 258: Infection Indicator Organizer (V5) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (required) | [IV Antifungal Start Clinical Statement](#E_IV_Antifungal_Start_Clinical_Statemen) (required)  [IV Antibiotic Start Clinical Statement (V4)](#E_IV_Antibiotic_Start_Clinical_Stmt_V4) (required)  [Positive Blood Culture Observation (V3)](#E_Positive_Blood_Culture_Observation_V3) (required)  [Pus, Redness, or Increased Swelling Observation (V2)](#E_Pus_Redness_or_Increased_Swelling_V2) (required) |

This organizer groups together four required infection indicators. An Evidence of Infection (Dialysis) Report is submitted when at least one is true. The infection indicators are recorded as facts associated with the patient, but without asserting a causal relationship to an infection.

The organizer’s effectiveTime/low element represents the earliest date at which one of these indicators was observed. The NHSN protocol specifies that this date represents:  
• For pus/redness/swelling, the symptom onset date  
• For IV antibiotic or antifungal start, the first day the substance was administered as an outpatient  
• For positive blood culture, the day the specimen was drawn.

Table 259: Infection Indicator Organizer (V5) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-22222](#C_4395-22222) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [4395-22223](#C_4395-22223) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4395-22224](#C_4395-22224) |  |
| @root | 1..1 | SHALL |  | [4395-22225](#C_4395-22225) | 2.16.840.1.113883.10.20.5.6.181 |
| @extension | 1..1 | SHALL |  | [4395-30287](#C_4395-30287) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-22226](#C_4395-22226) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-22771](#C_4395-22771) | NA |
| statusCode | 1..1 | SHALL |  | [4395-22227](#C_4395-22227) |  |
| @code | 1..1 | SHALL |  | [4395-22228](#C_4395-22228) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4395-22229](#C_4395-22229) |  |
| low | 1..1 | SHALL |  | [4395-22230](#C_4395-22230) |  |
| component | 1..1 | SHALL |  | [4395-22231](#C_4395-22231) |  |
| observation | 1..1 | SHALL |  | [4395-22232](#C_4395-22232) | [Pus, Redness, or Increased Swelling Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01](#E_Pus_Redness_or_Increased_Swelling_V2) |
| component | 1..1 | SHALL |  | [4395-22233](#C_4395-22233) |  |
| substanceAdministration | 1..1 | SHALL |  | [4395-22234](#C_4395-22234) | [IV Antibiotic Start Clinical Statement (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01](#E_IV_Antibiotic_Start_Clinical_Stmt_V4) |
| component | 1..1 | SHALL |  | [4395-22235](#C_4395-22235) |  |
| substanceAdministration | 1..1 | SHALL |  | [4395-22236](#C_4395-22236) | [IV Antifungal Start Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.141](#E_IV_Antifungal_Start_Clinical_Statemen) |
| component | 1..1 | SHALL |  | [4395-22237](#C_4395-22237) |  |
| observation | 1..1 | SHALL |  | [4395-30429](#C_4395-30429) | [Positive Blood Culture Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01](#E_Positive_Blood_Culture_Observation_V3) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-22222).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-22223).
3. SHALL contain exactly one [1..1] templateId (CONF:4395-22224) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.181" (CONF:4395-22225).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30287).
4. SHALL contain exactly one [1..1] id (CONF:4395-22226).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-22771).
5. SHALL contain exactly one [1..1] statusCode (CONF:4395-22227).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4395-22228).
6. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-22229).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-22230).
7. SHALL contain exactly one [1..1] component (CONF:4395-22231) such that it
   1. SHALL contain exactly one [1..1] [Pus, Redness, or Increased Swelling Observation (V2)](#E_Pus_Redness_or_Increased_Swelling_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01) (CONF:4395-22232).
8. SHALL contain exactly one [1..1] component (CONF:4395-22233) such that it
   1. SHALL contain exactly one [1..1] [IV Antibiotic Start Clinical Statement (V4)](#E_IV_Antibiotic_Start_Clinical_Stmt_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01) (CONF:4395-22234).
9. SHALL contain exactly one [1..1] component (CONF:4395-22235) such that it
   1. SHALL contain exactly one [1..1] [IV Antifungal Start Clinical Statement](#E_IV_Antifungal_Start_Clinical_Statemen) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.141) (CONF:4395-22236).
10. SHALL contain exactly one [1..1] component (CONF:4395-22237) such that it
    1. SHALL contain exactly one [1..1] [Positive Blood Culture Observation (V3)](#E_Positive_Blood_Culture_Observation_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01) (CONF:4395-30429).

Figure 99: Infection Indicator Organizer (V5) Example

<organizer classCode="CLUSTER" moodCode="EVN”>

<templateId root=”2.16.840.1.113883.10.20.5.6.181”

extension="2019-04-01" />

<id nullFlavor="NA" />

<statusCode code="completed"/>

<effectiveTime>

<low value=”20180404”/>

</effectiveTime>

<component>

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Pus, Redness, or Increased Swelling Observation (V2) templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.157" extension="2019-04-01" />

...

</observation>

</component>

<component>

<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">

<!-- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16"/>

<!-- HAI IV Antibiotic Start Clinical Statement (V4) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.140"

extension="2019-04-01"/>

...

</substanceAdministration>

</component>

<component>

<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">

<!—- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16"/>

<!-- HAI IV Antifungal Start Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.141"/>

...

</substanceAdministration >

</component>

<component>

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Positive Blood Culture Observation (V3) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.149"

extension="2019-04-01" />

...

</observation>

</component>

...

</organizer>

Infection Present at the Time of Surgery Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.205 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 1 - US Realm

Table 260: Infection Present at the Time of Surgery Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) (required) |  |

This template records whether or not an infection was present at the time that a surgical procedure was performed. It is based on the C-CDA Problem Observation template.

When an infection was present at the time that a surgical procedure was performed, set the value of @negationInd to false. When an infection was not present at the time that a surgical procedure was performed, set the value of @negationInd to true.

Table 261: Infection Present at the Time of Surgery Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.205) | | | | | |
| @classCode | 1..1 | SHALL |  | [1101-30257](#C_1101-30257) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1101-30258](#C_1101-30258) | EVN |
| @negationInd | 1..1 | SHALL |  | [1101-30259](#C_1101-30259) |  |
| templateId | 1..1 | SHALL |  | [1101-30299](#C_1101-30299) |  |
| @root | 1..1 | SHALL |  | [1101-30300](#C_1101-30300) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [1101-30261](#C_1101-30261) |  |
| @root | 1..1 | SHALL |  | [1101-30262](#C_1101-30262) | 2.16.840.1.113883.10.20.5.6.205 |
| id | 1..1 | SHALL |  | [1101-30263](#C_1101-30263) |  |
| @nullFlavor | 1..1 | SHALL |  | [1101-30264](#C_1101-30264) | NA |
| code | 1..1 | SHALL |  | [1101-30265](#C_1101-30265) |  |
| @code | 1..1 | SHALL |  | [1101-30266](#C_1101-30266) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1101-30267](#C_1101-30267) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1101-30268](#C_1101-30268) |  |
| @code | 1..1 | SHALL |  | [1101-30269](#C_1101-30269) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1101-30270](#C_1101-30270) |  |
| @code | 1..1 | SHALL |  | [1101-30271](#C_1101-30271) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 1237-7 |
| @codeSystem | 1..1 | SHALL |  | [1101-30272](#C_1101-30272) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30257).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:1101-30258).
4. SHALL contain exactly one [1..1] @negationInd (CONF:1101-30259).
   1. If an infection was present at the time that a surgical procedure was performed, the value of @negationInd SHALL be false. If an infection was not present at the time that a surgical procedure was performed, the value of @negationInd SHALL be true (CONF:1101-30260).
5. SHALL contain exactly one [1..1] templateId (CONF:1101-30299) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:1101-30300).
6. SHALL contain exactly one [1..1] templateId (CONF:1101-30261) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.205" (CONF:1101-30262).
7. SHALL contain exactly one [1..1] id (CONF:1101-30263).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1101-30264).
8. SHALL contain exactly one [1..1] code (CONF:1101-30265).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:1101-30266).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30267).
9. SHALL contain exactly one [1..1] statusCode (CONF:1101-30268).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30269).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1101-30270).
    1. This value SHALL contain exactly one [1..1] @code="1237-7" Infection present at the time of surgery (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30271).
    2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30272).

Figure 100: Infection Present at Time of Surgery Observation Example

<!--

If an infection was present at the time that a surgical procedure

was performed, the value of @negationInd SHALL be false.

If an infection was not present at the time that a surgical

procedure was performed, the value of @negationInd SHALL be true

-->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- Infection Present at the Time of Surgery Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.205" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />

<statusCode code="completed" />

<value xsi:type="CD"

code="1237-7"

displayName="Infection present at the time of surgery"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</observation>

Infection Risk Factors Measurement Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.137 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 262: Infection Risk Factors Measurement Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (optional)  [Risk Factors Section in a LOS/Men Denominator](#S_Risk_Factors_Section_in_a_LOSMen_Deno) (required)  [Risk Factors Section in a LOS/Men Event (V2)](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) (required) |  |

This observation records the risk factor of birth weight.

The BSI report uses this observation. The NHSN protocol specifies which measurements are required for each report type. Those rules do not form part of the guide. The NHSNInfectionRiskFactorsCode value set table (included with the Infection Risk Factors Observation template) shows requirements at the time of publication.

Table 263: Infection Risk Factors Measurement Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.137) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19769](#C_86-19769) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19770](#C_86-19770) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19771](#C_86-19771) | false |
| templateId | 1..1 | SHALL |  | [86-28247](#C_86-28247) |  |
| @root | 1..1 | SHALL |  | [86-28248](#C_86-28248) | 2.16.840.1.113883.10.20.22.4.27 |
| templateId | 1..1 | SHALL |  | [86-19780](#C_86-19780) |  |
| @root | 1..1 | SHALL |  | [86-19781](#C_86-19781) | 2.16.840.1.113883.10.20.5.6.137 |
| id | 1..1 | SHALL |  | [86-19782](#C_86-19782) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22759](#C_86-22759) | NA |
| code | 1..1 | SHALL |  | [86-19772](#C_86-19772) |  |
| @code | 1..1 | SHALL |  | [86-19773](#C_86-19773) | 364589006 |
| @codeSystem | 1..1 | SHALL |  | [86-28104](#C_86-28104) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [86-19774](#C_86-19774) |  |
| @code | 1..1 | SHALL |  | [86-19775](#C_86-19775) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-19899](#C_86-19899) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22760](#C_86-22760) | NA |
| value | 1..1 | SHALL | PQ | [86-19776](#C_86-19776) |  |

1. Conforms to Vital Sign Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.27).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19769).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19770).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-19771).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28247) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.27" (CONF:86-28248).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19780) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.137" (CONF:86-19781).
7. SHALL contain exactly one [1..1] id (CONF:86-19782).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22759).
8. SHALL contain exactly one [1..1] code (CONF:86-19772).
   1. This code SHALL contain exactly one [1..1] @code="364589006" Birth weight (CONF:86-19773).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28104).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19774).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19775).
10. SHALL contain exactly one [1..1] effectiveTime (CONF:86-19899).
    1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22760).
11. SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:86-19776).

Figure 101: Infection Risk Factors Measurement Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Vital Sign Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.27"/>

<!-- HAI Infection Risk Factors Measurement Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.137"/>

<id nullFlavor="NA"/>

<code code="364589006"

codeSystem="2.16.840.1.113883.6.96"

displayName="Birth weight"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="PQ" value="700" unit="g"/>

</observation>

Infection Risk Factors Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.138 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 264: Infection Risk Factors Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required)  [Risk Factors Section in a LOS/Men Event (V2)](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) (optional) | [Device Insertion Time and Location Procedure](#E_Device_Insertion_Time_and_Location_Pr) (optional) |

This observation records the presence of infection risk factors. See also the Infection Risk Factors Measurement Observation.  
The NHSNInfectionRiskFactorsCode value set includes infection risk factors for all reports in this guide. The NHSN protocol specifies which risk factors are to be recorded in each report type. Those rules do not form part of the guide.  
If the risk factor is present, set the value of @negationInd to false. If the risk factor is not present, set the value of @negationInd to true.

Table 265: Infection Risk Factors Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.138) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19800](#C_86-19800) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19801](#C_86-19801) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19802](#C_86-19802) |  |
| templateId | 1..1 | SHALL |  | [86-28249](#C_86-28249) |  |
| @root | 1..1 | SHALL |  | [86-28250](#C_86-28250) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19814](#C_86-19814) |  |
| @root | 1..1 | SHALL |  | [86-19816](#C_86-19816) | 2.16.840.1.113883.10.20.5.6.138 |
| id | 1..1 | SHALL |  | [86-19817](#C_86-19817) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22761](#C_86-22761) | NA |
| code | 1..1 | SHALL |  | [86-19803](#C_86-19803) |  |
| @code | 1..1 | SHALL |  | [86-19804](#C_86-19804) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28381](#C_86-28381) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19805](#C_86-19805) |  |
| @code | 1..1 | SHALL |  | [86-19806](#C_86-19806) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-19807](#C_86-19807) | urn:oid:2.16.840.1.113883.13.6 (NHSNInfectionRiskFactorsCode) |
| entryRelationship | 0..1 | MAY |  | [86-19809](#C_86-19809) |  |
| @typeCode | 1..1 | SHALL |  | [86-19810](#C_86-19810) | REFR |
| @inversionInd | 1..1 | SHALL |  | [86-19811](#C_86-19811) | true |
| procedure | 1..1 | SHALL |  | [86-19812](#C_86-19812) | [Device Insertion Time and Location Procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122](#E_Device_Insertion_Time_and_Location_Pr) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19800).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19801).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-19802).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28249) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28250).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19814) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.138" (CONF:86-19816).
7. SHALL contain exactly one [1..1] id (CONF:86-19817).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22761).
8. SHALL contain exactly one [1..1] code (CONF:86-19803).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19804).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28381).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19805).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19806).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNInfectionRiskFactorsCode](#NHSNInfectionRiskFactorsCode) urn:oid:2.16.840.1.113883.13.6 DYNAMIC (CONF:86-19807).
11. MAY contain zero or one [0..1] entryRelationship (CONF:86-19809).
    1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="REFR" (CONF:86-19810).
    2. The entryRelationship, if present, SHALL contain exactly one [1..1] @inversionInd="true" (CONF:86-19811).
    3. The entryRelationship, if present, SHALL contain exactly one [1..1] [Device Insertion Time and Location Procedure](#E_Device_Insertion_Time_and_Location_Pr) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122) (CONF:86-19812).

Table 266: NHSNInfectionRiskFactorsCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNInfectionRiskFactorsCode urn:oid:2.16.840.1.113883.13.6  (Clinical Focus: NHSN surveillance reporting: risk factors for bloodstream infection),(Data Element Scope: A coded observation value describing the infection risk factors.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.6/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1002-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Central line |
| 1003-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Permanent central line |
| 1005-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Temporary central line |
| 1006-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Central line including umbilical catheter |

Figure 102: Infection Risk Factors Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Infection Risk Factors Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.138"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1003-3"

displayName="permanent central line"/>

<entryRelationship typeCode="REFR" inversionInd="true">

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Device Insertion Time and Location Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.122" />

...

</procedure>

</entryRelationship>

</observation>

Infection-Type Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.139 (closed)]

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Table 267: Infection-Type Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details Section in a BSI Report](#S_Infection_Details_Section_in_a_BSI_Re) (required)  [Infection Details Section in a UTI Report](#S_Infection_Details_Section_in_a_UTI_Re) (required)  [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) (required)  [Infection Details Section in a VAE Report](#S_Infection_Details_Section_in_a_VAE_Re) (required)  [Infection Details in Late Onset Sepsis Report](#S_Infection_Details_in_Late_Onset_Sepsi) (required) | [Bloodstream Infection Evidence Type Observation](#E_Bloodstream_Infection_Evidence_Type_O) (optional)  [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) (optional)  [Infection Condition Observation](#E_Infection_Condition_Observation) (optional)  [Occasion of HAI Detection Observation](#E_Occasion_of_HAI_Detection_Observation) (optional)  [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) (required) |

The Infection-Type Observation is used in all infection reports. It is an assertion of the infection type, and contains entryRelationships to record the “criteria”—the information used to arrive at a diagnosis of the infection type.

The value of the id element must be globally unique and need not be an identifier used outside the document. Its function within the document is to identify this infection as being the same as that recorded in the Infection Contributed to Death Observation, if present.

Table 268: Infection-Type Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.139) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21181](#C_86-21181) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21182](#C_86-21182) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21183](#C_86-21183) | false |
| templateId | 1..1 | SHALL |  | [86-28251](#C_86-28251) |  |
| @root | 1..1 | SHALL |  | [86-28252](#C_86-28252) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21239](#C_86-21239) |  |
| @root | 1..1 | SHALL |  | [86-21240](#C_86-21240) | 2.16.840.1.113883.10.20.5.6.139 |
| id | 1..1 | SHALL |  | [86-21184](#C_86-21184) |  |
| code | 1..1 | SHALL |  | [86-21185](#C_86-21185) |  |
| @code | 1..1 | SHALL |  | [86-21186](#C_86-21186) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28186](#C_86-28186) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21187](#C_86-21187) |  |
| @code | 1..1 | SHALL |  | [86-21188](#C_86-21188) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-21189](#C_86-21189) |  |
| low | 1..1 | SHALL |  | [86-28190](#C_86-28190) |  |
| value | 1..1 | SHALL | CD | [86-21190](#C_86-21190) | urn:oid:2.16.840.1.113883.13.20 (NHSNInfectionTypeCode) |
| entryRelationship | 1..1 | SHALL |  | [86-21192](#C_86-21192) |  |
| @typeCode | 1..1 | SHALL |  | [86-21193](#C_86-21193) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT |
| organizer | 1..1 | SHALL |  | [86-21194](#C_86-21194) | [Criteria of Diagnosis Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180](#E_Criteria_of_Diagnosis_Organizer) |
| entryRelationship | 0..1 | MAY |  | [86-23217](#C_86-23217) |  |
| @typeCode | 1..1 | SHALL |  | [86-23218](#C_86-23218) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [86-23219](#C_86-23219) | [Infection Condition Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135](#E_Infection_Condition_Observation) |
| entryRelationship | 0..1 | MAY |  | [86-23221](#C_86-23221) |  |
| @typeCode | 1..1 | SHALL |  | [86-23222](#C_86-23222) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [86-23223](#C_86-23223) | [Secondary Bloodstream Infection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.160](#E_Secondary_Bloodstream_Infection_Obser) |
| entryRelationship | 0..1 | MAY |  | [86-23225](#C_86-23225) |  |
| @typeCode | 1..1 | SHALL |  | [86-23226](#C_86-23226) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-23227](#C_86-23227) | [Bloodstream Infection Evidence Type Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.114](#E_Bloodstream_Infection_Evidence_Type_O) |
| entryRelationship | 0..1 | MAY |  | [86-23229](#C_86-23229) |  |
| @typeCode | 1..1 | SHALL |  | [86-23230](#C_86-23230) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-23231](#C_86-23231) | [Occasion of HAI Detection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.144](#E_Occasion_of_HAI_Detection_Observation) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21181).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21182).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-21183).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28251) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28252).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21239) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.139" (CONF:86-21240).
7. SHALL contain exactly one [1..1] id (CONF:86-21184).
8. SHALL contain exactly one [1..1] code (CONF:86-21185).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21186).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28186).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21187).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21188).
10. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21189).
    1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-28190).
11. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNInfectionTypeCode](#NHSNInfectionTypeCode) urn:oid:2.16.840.1.113883.13.20 DYNAMIC (CONF:86-21190).
12. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21192) such that it
    1. SHALL contain exactly one [1..1] @typeCode="SPRT" Supports (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21193).
    2. SHALL contain exactly one [1..1] [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180) (CONF:86-21194).
13. MAY contain zero or one [0..1] entryRelationship (CONF:86-23217) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23218).
    2. SHALL contain exactly one [1..1] [Infection Condition Observation](#E_Infection_Condition_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135) (CONF:86-23219).
    3. If the report is a Ventilator Associated Event (VAE) Report, an HAI Surgical Site Infection Report (SSI), an HAI Urinary Tract Infection Numerator Report (UTI) or a Late Onset Sepsis/Meningitis Event (LOS) Report then an entryRelationship element SHALL be present containing an Infection Condition Observation (CONF:86-23220).
14. MAY contain zero or one [0..1] entryRelationship (CONF:86-23221) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23222).
    2. SHALL contain exactly one [1..1] [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.160) (CONF:86-23223).
    3. If the report is a Ventilator Associated Event (VAE) Report, an HAI Surgical Site Infection Report (SSI) or an HAI Urinary Tract Infection Numerator Report (UTI) then, an entryRelationship element SHALL be present containing a Secondary Bloodstream Infection Observation (CONF:86-23224).
15. MAY contain zero or one [0..1] entryRelationship (CONF:86-23225) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23226).
    2. SHALL contain exactly one [1..1] [Bloodstream Infection Evidence Type Observation](#E_Bloodstream_Infection_Evidence_Type_O) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.114) (CONF:86-23227).
    3. If the report is a BSI Report, an entryRelationship element SHALL be present containing a Bloodstream Infection Evidence Type Observation (CONF:86-23228).
16. MAY contain zero or one [0..1] entryRelationship (CONF:86-23229) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23230).
    2. SHALL contain exactly one [1..1] [Occasion of HAI Detection Observation](#E_Occasion_of_HAI_Detection_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.144) (CONF:86-23231).
    3. If the report is an SSI Report, an entryRelationship element SHALL be present containing an Occasion of HAI Detection Observation (CONF:86-23232).

Table 269: NHSNInfectionTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNInfectionTypeCode urn:oid:2.16.840.1.113883.13.20  (Clinical Focus: NHSN surveillance reporting: Type of infection for reporting NHSN healthcare-associated events),(Data Element Scope: A coded observation value describing the type of infection.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.20/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 128116006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Infectious disease of nervous system (disorder) |
| 128402005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Infectious disease of cardiovascular system (disorder) |
| 1792-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Multi-drug resistant organism (MDRO) infection |
| 1795-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | C. difficile-associated disease (CDAD) infection |
| 1796-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Reproductive tract infection |
| 1797-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Infection of the ear, eyes, nose, or throat |
| 1798-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Bone or joint infection |
| 19824006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Infection of skin and/or subcutaneous tissue (disorder) |
| 2340-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Ventilator-associated event (VAE) |
| 276674008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Neonatal meningitis (disorder) |
| ... | | | |

Figure 103: Infection-Type Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Infection Type Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.139"/>

<!-- UUID for the infection being reported-->

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<effectiveTime>

<low value="20080807" />

</effectiveTime>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="431193003"

displayName="Blood Stream Infection"/>

<!-- Criteria of Diagnosis Organizer -->

<entryRelationship typeCode="SPRT">

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.180"/>

...

</organizer>

</entryRelationship>

...

<!-- If infection report is NOT a BSI Report, the following two observations are

required. If an SSI Report, an Occasion of HAI Detection Observation is

ALSO required.

If a BSI Report, a Bloodstream Infection Evidence Type Observation is required. -->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Infection Condition Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.135"/>

...

</observation>

</entryRelationship>

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Secondary Bloodstream Infection Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.160"/>

...

</observation>

</entryRelationship>

</observation>

Infection-Type Observation in an OPC SSI Event

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 270: Infection-Type Observation in an OPC SSI Event Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details Section in an OPC SSI Report](#S_Infection_Details_Section_in_an_OPC_S) (required) | [Infection Condition Observation](#E_Infection_Condition_Observation) (required)  [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) (required)  [SSI Detection Method](#E_SSI_Detection_Method) (required) |

The Infection-Type Observation is used in OPC SSI infection reports. It is an assertion of the infection type, and contains entryRelationships to record the “criteria”—the information used to arrive at a diagnosis of the infection type.

Table 271: Infection-Type Observation in an OPC SSI Event Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-30865](#C_4395-30865) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4395-30866](#C_4395-30866) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [4395-30867](#C_4395-30867) | false |
| templateId | 1..1 | SHALL |  | [4395-30855](#C_4395-30855) |  |
| @root | 1..1 | SHALL |  | [4395-30875](#C_4395-30875) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [4395-30864](#C_4395-30864) |  |
| @root | 1..1 | SHALL |  | [4395-30884](#C_4395-30884) | 2.16.840.1.113883.10.20.5.6.263 |
| @extension | 1..1 | SHALL |  | [4395-30885](#C_4395-30885) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-30868](#C_4395-30868) |  |
| code | 1..1 | SHALL |  | [4395-30850](#C_4395-30850) |  |
| @code | 1..1 | SHALL |  | [4395-30869](#C_4395-30869) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4395-30870](#C_4395-30870) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [4395-30851](#C_4395-30851) |  |
| @code | 1..1 | SHALL |  | [4395-30871](#C_4395-30871) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4395-30852](#C_4395-30852) |  |
| low | 1..1 | SHALL |  | [4395-30872](#C_4395-30872) |  |
| value | 1..1 | SHALL | CD | [4395-30873](#C_4395-30873) | urn:oid:2.16.840.1.113883.13.20 (NHSNInfectionTypeCode) |
| entryRelationship | 1..1 | SHALL |  | [4395-30853](#C_4395-30853) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30874](#C_4395-30874) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = SPRT |
| organizer | 1..1 | SHALL |  | [4395-30854](#C_4395-30854) | [Criteria of Diagnosis Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180](#E_Criteria_of_Diagnosis_Organizer) |
| entryRelationship | 1..1 | SHALL |  | [4395-30856](#C_4395-30856) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30876](#C_4395-30876) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4395-30857](#C_4395-30857) | [Infection Condition Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135](#E_Infection_Condition_Observation) |
| entryRelationship | 1..1 | SHALL |  | [4395-30862](#C_4395-30862) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30882](#C_4395-30882) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [4395-30863](#C_4395-30863) | [SSI Detection Method (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01](#E_SSI_Detection_Method) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-30865).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-30866).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:4395-30867).
5. SHALL contain exactly one [1..1] templateId (CONF:4395-30855) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-30875).
6. SHALL contain exactly one [1..1] templateId (CONF:4395-30864) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.263" (CONF:4395-30884).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30885).
7. SHALL contain exactly one [1..1] id (CONF:4395-30868).
8. SHALL contain exactly one [1..1] code (CONF:4395-30850).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4395-30869).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30870).
9. SHALL contain exactly one [1..1] statusCode (CONF:4395-30851).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4395-30871).
10. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30852).
    1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30872).
11. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNInfectionTypeCode](#NHSNInfectionTypeCode) urn:oid:2.16.840.1.113883.13.20 DYNAMIC (CONF:4395-30873).
12. SHALL contain exactly one [1..1] entryRelationship (CONF:4395-30853) such that it
    1. SHALL contain exactly one [1..1] @typeCode="SPRT" Supports (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4395-30874).
    2. SHALL contain exactly one [1..1] [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.180) (CONF:4395-30854).
13. SHALL contain exactly one [1..1] entryRelationship (CONF:4395-30856) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30876).
    2. SHALL contain exactly one [1..1] [Infection Condition Observation](#E_Infection_Condition_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.135) (CONF:4395-30857).
14. SHALL contain exactly one [1..1] entryRelationship (CONF:4395-30862) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30882).
    2. SHALL contain exactly one [1..1] [SSI Detection Method](#E_SSI_Detection_Method) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01) (CONF:4395-30863).

Figure 104: Infection-Type Observation in an OPC SSI Event Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R1] Infection-Type Observation in an OPC SSI Event-->

<templateId root="2.16.840.1.113883.10.20.5.6.263" extension="2019-04-01"/>

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />

<statusCode code="completed" />

<!-- Record the date when the first element used to meet the SSI infection

criterion occurred for the first time during the surveillance period.

Synonyms: infection date, date of infection. -->

<effectiveTime>

<low value="20180806" />

</effectiveTime>

<!-- Infection Type -->

<value xsi:type="CD" codeSystem="2.16.840.1.113883.6.96"

code="433202001"

displayName="Surgical Site Infection" />

<!-- [HAI R1] Criteria of Diagnosis Organizer -->

<entryRelationship typeCode="SPRT">

<organizer classCode="CLUSTER" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.180" />

...

</organizer>

<!-- End of Criteria of Diagnosis Organizer -->

</entryRelationship>

<!-- Infection Condition Observation (SSI Level)-->

<entryRelationship typeCode="REFR">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R1] Infection Condition Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.135" />

...

</observation>

</entryRelationship>

<!-- SSI Detection Method -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3D4] SSI Detection Method -->

<templateId root="2.16.840.1.113883.10.20.5.6.261" extension="2019-04-01" />

...

</observation>

</entryRelationship>

</observation>

ISBT Product Code Summary Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, DSTU 1.1 - US Realm

Table 272: ISBT Product Code Summary Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Blood Product Usage Summary Observation (V2)](#E_Blood_Product_Usage_Summary_Obs_V2) (optional)  [Pathogen Reduced Apheresis Platelet Usage Summary Observation](#E_Pathogen_Reduced_Apheresis_Platelet_U) (optional) |  |

This observation represents the number of units transfused, aliquots transfused, or total discards for each group of blood product split out by type, collection method, and modification or pathogen-reduction methodology, broken down by ISBT (International Society for Blood Transfusion) Product Code.

Table 273: ISBT Product Code Summary Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-30724](#C_3247-30724) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3247-30725](#C_3247-30725) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3247-30716](#C_3247-30716) |  |
| @root | 1..1 | SHALL |  | [3247-30719](#C_3247-30719) | 2.16.840.1.113883.10.20.5.6.238 |
| @extension | 1..1 | SHALL |  | [3247-30720](#C_3247-30720) | 2016-08-01 |
| code | 1..1 | SHALL |  | [3247-30717](#C_3247-30717) |  |
| statusCode | 1..1 | SHALL |  | [3247-30718](#C_3247-30718) |  |
| @code | 1..1 | SHALL |  | [3247-30722](#C_3247-30722) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | INT | [3247-30723](#C_3247-30723) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-30724).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-30725).
3. SHALL contain exactly one [1..1] templateId (CONF:3247-30716) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.238" (CONF:3247-30719).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30720).

The value sets bound to the code element can be sourced from NHSN.

1. SHALL contain exactly one [1..1] code (CONF:3247-30717).
   1. If the product specified in the containing Blood Product Usage Summary Observation is Whole Blood (3467-8, 3468-6, 3469-4), then valueSet NHSN Whole Blood Total (urn:oid:2.16.840.1.114222.4.11.7292) SHALL be used (CONF:3247-30726).
   2. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Not irradiated or Leukocyte Reduced (3471-0, 3472-8, 3473-6), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7294) SHALL be used (CONF:3247-30727).
   3. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Irradiated (3403-3, 3404-1, 3474-4), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Irradiated (urn:oid:2.16.840.1.114222.4.11.7295) SHALL be used (CONF:3247-30765).
   4. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (3407-4, 3408-2, 3476-9), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7297) SHALL be used (CONF:3247-30766).
   5. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (3478-5, 3479-3, 3480-1), then valueSet NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7299) SHALL be used (CONF:3247-30768).
   6. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Irradiated (3411-6, 3412-4, 3481-9), then valueSet NHSN Red Blood Cells/Apheresis/Irradiated (urn:oid:2.16.840.1.114222.4.11.7300) SHALL be used (CONF:3247-30742).
   7. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Leukocyte Reduced (3413-2, 3414-0, 3482-7), then valueSet NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7301) SHALL be used (CONF:3247-30743).
   8. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Apheresis/Riboflavin-Treated (3535-2, 3536-0, 3537-8), then valueSet NHSN Plasma/Apheresis/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7327) SHALL be used (CONF:3247-30744).
   9. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Apheresis/Psoralen-Treated (3532-9, 3533-7, 3534-5), then valueSet NHSN Plasma/Apheresis/Psoralen-Treated (urn:oid:2.16.840.1.114222.4.11.7326) SHALL be used (CONF:3247-30745).
   10. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Whole Blood Derived/Riboflavin-Treated (3526-1, 3527-9, 3528-7), then valueSet NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7324) SHALL be used (CONF:3247-30746).
   11. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Whole Blood Derived/Psoralen-Treated (3523-8, 3524-6, 3525-3), then valueSet NHSN Plasma/Whole Blood Derived/Psoralen-Treated (urn:oid:2.16.840.1.114222.4.11.7323) SHALL be used (CONF:3247-30747).
   12. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Riboflavin-Treated (3517-0, 3518-8, 3519-6 ), then valueSet NHSN Platelets/Apheresis/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7321) SHALL be used (CONF:3247-30748).
   13. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Psoralen-Treated (3514-7, 3515-4, 3516-2), then valueSet NHSN Platelets/Apheresis/Psoralen-Treated (urn:oid:2.16.840.1.114222.4.11.7320) SHALL be used (CONF:3247-30749).
   14. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Riboflavin-Treated (3517-0, 3518-8), then valueSet NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7318) SHALL be used (CONF:3247-30750).
   15. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Psoralen-Treated (3505-5, 3507-1), then valueSet NHSN Platelets/Whole Blood Derived/Psoralen-Treated (urn:oid:2.16.840.1.114222.4.11.7317) SHALL be used (CONF:3247-30751).
   16. If the product specified in the containing Blood Product Usage Summary Observation is Cryoprecipitate (3562-6, 3563-4), then valueSet NHSN Cryoprecipitate (urn:oid:2.16.840.1.114222.4.11.7315) SHALL be used (CONF:3247-30752).
   17. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Apheresis/Total (3529-5, 3530-3, 3531-1), then valueSet NHSN Plasma/Apheresis/Total (urn:oid:2.16.840.1.114222.4.11.7314) SHALL be used (CONF:3247-30753).
   18. If the product specified in the containing Blood Product Usage Summary Observation is Plasma/Whole Blood Derived/Total (3520-4, 3521-2, 3522-0), then valueSet NHSN Plasma/Whole Blood Derived/Total (urn:oid:2.16.840.1.114222.4.11.7313) SHALL be used (CONF:3247-30754).
   19. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Irradiated or Leukocyte Reduced (3427-2, 3428-0, 3496-7), then valueSet NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7312) SHALL be used (CONF:3247-30755).
   20. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Leukocyte Reduced (3425-6, 3426-4, 3495-9), then valueSet NHSN Platelets/Apheresis/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7311) SHALL be used (CONF:3247-30756).
   21. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Irradiated (3423-1, 3424-9, 3494-2), then valueSet NHSN Platelets/Apheresis/Irradiated (urn:oid:2.16.840.1.114222.4.11.7310) SHALL be used (CONF:3247-30757).
   22. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (3491-8, 3492-6, 3493-4), then valueSet NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7309) SHALL be used (CONF:3247-30758).
   23. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (3420-7, 3489-2), then valueSet NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7307) SHALL be used (CONF:3247-30759).
   24. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Leukocyte Reduced (3419-9, 3488-4), then valueSet NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7306) SHALL be used (CONF:3247-30760).
   25. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Irradiated (3418-1, 3487-6), then valueSet NHSN Platelets/Whole Blood Derived/Irradiated (urn:oid:2.16.840.1.114222.4.11.7305) SHALL be used (CONF:3247-30761).
   26. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3485-0, 3486-8), then valueSet NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7304) SHALL be used (CONF:3247-30762).
   27. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (3415-7, 3416-5, 3483-5), then valueSet NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7302) SHALL be used (CONF:3247-30763).
   28. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (3405-8, 3406-6, 3475-1), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (urn:oid:2.16.840.1.114222.4.11.7296) SHALL be used (CONF:3247-30767).
   29. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/S-303-Treated (3547-7, 3548-5, 3549-3), then valueSet NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated (urn:oid:2.16.840.1.114222.4.11.7498) SHALL be used (CONF:3247-30769).
   30. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Whole Blood Derived/Riboflavin-Treated (3550-1, 3551-9, 3552-7), then valueSet NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7499) SHALL be used (CONF:3247-30770).
   31. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/S-303-Treated (3556-8, 3557-6, 3558-4), then valueSet NHSN Red Blood Cells/Apheresis/S-303-Treated (urn:oid:2.16.840.1.114222.4.11.7500) SHALL be used (CONF:3247-30771).
   32. If the product specified in the containing Blood Product Usage Summary Observation is Red Blood Cells/Apheresis/Riboflavin-Treated (3559-2, 3560-0, 3561-8), then valueSet NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7501) SHALL be used (CONF:3247-30772).
   33. If the product specified in the containing Blood Product Usage Summary Observation is Cryoprecipitate/Psoralen-Treated (3564-2, 3565-9), then valueSet NHSN Cryoprecipitate/Psoralen-Treated (urn:oid:2.16.840.1.114222.4.11.7502) SHALL be used (CONF:3247-30773).
   34. If the product specified in the containing Blood Product Usage Summary Observation is Cryoprecipitate/Riboflavin-Treated (3566-7, 3567-5), then valueSet NHSN Cryoprecipitate/Riboflavin-Treated (urn:oid:2.16.840.1.114222.4.11.7503) SHALL be used (CONF:3247-30774).
   35. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Psoralen-Treated and In Plasma (3568-3, 3569-1, 3570-9), then valueSet NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma (urn:oid:2.16.840.1.114222.4.11.7504) SHALL be used (CONF:3247-30775).
   36. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (3571-7, 3572-5, 3573-3), then valueSet NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (urn:oid:2.16.840.1.114222.4.11.7505) SHALL be used (CONF:3247-30776).
   37. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Riboflavin-Treated and In Plasma (3574-1, 3575-8, 3576-6), then valueSet NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (urn:oid:2.16.840.1.114222.4.11.7506) SHALL be used (CONF:3247-30777).
   38. If the product specified in the containing Blood Product Usage Summary Observation is Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (3577-4, 3578-2, 3579-0), then valueSet NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (urn:oid:2.16.840.1.114222.4.11.7507) SHALL be used (CONF:3247-30778).
2. SHALL contain exactly one [1..1] statusCode (CONF:3247-30718).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-30722).
3. SHALL contain exactly one [1..1] value with @xsi:type="INT" (CONF:3247-30723).

Table 274: NHSN Whole Blood Total (1)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Whole Blood Total (1) urn:oid:2.16.840.1.114222.4.11.7292  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for Whole Blood Total reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0009 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | WHOLE BLOOD|CPD/450mL/refg |
| E0013 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | WHOLE BLOOD|CPD/450mL/refg|Open |
| ... | | | |

Table 275: NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3) urn:oid:2.16.840.1.114222.4.11.7294  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0142 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|ACD-A/450mL/refg |
| E0146 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|ACD-B/450mL/refg |
| ... | | | |

Table 276: NHSN Red Blood Cells/Whole Blood Derived/Irradiated (4)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Whole Blood Derived/Irradiated (4) urn:oid:2.16.840.1.114222.4.11.7295  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Irradiated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0155 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|CPD/450mL/refg|Open|Irradiated |
| E0157 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|CPD/450mL/refg|Open|Irradiated|Plasma added |
| ... | | | |

Table 277: NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (6)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (6) urn:oid:2.16.840.1.114222.4.11.7297  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0156 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|CPD/450mL/refg|Open|Irradiated|ResLeu:<5E6 |
| E0162 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|CPD/450mL/refg|Irradiated|ResLeu:<5E6 |
| ... | | | |

Table 278: NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (5)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (5) urn:oid:2.16.840.1.114222.4.11.7296  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0158 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|CPD/450mL/refg|Open|ResLeu:<5E6 |
| E0164 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | RED BLOOD CELLS|CPD/450mL/refg|ResLeu:<5E6 |
| ... | | | |

Table 279: NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (8)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (8) urn:oid:2.16.840.1.114222.4.11.7299  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0605 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg |
| E0624 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg|Open |
| ... | | | |

Table 280: NHSN Red Blood Cells/Apheresis/Irradiated (9)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Apheresis/Irradiated (9) urn:oid:2.16.840.1.114222.4.11.7300  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Irradiated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0625 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg|Open|Irradiated |
| E0635 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg|Open|Irradiated|Supernat rem |
| ... | | | |

Table 281: NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (10)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (10) urn:oid:2.16.840.1.114222.4.11.7301  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0643 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg|Open|ResLeu:<5E6 |
| E0644 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg|Open|ResLeu:<5E6|Supernat rem |
| ... | | | |

Table 282: NHSN Plasma/Apheresis/Riboflavin-Treated (36)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Plasma/Apheresis/Riboflavin-Treated (36) urn:oid:2.16.840.1.114222.4.11.7327  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Apheresis/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E6544 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis FRESH FROZEN PLASMA|ACD-A/XX/<-25C|Riboflavin-treated |
| E6545 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis FRESH FROZEN PLASMA|NaCitrate/XX/<-25C|Frozen <=6h|Riboflavin-treated |
| ... | | | |

Table 283: NHSN Plasma/Apheresis/Psoralen-Treated (35)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Plasma/Apheresis/Psoralen-Treated (35) urn:oid:2.16.840.1.114222.4.11.7326  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Apheresis/Psoralen-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E4984 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis FRESH FROZEN PLASMA|CPD-50/XX/<-30C|Psoralen-treated |
| E5732 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis FRESH FROZEN PLASMA|CPD-50/XX/<-25 C|1st container|Psoralen-treated |
| ... | | | |

Table 284: NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (33)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (33) urn:oid:2.16.840.1.114222.4.11.7324  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Whole Blood Derived/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E6542 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | FRESH FROZEN PLASMA|CPDA-1/XX/<-25C|Riboflavin-treated |
| E6543 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLASMA|CPDA-1/XX/<-25C|Cryo reduced|Riboflavin-treated |
| ... | | | |

Table 285: NHSN Plasma/Whole Blood Derived/Psoralen-Treated (32)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Plasma/Whole Blood Derived/Psoralen-Treated (32) urn:oid:2.16.840.1.114222.4.11.7323  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Whole Blood Derived/Psoralen-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E4983 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | POOLED PLASMA|CPD/450mL/<-30C|2 units|Psoralen-treated |
| E5735 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Liquid POOLED PLASMA|CPD/450mL/refg|2 units|Psoralen-treated |
| ... | | | |

Table 286: NHSN Platelets/Apheresis/Riboflavin-Treated (30)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Riboflavin-Treated (30) urn:oid:2.16.840.1.114222.4.11.7321  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E5748 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|ResLeu:<5E6|Riboflavin-treated |
| E5749 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|ResLeu:<5E6|1st container|Riboflavin-treated |
| ... | | | |

Table 287: NHSN Platelets/Apheresis/Psoralen-Treated (29)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Psoralen-Treated (29) urn:oid:2.16.840.1.114222.4.11.7320  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Psoralen-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E4977 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|PAS-C/XX/20-24C|ResLeu:<1E6|1st container|Approx 240 E9 plts|Psoralen-treated |
| E4979 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|PAS-C/XX/20-24C|ResLeu:<1E6|2nd container|Approx 240 E9 plts|Psoralen-treated |
| ... | | | |

Table 288: NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (27)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (27) urn:oid:2.16.840.1.114222.4.11.7318  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E5772 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | POOLED PLATELETS|CPD/XX/20-24C|ResLeu:<1E6|Riboflavin-treated |
| E5773 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | POOLED PLATELETS|CPD/XX/20-24C|Irradiated|ResLeu:<1E6|Riboflavin-treated |
| ... | | | |

Table 289: NHSN Platelets/Whole Blood Derived/Psoralen-Treated (26)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Whole Blood Derived/Psoralen-Treated (26) urn:oid:2.16.840.1.114222.4.11.7317  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Psoralen-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E4975 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | POOLED PLATELETS|PAS-C/XX/20-24C|ResLeu:<1E6|Buffy coat plts prep|Approx 240 E9 plts|Psoralen-treated |
| E5297 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | POOLED PLATELETS|CPD>PAS-C/XX/20-24C|ResLeu:<1E6|Buffy coat plts prep|Approx 240 E9 plts|Psoralen-treated |
| ... | | | |

Table 290: NHSN Cryoprecipitate (24)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Cryoprecipitate (24) urn:oid:2.16.840.1.114222.4.11.7315  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Cryoprecipitate reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E3571 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | CRYOPRECIPITATE|None/450mL/<=-18C |
| E3572 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | CRYOPRECIPITATE|None/450mL/<=-18C|Irradiated |
| ... | | | |

Table 291: NHSN Plasma/Apheresis/Total (23)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Plasma/Apheresis/Total (23) urn:oid:2.16.840.1.114222.4.11.7314  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Apheresis/Total reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0829 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis FRESH FROZEN PLASMA|ACD-B/XX/<=-18C |
| E0838 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis FRESH FROZEN PLASMA|ACD-B/XX/<=-18C|Irradiated |
| ... | | | |

Table 292: NHSN Plasma/Whole Blood Derived/Total (22)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Plasma/Whole Blood Derived/Total (22) urn:oid:2.16.840.1.114222.4.11.7313  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Plasma/Whole Blood Derived/Total reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0695 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | FRESH FROZEN PLASMA|ACD-B/XX/<=-18C |
| E0698 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | FRESH FROZEN PLASMA|ACD-B/XX/<=-18C|Irradiated |
| ... | | | |

Table 293: NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (21)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (21) urn:oid:2.16.840.1.114222.4.11.7312  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E2983 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5E6 |
| E2984 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|ResLeu:<5E6|Plasma reduced |
| ... | | | |

Table 294: NHSN Platelets/Apheresis/Leukocyte Reduced (20)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Leukocyte Reduced (20) urn:oid:2.16.840.1.114222.4.11.7311  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E3014 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|Open|ResLeu:<5E6 |
| E3015 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|Open|ResLeu:<5E6|Plasma reduced |
| ... | | | |

Table 295: NHSN Platelets/Apheresis/Irradiated (19)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Irradiated (19) urn:oid:2.16.840.1.114222.4.11.7310  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Irradiated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E2982 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated |
| E2999 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|Open|Irradiated|Plasma reduced |
| ... | | | |

Table 296: NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (18)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (18) urn:oid:2.16.840.1.114222.4.11.7309  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E2922 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-B/XX/refg |
| E2926 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/refg |
| ... | | | |

Table 297: NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (16)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (16) urn:oid:2.16.840.1.114222.4.11.7307  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E2810 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPD/450mL/20-24C|Irradiated|ResLeu:<8.3E5 |
| E2811 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPD/450mL/20-24C|Irradiated|ResLeu:<8.3E5|Plasma reduced |
| ... | | | |

Table 298: NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (15)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (15) urn:oid:2.16.840.1.114222.4.11.7306  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E2817 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPD/450mL/20-24C|ResLeu:<8.3E5 |
| E2818 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPD/450mL/20-24C|ResLeu:<8.3E5|Plasma reduced |
| ... | | | |

Table 299: NHSN Platelets/Whole Blood Derived/Irradiated (14)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Whole Blood Derived/Irradiated (14) urn:oid:2.16.840.1.114222.4.11.7305  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Irradiated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E2809 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPD/450mL/20-24C|Irradiated |
| E2814 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPD/450mL/20-24C|Irradiated|Plasma reduced |
| ... | | | |

Table 300: NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (13)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (13) urn:oid:2.16.840.1.114222.4.11.7304  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E2790 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPD/450mL/refg |
| E2794 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | PLATELETS|CPDA-1/450mL/refg |
| ... | | | |

Table 301: NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (11)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (11) urn:oid:2.16.840.1.114222.4.11.7302  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E0626 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg|Open|Irradiated|ResLeu:<5E6 |
| E0627 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis RED BLOOD CELLS|CP2D>AS3/XX/refg|Open|Irradiated|ResLeu:<5E6|Supernat rem |
| ... | | | |

Table 302: NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated urn:oid:2.16.840.1.114222.4.11.7498  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| NA\_RBC\_WBD\_S-303 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated: no codes available at this time please check with NHSN for updates |

Table 303: NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated urn:oid:2.16.840.1.114222.4.11.7499  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| NA\_RBC\_WBD\_Riboflavin | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated: no codes available at this time please check with NHSN for updates |

Table 304: NHSN Red Blood Cells/Apheresis/S-303-Treated (41)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Apheresis/S-303-Treated (41) urn:oid:2.16.840.1.114222.4.11.7500  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/S-303-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| NA\_RBC\_APH\_S-303 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | NHSN Red Blood Cells/Apheresis/S-303-Treated: no codes available at this time please check with NHSN for updates |

Table 305: NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (42)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (42) urn:oid:2.16.840.1.114222.4.11.7501  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Red Blood Cells/Apheresis/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| NA\_RBC\_APH\_Riboflavin | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | NHSN Red Blood Cells/Apheresis/Riboflavin-Treated: no codes available at this time please check with NHSN for any updates |

Table 306: NHSN Cryoprecipitate/Psoralen-Treated (44)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Cryoprecipitate/Psoralen-Treated (44) urn:oid:2.16.840.1.114222.4.11.7502  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Cryoprecipitate/Psoralen-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E9288 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Thawed POOLED CRYOPRECIPITATE|CPD/XX/rt|3 units|Psoralen-treated|From 3 donors |

Table 307: NHSN Cryoprecipitate/Riboflavin-Treated (45)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Cryoprecipitate/Riboflavin-Treated (45) urn:oid:2.16.840.1.114222.4.11.7503  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Cryoprecipitate/Riboflavin-Treated reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E7072 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | CRYOPRECIPITATE|CPD/450mL/<=-25C|Riboflavin-treated |
| E7073 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | CRYOPRECIPITATE|CPDA-1/450mL/<=-25C|Riboflavin-treated |
| ... | | | |

Table 308: NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma (46)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma (46) urn:oid:2.16.840.1.114222.4.11.7504  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E5870 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Washed Apheresis PLATELETS|None/XX/20-24C|ResLeu:<1E6|1st container|Psoralen-treated |
| E5871 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Washed Apheresis PLATELETS|None/XX/20-24C|ResLeu:<1E6|2nd container|Psoralen-treated |
| ... | | | |

Table 309: NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (47)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (47) urn:oid:2.16.840.1.114222.4.11.7505  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E4977 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|PAS-C/XX/20-24C|ResLeu:<1E6|1st container|Approx 240 E9 plts|Psoralen-treated |
| E4979 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|PAS-C/XX/20-24C|ResLeu:<1E6|2nd container|Approx 240 E9 plts|Psoralen-treated |
| ... | | | |

Table 310: NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (48)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (48) urn:oid:2.16.840.1.114222.4.11.7506  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E5748 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|ResLeu:<5E6|Riboflavin-treated |
| E5749 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|ACD-A/XX/20-24C|ResLeu:<5E6|1st container|Riboflavin-treated |
| ... | | | |

Table 311: NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (49)

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (49) urn:oid:2.16.840.1.114222.4.11.7507  NHSN Protocol specifies which ISBT Blood Product codes to use for each blood product type.  The ISBT blood product codes for NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution reporting, at the time of publication, are contained in this value set.  A full listing of codes in this value set can be sourced from NHSN. | | | |
| Code | Code System | Code System OID | Print Name |
| E6641 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|PAS-E/XX/20-24C|ResLeu:<1E6|Riboflavin-treated |
| E7039 | ISBT-128 | urn:oid:2.16.840.1.113883.6.18 | Apheresis PLATELETS|PAS-E/XX/20-24C|ResLeu:<1E6|Supernat reduced|1st container|Riboflavin-treated |
| ... | | | |

Figure 105: ISBT Product Code Summary Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- ISBT Product Code Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.238"

extension="2015-10-01" />

<code codeSystem="2.16.840.1.113883.6.18"

codeSystemName="ISBT-128" code="E0009"

displayName="WHOLE BLOOD|CPD/450mL/refg" />

<statusCode code="completed" />

<value xsi:type="INT" value="2" />

</observation>

Isolate Susceptibility Tests Organizer (V4)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2020-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, Normative 1 - US Realm

Table 312: Isolate Susceptibility Tests Organizer (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Specimen Collection Procedure (ARO) (V4)](#E_Specimen_Collection_Procedure_ARO_V4) (required) | [ARO Staph Aureus Specific Tests Organizer](#E_ARO_Staph_Aureus_Specific_Tests_Organ) (optional)  [Antimicrobial Susceptibility Tests Organizer (V3)](#E_Antimicrobial_Susceptibility_Tests_Or) (required)  [Antimicrobial Susceptibility Isolate Participant (V2)](#E_Antimicrobial_Susceptibility_Iso_V2) (required) |

This organizer records a laboratory-identified microorganism isolate and details of the antimicrobial susceptibility tests performed on that isolate.  
Additionally, it records the unique isolate identifier for purposes of laboratory tracking. Special tests done on isolates of Staphylococcus aureus are also recorded here. The ARO Staph Aureus Specific Tests Organizer is omitted from this clinical statement if Staph. aureus is NOT the identified pathogen (i.e., the participant subject).

Table 313: Isolate Susceptibility Tests Organizer (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2020-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4459-27120](#C_4459-27120) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [4459-27121](#C_4459-27121) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4459-27122](#C_4459-27122) |  |
| @root | 1..1 | SHALL |  | [4459-27123](#C_4459-27123) | 2.16.840.1.113883.10.20.5.6.201 |
| @extension | 1..1 | SHALL |  | [4459-30470](#C_4459-30470) | 2020-04-01 |
| id | 1..\* | SHALL |  | [4459-27124](#C_4459-27124) |  |
| @nullFlavor | 1..1 | SHALL |  | [4459-27125](#C_4459-27125) | NA |
| code | 1..1 | SHALL |  | [4459-27126](#C_4459-27126) |  |
| @code | 1..1 | SHALL |  | [4459-27127](#C_4459-27127) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 18725-2 |
| statusCode | 1..1 | SHALL |  | [4459-27128](#C_4459-27128) |  |
| @code | 1..1 | SHALL |  | [4459-27129](#C_4459-27129) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| participant | 1..1 | SHALL |  | [4459-27130](#C_4459-27130) | [Antimicrobial Susceptibility Isolate Participant (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01](#E_Antimicrobial_Susceptibility_Iso_V2) |
| component | 0..1 | MAY |  | [4459-27156](#C_4459-27156) |  |
| organizer | 1..1 | SHALL |  | [4459-27157](#C_4459-27157) | [ARO Staph Aureus Specific Tests Organizer (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.190](#E_ARO_Staph_Aureus_Specific_Tests_Organ) |
| component | 1..\* | SHALL |  | [4459-27158](#C_4459-27158) |  |
| organizer | 1..1 | SHALL |  | [4459-30469](#C_4459-30469) | [Antimicrobial Susceptibility Tests Organizer (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01](#E_Antimicrobial_Susceptibility_Tests_Or) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4459-27120).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4459-27121).
3. SHALL contain exactly one [1..1] templateId (CONF:4459-27122) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.201" (CONF:4459-27123).
   2. SHALL contain exactly one [1..1] @extension="2020-04-01" (CONF:4459-30470).
4. SHALL contain at least one [1..\*] id (CONF:4459-27124).
   1. Such ids SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4459-27125).
5. SHALL contain exactly one [1..1] code (CONF:4459-27126).
   1. This code SHALL contain exactly one [1..1] @code="18725-2" Microbiology studies (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4459-27127).
6. SHALL contain exactly one [1..1] statusCode (CONF:4459-27128).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4459-27129).
7. SHALL contain exactly one [1..1] [Antimicrobial Susceptibility Isolate Participant (V2)](#E_Antimicrobial_Susceptibility_Iso_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01) (CONF:4459-27130).

This component is included only if the isolate is Staphylococcus aureus.

1. MAY contain zero or one [0..1] component (CONF:4459-27156) such that it
   1. SHALL contain exactly one [1..1] [ARO Staph Aureus Specific Tests Organizer](#E_ARO_Staph_Aureus_Specific_Tests_Organ) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.190) (CONF:4459-27157).
2. SHALL contain at least one [1..\*] component (CONF:4459-27158) such that it
   1. SHALL contain exactly one [1..1] [Antimicrobial Susceptibility Tests Organizer (V3)](#E_Antimicrobial_Susceptibility_Tests_Or) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01) (CONF:4459-30469).

Figure 106: Isolate Susceptibility Tests Organizer (V4) Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- [HAI R3D1.1] Isolate Susceptibility Tests Organizer (V4) -->

<templateId root="2.16.840.1.113883.10.20.5.6.201" extension="2020-04-01" />

<id nullFlavor="NA" />

<code code="18725-2"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

displayName="Microbiology Studies" />

<statusCode code="completed" />

<participant typeCode="SBJ">

<!-- [HAI R3 N1] Antimicrobial Susceptibility Isolate Participant (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.202" extension="2020-04-01" />

...

</participant>

<!-- This component is included only if the pathogen identified is Staph. aureus -->

<component>

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- [C-CDA R1.1] Result Organizer -->

<templateId root="2.16.840.1.113883.10.20.22.4.1" />

<!-- [HAI R1] ARO Staph Aureus Specific Tests Organizer -->

<templateId root="2.16.840.1.113883.10.20.5.6.190" />

...

</organizer>

</component>

<!-- Clarithromycin Susceptibility Testing -->

<component>

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- [C-CDA R1.1] Result Organizer -->

<templateId root="2.16.840.1.113883.10.20.22.4.1" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Tests Organizer (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.177" extension="2016-08-01" />

...

</organizer>

</component>

<!-- Vancomycin susceptibility testing -->

<component>

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- [C-CDA R1.1] Result Organizer -->

<templateId root="2.16.840.1.113883.10.20.22.4.1" />

<!-- [HAI R3D1.1] Antimicrobial Susceptibility Tests Organizer (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.177" extension="2016-08-01" />

...

</organizer>

</component>

</organizer>

IV Antibiotic Start Clinical Statement (V4)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 314: IV Antibiotic Start Clinical Statement (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Indicator Organizer (V5)](#E_Infection_Indicator_Organizer_V5) (required) | [Type of Antimicrobial Start Observation](#E_Type_of_Antimicrobial_Start_Observati) (optional)  [Blood Sample Collected for Culture Observation](#E_Blood_Sample_Collected_for_Culture_Ob) (optional) |

This clinical statement records whether an IV antibiotic was started and if an IV antibiotic was started, the date of the event. It also contains entries detailing the type of antimicrobial start (new or a continuation) and, if the type was new, whether a blood sample was collected for culture. It is used in an Evidence of Infection (Dialysis) Report.

When the IV antibiotic was started, set the value of @negationInd to false and record the event date in effectiveTime/low/@value. When the IV antibiotic was not started, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'.

Table 315: IV Antibiotic Start Clinical Statement (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.140:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-21171](#C_4395-21171) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [4395-21172](#C_4395-21172) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [4395-21173](#C_4395-21173) |  |
| templateId | 1..1 | SHALL |  | [4395-28253](#C_4395-28253) |  |
| @root | 1..1 | SHALL |  | [4395-28254](#C_4395-28254) | 2.16.840.1.113883.10.20.22.4.16 |
| templateId | 1..1 | SHALL |  | [4395-21426](#C_4395-21426) |  |
| @root | 1..1 | SHALL |  | [4395-21427](#C_4395-21427) | 2.16.840.1.113883.10.20.5.6.140 |
| @extension | 1..1 | SHALL |  | [4395-30671](#C_4395-30671) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-21428](#C_4395-21428) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-22766](#C_4395-22766) | NA |
| code | 1..1 | SHALL |  | [4395-21174](#C_4395-21174) |  |
| @code | 1..1 | SHALL |  | [4395-21175](#C_4395-21175) | 281790008 |
| @codeSystem | 1..1 | SHALL |  | [4395-28187](#C_4395-28187) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [4395-21429](#C_4395-21429) |  |
| @code | 1..1 | SHALL |  | [4395-28109](#C_4395-28109) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [4395-21496](#C_4395-21496) |  |
| low | 1..1 | SHALL |  | [4395-21497](#C_4395-21497) |  |
| @nullFlavor | 0..1 | MAY |  | [4395-22767](#C_4395-22767) | NA |
| @value | 0..1 | MAY |  | [4395-30673](#C_4395-30673) |  |
| high | 1..1 | SHALL |  | [4395-21498](#C_4395-21498) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-22768](#C_4395-22768) | NA |
| consumable | 1..1 | SHALL |  | [4395-21176](#C_4395-21176) |  |
| manufacturedProduct | 1..1 | SHALL |  | [4395-21177](#C_4395-21177) |  |
| @classCode | 1..1 | SHALL |  | [4395-28348](#C_4395-28348) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [4395-28338](#C_4395-28338) |  |
| @root | 1..1 | SHALL |  | [4395-28339](#C_4395-28339) | 2.16.840.1.113883.10.20.22.4.23 |
| manufacturedMaterial | 1..1 | SHALL |  | [4395-21178](#C_4395-21178) |  |
| code | 1..1 | SHALL |  | [4395-21179](#C_4395-21179) |  |
| entryRelationship | 0..1 | SHOULD |  | [4395-30667](#C_4395-30667) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30670](#C_4395-30670) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4395-30668](#C_4395-30668) | [Type of Antimicrobial Start Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01](#E_Type_of_Antimicrobial_Start_Observati) |
| entryRelationship | 0..1 | SHOULD |  | [4395-30669](#C_4395-30669) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30672](#C_4395-30672) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| observation | 1..1 | SHALL |  | [4395-30567](#C_4395-30567) | [Blood Sample Collected for Culture Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01](#E_Blood_Sample_Collected_for_Culture_Ob) |

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-21171).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-21172).

When the IV antibiotic was started, set the value of @negationInd to false. When the IV antibiotic was not started, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:4395-21173).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-28253) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:4395-28254).
3. SHALL contain exactly one [1..1] templateId (CONF:4395-21426) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.140" (CONF:4395-21427).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30671).
4. SHALL contain exactly one [1..1] id (CONF:4395-21428).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-22766).
5. SHALL contain exactly one [1..1] code (CONF:4395-21174).
   1. This code SHALL contain exactly one [1..1] @code="281790008" Intravenous antibiotic therapy (CONF:4395-21175).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4395-28187).
6. SHALL contain exactly one [1..1] statusCode (CONF:4395-21429).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4395-28109).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-21496).

When the IV antibiotic was started, record the event date in effectiveTime/low/@value. When the IV antibiotic was not started, set effectiveTime/low/@nullFlavor='NA'.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-21497).
     1. This low MAY contain zero or one [0..1] @nullFlavor="NA" (CONF:4395-22767).
     2. This low MAY contain zero or one [0..1] @value (CONF:4395-30673).
  2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:4395-21498).
     1. This high SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-22768).

1. SHALL contain exactly one [1..1] consumable (CONF:4395-21176).
   1. This consumable SHALL contain exactly one [1..1] manufacturedProduct (CONF:4395-21177).
      1. This manufacturedProduct SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:4395-28348).
      2. This manufacturedProduct SHALL contain exactly one [1..1] templateId (CONF:4395-28338) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.23" (CONF:4395-28339).
      3. This manufacturedProduct SHALL contain exactly one [1..1] manufacturedMaterial (CONF:4395-21178).
         1. This manufacturedMaterial SHALL contain exactly one [1..1] code (CONF:4395-21179).
            1. In an Evidence of Infection (Dialysis) Report, if the antimicrobial started was Vancomycin, the value of @code SHALL be '11124' Vancomycin [[]CodeSystem: 2.16.840.1.113883.6.88 RxNorm]. Otherwise, the value of @nullFlavor SHALL be 'NI' (CONF:4395-21180).
2. SHOULD contain zero or one [0..1] entryRelationship (CONF:4395-30667) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30670).
   2. SHALL contain exactly one [1..1] [Type of Antimicrobial Start Observation](#E_Type_of_Antimicrobial_Start_Observati) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01) (CONF:4395-30668).

If the type of antimicrobial start in the Type of Antimicrobial Start Observation was "New antimicrobial start" (2336-6) then the following template *SHALL* be present.

1. SHOULD contain zero or one [0..1] entryRelationship (CONF:4395-30669) such that it
   1. SHALL contain exactly one [1..1] @typeCode="REFR" Refers to (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4395-30672).
   2. SHALL contain exactly one [1..1] [Blood Sample Collected for Culture Observation](#E_Blood_Sample_Collected_for_Culture_Ob) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01) (CONF:4395-30567).

Figure 107: IV Antibiotic Start Clinical Statement (V4) Example

<!-- When the IV antibiotic was started, set the value of @negationInd to false and record the event date in effectiveTime/low/@value. When the IV antibiotic was not started, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'. -->

<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Medication Activity -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" />

<!-- [HAI R3D1.1] Antibiotic Start Clinical Statement (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.140" extension="2019-04-01" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="281790008"

displayName="Intravenous antibiotic therapy" />

<statusCode code="completed" />

<effectiveTime xsi:type="IVL\_TS">

<low value="20181201" />

<high nullFlavor="NA" />

</effectiveTime>

<!-- The antibiotic started was IV Vancomycin -->

<consumable>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" />

<manufacturedMaterial>

<code codeSystem="2.16.840.1.113883.6.88"

codeSystemName="RxNorm"

code="11124"

displayName="Vancomycin" />

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

<entryRelationship typeCode="REFR">

<!-- Type of Antimicrobial Start Observation -->

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3D1] Type of Antimicrobial Start Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.230" extension="2015-10-01" />

...

</observation>

</entryRelationship>

<!-- If type of antimicrobial start is "new antimicrobial start" 2336-6 then specify

whether or not blood sample collected for culture -->

<!-- Blood Sample Collected for Culture Observation -->

<entryRelationship typeCode="REFR">

<!-- Blood sample was collected so @negationInd="false" -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [HAI R3D1.1] Blood Sample Collected for Culture Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.239" extension="2016-08-01" />

...

</observation>

</entryRelationship>

</substanceAdministration>

IV Antifungal Start Clinical Statement

[substanceAdministration: identifier urn:oid:2.16.840.1.113883.10.20.5.6.141 (closed)]

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Table 316: IV Antifungal Start Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Indicator Organizer (V5)](#E_Infection_Indicator_Organizer_V5) (required) |  |

This clinical statement records whether an IV antifungal was started. It is used in an Evidence of Infection (Dialysis) Report.

When the IV antifungal was started, set the value of @negationInd to false. When the IV antifungal was not started, set the value of @negationInd to true.

Table 317: IV Antifungal Start Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.141) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21166](#C_86-21166) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [86-21167](#C_86-21167) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21168](#C_86-21168) |  |
| templateId | 1..1 | SHALL |  | [86-28255](#C_86-28255) |  |
| @root | 1..1 | SHALL |  | [86-28256](#C_86-28256) | 2.16.840.1.113883.10.20.22.4.16 |
| templateId | 1..1 | SHALL |  | [86-21501](#C_86-21501) |  |
| @root | 1..1 | SHALL |  | [86-21502](#C_86-21502) | 2.16.840.1.113883.10.20.5.6.141 |
| id | 1..1 | SHALL |  | [86-21503](#C_86-21503) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22763](#C_86-22763) | NA |
| code | 1..1 | SHALL |  | [86-21169](#C_86-21169) |  |
| @code | 1..1 | SHALL |  | [86-21170](#C_86-21170) | 2306-9 |
| @codeSystem | 0..1 | MAY |  | [86-28188](#C_86-28188) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [86-21504](#C_86-21504) |  |
| @code | 1..1 | SHALL |  | [86-28110](#C_86-28110) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [86-21505](#C_86-21505) |  |
| low | 1..1 | SHALL |  | [86-21506](#C_86-21506) |  |
| @nullFlavor | 0..1 | SHOULD |  | [86-22764](#C_86-22764) | NA |
| high | 1..1 | SHALL |  | [86-21507](#C_86-21507) |  |
| @nullFlavor | 0..1 | SHOULD |  | [86-22765](#C_86-22765) | NA |
| consumable | 1..1 | SHALL |  | [86-28340](#C_86-28340) |  |
| manufacturedProduct | 1..1 | SHALL |  | [86-28341](#C_86-28341) |  |
| @classCode | 1..1 | SHALL |  | [86-28347](#C_86-28347) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [86-28342](#C_86-28342) |  |
| @root | 1..1 | SHALL |  | [86-28345](#C_86-28345) | 2.16.840.1.113883.10.20.22.4.23 |
| manufacturedMaterial | 1..1 | SHALL |  | [86-28343](#C_86-28343) |  |
| code | 1..1 | SHALL |  | [86-28344](#C_86-28344) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-28346](#C_86-28346) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NI |

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. SHALL contain exactly one [1..1] @classCode="SBADM" Substance Administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21166).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21167).

When the IV antifungal was started, set the value of @negationInd to false. When the IV antifungal was not started, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:86-21168).
2. SHALL contain exactly one [1..1] templateId (CONF:86-28255) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:86-28256).
3. SHALL contain exactly one [1..1] templateId (CONF:86-21501) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.141" (CONF:86-21502).
4. SHALL contain exactly one [1..1] id (CONF:86-21503).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22763).
5. SHALL contain exactly one [1..1] code (CONF:86-21169).
   1. This code SHALL contain exactly one [1..1] @code="2306-9" Intravenous injection of antifungal substance (CONF:86-21170).
   2. This code MAY contain zero or one [0..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28188).
6. SHALL contain exactly one [1..1] statusCode (CONF:86-21504).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28110).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21505).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-21506).
      1. This low SHOULD contain zero or one [0..1] @nullFlavor="NA" (CONF:86-22764).
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:86-21507).
      1. This high SHOULD contain zero or one [0..1] @nullFlavor="NA" (CONF:86-22765).

C-CDA (and CDA) require the consumable element, however NHSN does not collect further information about the antifungal.

1. SHALL contain exactly one [1..1] consumable (CONF:86-28340).
   1. This consumable SHALL contain exactly one [1..1] manufacturedProduct (CONF:86-28341).
      1. This manufacturedProduct SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:86-28347).
      2. This manufacturedProduct SHALL contain exactly one [1..1] templateId (CONF:86-28342) such that it
         1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.23" (CONF:86-28345).
      3. This manufacturedProduct SHALL contain exactly one [1..1] manufacturedMaterial (CONF:86-28343).
         1. This manufacturedMaterial SHALL contain exactly one [1..1] code (CONF:86-28344).
            1. This code SHALL contain exactly one [1..1] @nullFlavor="NI" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:86-28346).

Figure 108: IV Antifungal Start Clinical Statement Example

<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">

<!—- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16"/>

<!-- HAI IV antifungal start clinical statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.141"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2306-9"

displayName="Intravenous injection of antifungal substance"/>

<statusCode code="completed"/>

<effectiveTime xsi:type="IVL\_TS">

<low nullFlavor="NA" />

<high nullFlavor="NA" />

</effectiveTime>

<!-- CDA requires the consumable element, however NHSN does not

collect further information the antifungal -->

<consumable>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" />

<manufacturedMaterial>

<code nullFlavor="NI"/>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

</substanceAdministration>

Known or Suspected Munchhausen's By Proxy Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

Table 318: Known or Suspected Munchhausen's By Proxy Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required) |  |

This observation records whether the person had known or suspected Munchhausen's By Proxy.

If the person did have known or suspected Munchhausen's by proxy, set the value of @negationInd to false. If the person did not have known or suspected Munchhausen's by proxy, set the value of @negationInd to true.

Table 319: Known or Suspected Munchhausen's By Proxy Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3357-30620](#C_3357-30620) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3357-30621](#C_3357-30621) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3357-30622](#C_3357-30622) |  |
| templateId | 1..1 | SHALL |  | [3357-30614](#C_3357-30614) |  |
| @root | 1..1 | SHALL |  | [3357-30623](#C_3357-30623) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [3357-30619](#C_3357-30619) |  |
| @root | 1..1 | SHALL |  | [3357-30630](#C_3357-30630) | 2.16.840.1.113883.10.20.5.6.250 |
| @extension | 1..1 | SHALL |  | [3357-30631](#C_3357-30631) | 2018-04-01 |
| id | 1..1 | SHALL |  | [3357-30615](#C_3357-30615) |  |
| @nullFlavor | 1..1 | SHALL |  | [3357-30624](#C_3357-30624) | NA |
| code | 1..1 | SHALL |  | [3357-30616](#C_3357-30616) |  |
| @code | 1..1 | SHALL |  | [3357-30625](#C_3357-30625) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3357-30626](#C_3357-30626) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3357-30617](#C_3357-30617) |  |
| @code | 1..1 | SHALL |  | [3357-30627](#C_3357-30627) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3357-30618](#C_3357-30618) |  |
| @code | 1..1 | SHALL | CS | [3357-30628](#C_3357-30628) | 3055-1 |
| @codeSystem | 1..1 | SHALL |  | [3357-30629](#C_3357-30629) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3357-30620).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3357-30621).

If the person did have known or suspected Munchhausen's by proxy, set the value of @negationInd to false. If the person did not have known or suspected Munchhausen's by proxy, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3357-30622).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-30614) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:3357-30623).
3. SHALL contain exactly one [1..1] templateId (CONF:3357-30619) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.250" (CONF:3357-30630).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30631).
4. SHALL contain exactly one [1..1] id (CONF:3357-30615).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3357-30624).
5. SHALL contain exactly one [1..1] code (CONF:3357-30616).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3357-30625).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30626).
6. SHALL contain exactly one [1..1] statusCode (CONF:3357-30617).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3357-30627).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3357-30618).
   1. This value SHALL contain exactly one [1..1] @code="3055-1" Known or suspected Munchausen Syndrome by Proxy during current admission  (CONF:3357-30628).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30629).

Figure 109: Known or Suspected Munchhausen's by Proxy Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- [HAI R3D3] Known or Suspected Munchhausen's By Proxy Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.250" extension="2018-04-01"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="3055-1"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Known or suspected Munchausen Syndrome by Proxy during current admission "/>

</observation>

Last Physical Overnight Location Act

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01 (closed)]

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Table 320: Last Physical Overnight Location Act Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounters Section in a LIO Report (V2)](#S_Encounters_Section_in_a_LIO_Report_V2) (required) | [Last Physical Overnight Location Encounter](#E_Last_Physical_Overnight_Location_Enco) (optional) |

This act template is a wrapper around the Last Physical Overnight Location Encounter template. The act identifies that the contained encounter represents the last physical overnight location of the patient, while the encounter template records the type of encounter and the type of location.

Table 321: Last Physical Overnight Location Act Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.227:2014-12-01) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [1129-30558](#C_1129-30558) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| @classCode | 1..1 | SHALL |  | [1129-30564](#C_1129-30564) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1129-30565](#C_1129-30565) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30560](#C_1129-30560) |  |
| @root | 1..1 | SHALL |  | [1129-30567](#C_1129-30567) | 2.16.840.1.113883.10.20.5.6.227 |
| @extension | 1..1 | SHALL |  | [1129-30570](#C_1129-30570) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-30562](#C_1129-30562) |  |
| @code | 1..1 | SHALL |  | [1129-30569](#C_1129-30569) | 3002-3 |
| @codeSystem | 1..1 | SHALL |  | [1129-30571](#C_1129-30571) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| entryRelationship | 0..1 | SHOULD |  | [1129-30572](#C_1129-30572) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30573](#C_1129-30573) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| encounter | 1..1 | SHALL |  | [1129-30574](#C_1129-30574) | [Last Physical Overnight Location Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01](#E_Last_Physical_Overnight_Location_Enco) |

Use nullFlavor="NA" where the last physical overnight location is not applicable.

1. MAY contain zero or one [0..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008 STATIC) (CONF:1129-30558).
2. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-30564).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-30565).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30560) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.227" (CONF:1129-30567).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30570).
5. SHALL contain exactly one [1..1] code (CONF:1129-30562).
   1. This code SHALL contain exactly one [1..1] @code="3002-3" Last physical overnight location of patient immediately prior to arrival into facility (CONF:1129-30569).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30571).

Where the last physical overnight location is not applicable, this entryRelationship will not be present.

1. SHOULD contain zero or one [0..1] entryRelationship (CONF:1129-30572).
   1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-30573).
   2. The entryRelationship, if present, SHALL contain exactly one [1..1] [Last Physical Overnight Location Encounter](#E_Last_Physical_Overnight_Location_Enco) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01) (CONF:1129-30574).

Figure 110: Last Physical Overnight Location Act Example

<act classCode="ACT" moodCode="EVN">

<!-- Last Physical Overnight Location Act templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.227"

extension="2014-12-01" />

<code code="3002-3"

displayName="Last physical overnight location of patient immediately prior to

arrival into facility"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

<entryRelationship typeCode="COMP">

<!-- Last Physical Overnight Location Encounter -->

<encounter classCode="ENC" moodCode="EVN">

<!-- CCD Encounter activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- Last Physical Overnight Location Encounter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.220"

extension="2014-12-01" />

...

</encounter>

</entryRelationship>

</act>

Figure 111: Last Physical Overnight Location Act - Not Applicable Example

<act classCode="ACT" moodCode="EVN" nullFlavor="NA">

<!-- Last Physical Overnight Location Act templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.227"

extension="2014-12-01" />

<code code="3002-3"

displayName="Last physical overnight location of patient immediately prior to

arrival into facility"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</act>

Last Physical Overnight Location Encounter

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01 (closed)]

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Table 322: Last Physical Overnight Location Encounter Contexts

| Contained By: | Contains: |
| --- | --- |
| [Last Physical Overnight Location Act](#E_Last_Physical_Overnight_Location_Act) (optional) |  |

This template represents an encounter at the last physical overnight location of the patient immediately prior to his or her arrival into the facility. The type of encounter can be either "IMP" (inpatient encounter) or "HH" (home health) depending on the last location; the location participant records the type of the last overnight location. If the last physical overnight location is unknown code will be nullFlavor="UNK".

Table 323: Last Physical Overnight Location Encounter Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-30271](#C_1129-30271) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1129-30272](#C_1129-30272) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30493](#C_1129-30493) |  |
| @root | 1..1 | SHALL |  | [1129-30494](#C_1129-30494) | 2.16.840.1.113883.10.20.22.4.49 |
| templateId | 1..1 | SHALL |  | [1129-30495](#C_1129-30495) |  |
| @root | 1..1 | SHALL |  | [1129-30496](#C_1129-30496) | 2.16.840.1.113883.10.20.5.6.220 |
| @extension | 1..1 | SHALL |  | [1129-30497](#C_1129-30497) | 2014-12-01 |
| id | 1..\* | SHALL |  | [1129-30256](#C_1129-30256) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30263](#C_1129-30263) | NA |
| code | 1..1 | SHALL |  | [1129-30257](#C_1129-30257) | urn:oid:2.16.840.1.113883.10.20.5.9.3 (NHSNLastLocationEncounterTypeCode) |
| @nullFlavor | 0..1 | MAY |  | [1129-30593](#C_1129-30593) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| effectiveTime | 1..1 | SHALL |  | [1129-30258](#C_1129-30258) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30265](#C_1129-30265) | NA |
| participant | 0..1 | SHOULD |  | [1129-30260](#C_1129-30260) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30270](#C_1129-30270) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1129-30261](#C_1129-30261) |  |
| @classCode | 1..1 | SHALL |  | [1129-30269](#C_1129-30269) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| code | 1..1 | SHALL |  | [1129-30262](#C_1129-30262) |  |
| @code | 1..1 | SHALL |  | [1129-30482](#C_1129-30482) | urn:oid:2.16.840.1.114222.4.11.7233 (NHSNPreviousPatientLocation) |

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-30271).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-30272).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30493) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:1129-30494).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-30495) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.220" (CONF:1129-30496).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30497).
6. SHALL contain at least one [1..\*] id (CONF:1129-30256).
   1. Such ids SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30263).

If the last physical overnight location was a nursing home/skilled nursing facility or other inpatient healthcare setting, the encounter code will be "IMP". If the last physical overnight location is a personal residence/residential care, then the encounter code will be "HH". If the last physical overnight location is unknown use nullFlavor="UNK".

1. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNLastLocationEncounterTypeCode](#NHSNLastLocationEncounterTypeCode) urn:oid:2.16.840.1.113883.10.20.5.9.3 DYNAMIC (CONF:1129-30257).
   1. This code MAY contain zero or one [0..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1129-30593).
2. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-30258).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30265).

If the last physical overnight location is unknown, this participant will not be present.

1. SHOULD contain zero or one [0..1] participant (CONF:1129-30260).
   1. The participant, if present, SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1129-30270).
   2. The participant, if present, SHALL contain exactly one [1..1] participantRole (CONF:1129-30261).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:1129-30269).
      2. This participantRole SHALL contain exactly one [1..1] code (CONF:1129-30262).
         1. This code SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSNPreviousPatientLocation](#NHSNPreviousPatientLocation) urn:oid:2.16.840.1.114222.4.11.7233 DYNAMIC (CONF:1129-30482).

Table 324: NHSNLastLocationEncounterTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNLastLocationEncounterTypeCode urn:oid:2.16.840.1.113883.10.20.5.9.3  (Clinical Focus: Last physical overnight location of patient immediately prior to arrival into facility for NHSN reporting purposes),(Data Element Scope: A code identifying the type of encounter of the last physical oversight location for the patient.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.3/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| HH | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | home health |
| IMP | HL7ActCode | urn:oid:2.16.840.1.113883.5.4 | inpatient encounter |

Table 325: NHSNPreviousPatientLocation

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNPreviousPatientLocation urn:oid:2.16.840.1.114222.4.11.7233  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the previous location of patient immediately prior to arrival at the facility.),(Data Element Scope: A code identifying the type of location the was previously located prior to arrival at the current facility.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7233/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 3005-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Nursing Home/Skilled Nursing Facility |
| 3006-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Other inpatient healthcare setting (e.g., Acute Care Hospital, LTAC, Rehabilitation, etc.) |
| 3007-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Personal residence/residential care |

Figure 112: Last Physical Overnight Location Encounter Example

<encounter classCode="ENC" moodCode="EVN">

<!-- CCD Encounter activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- Last Physical Overnight Location Encounter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.220"

extension="2014-12-01" />

<id nullFlavor="NA" />

<!-- If the last physical overnight location was a nursing home/skilled nursing

facility or other inpatient healthcare setting, the encounter code will be

"IMP". If the last physical overnight location is a personal

residence/residential care then the encounter code will be "HH". -->

<code code="HH"

displayName="home health"

codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode" />

<effectiveTime nullFlavor="NA" />

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<code code="3007-2"

displayName="Personal Residence/Residential Care"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</participantRole>

</participant>

</encounter>

Figure 113: Last Physical Overnight Location Encounter - Unknown Example

<encounter classCode="ENC" moodCode="EVN">

<!-- C-CDA Encounter Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- Last Physical Overnight Location Encounter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.220"

extension="2014-12-01" />

<id nullFlavor="NA" />

<!-- The last physical overnight location is unknown -->

<code nullFlavor="UNK" />

<effectiveTime nullFlavor="NA" />

</encounter>

Location Within Facility Encounter

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01 (closed)]

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Table 326: Location Within Facility Encounter Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounters Section in a LOS/Men Denominator](#S_Encounters_Section_in_a_LOSMen_Denomi) (required) |  |

This template represents an encounter at a location within the facility. The participation/participantRole/code contains the patient's location within the facility, the date admitted or transferred to that location is recorded in effectiveTime/low, the disposition of the infant is contained in sdtc:dischargeDispositionCode and, if the infant was discharged, transferred, or expired, the date on which this occurred is recorded in effectiveTime/high. If the infant had no location change, no date is recorded.

Table 327: Location Within Facility Encounter Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-30839](#C_4395-30839) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [4395-30840](#C_4395-30840) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4395-30826](#C_4395-30826) |  |
| @root | 1..1 | SHALL |  | [4395-30835](#C_4395-30835) | 2.16.840.1.113883.10.20.22.4.49 |
| templateId | 1..1 | SHALL |  | [4395-30830](#C_4395-30830) |  |
| @root | 1..1 | SHALL |  | [4395-30841](#C_4395-30841) | 2.16.840.1.113883.10.20.5.6.262 |
| @extension | 1..1 | SHALL |  | [4395-30842](#C_4395-30842) | 2019-04-01 |
| id | 1..\* | SHALL |  | [4395-30823](#C_4395-30823) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-30831](#C_4395-30831) | NA |
| code | 1..1 | SHALL |  | [4395-30824](#C_4395-30824) |  |
| @code | 1..1 | SHALL |  | [4395-30832](#C_4395-30832) | IMP |
| @codeSystem | 1..1 | SHALL |  | [4395-30833](#C_4395-30833) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| effectiveTime | 1..1 | SHALL |  | [4395-30825](#C_4395-30825) |  |
| low | 1..1 | SHALL |  | [4395-30843](#C_4395-30843) |  |
| high | 0..1 | MAY |  | [4395-30844](#C_4395-30844) |  |
| sdtc:dischargeDispositionCode | 1..1 | SHALL |  | [4395-30845](#C_4395-30845) | urn:oid:2.16.840.1.113883.10.20.5.9.30 (NHSNLOS/MENDischargeDisposition) |
| participant | 1..1 | SHALL |  | [4395-30827](#C_4395-30827) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30838](#C_4395-30838) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [4395-30828](#C_4395-30828) |  |
| @classCode | 1..1 | SHALL |  | [4395-30837](#C_4395-30837) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| id | 1..1 | SHALL |  | [4395-30947](#C_4395-30947) |  |
| @root | 1..1 | SHALL |  | [4395-30948](#C_4395-30948) |  |
| @extension | 1..1 | SHALL |  | [4395-30949](#C_4395-30949) |  |
| code | 1..1 | SHALL |  | [4395-30829](#C_4395-30829) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-30839).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-30840).
4. SHALL contain exactly one [1..1] templateId (CONF:4395-30826) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:4395-30835).
5. SHALL contain exactly one [1..1] templateId (CONF:4395-30830) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.262" (CONF:4395-30841).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30842).
6. SHALL contain at least one [1..\*] id (CONF:4395-30823).
   1. Such ids SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-30831).
7. SHALL contain exactly one [1..1] code (CONF:4395-30824).
   1. This code SHALL contain exactly one [1..1] @code="IMP" inpatient encounter (CONF:4395-30832).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30833).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30825).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30843).  
      Note: Date Admitted or Transferred to Location

If the infant was discharged, transferred, or expired, the date on which this occurred is recorded in effectiveTime/high. If the infant had no location change, no date is recorded in effectiveTime/high.

* 1. This effectiveTime MAY contain zero or one [0..1] high (CONF:4395-30844).  
     Note: Date of discharge, transfer, or death

1. SHALL contain exactly one [1..1] sdtc:dischargeDispositionCode, which SHALL be selected from ValueSet [NHSNLOS/MENDischargeDisposition](#NHSNLOSMENDischargeDisposition) urn:oid:2.16.840.1.113883.10.20.5.9.30 DYNAMIC (CONF:4395-30845).  
   Note: Disposition of infant
2. SHALL contain exactly one [1..1] participant (CONF:4395-30827).
   1. This participant SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:4395-30838).
   2. This participant SHALL contain exactly one [1..1] participantRole (CONF:4395-30828).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:4395-30837).
      2. This participantRole SHALL contain exactly one [1..1] id (CONF:4395-30947).  
         Note: Location within facility

The value of @root must be the NHSN assigned Facility OID.

* + - 1. This id SHALL contain exactly one [1..1] @root (CONF:4395-30948).

The value of @extension must be a value registered with NHSN.

* + - 1. This id SHALL contain exactly one [1..1] @extension (CONF:4395-30949).
    1. This participantRole SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:4395-30829).  
       Note: Location type

Table 328: NHSNLOS/MENDischargeDisposition

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNLOS/MENDischargeDisposition urn:oid:2.16.840.1.113883.10.20.5.9.30  (Clinical Focus: NHSN surveillance reporting: discharge disposition of infant),(Data Element Scope: A code identifying the discharge disposition for the infant.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.30/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1311-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | No location change |
| 183665006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Discharged from hospital (finding) |
| 266751003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Transferred from department (finding) |
| 371828006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Patient deceased during stay (discharge status = dead) (finding) |

Figure 114: Location Within Facility Encounter Example

<encounter classCode="ENC" moodCode="EVN">

<!-- [C-CDA R1.1] Encounter activity -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- [HAI R3D4] Location Within Facility Encounter -->

<templateId root="2.16.840.1.113883.10.20.5.6.262" extension="2019-04-01" />

<id nullFlavor="NA" />

<code code="IMP"

displayName="inpatient encounter"

codeSystem="2.16.840.1.113883.5.4"

codeSystemName="HL7 ActCode" />

<effectiveTime>

<!-- Date admitted or transferred to this location -->

<low value="20190101" />

<!-- Date discharged or transferred from this location

(this is the date that that patient was transferred from this location)

If the infant had no location change, no date is recorded in effectiveTime/high -->

<high value="20190102" />

</effectiveTime>

<sdtc:dischargeDispositionCode code="266751003"

displayName="Transferred from department (finding)"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT" />

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<!-- Location within facility -->

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="NICU" />

<!-- Location type -->

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthCareServiceLocation"

code="1039-7"

displayName="Neonatal Critical care (Level II/III)" />

</participantRole>

</participant>

</encounter>

Loss of Vascular Access Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.203 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 1 - US Realm

Table 329: Loss of Vascular Access Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) (required) |  |

This template records whether or not a patient on dialysis lost vascular access as a result of the infection (dialysis event). It is based on the C-CDA Problem Observation template.

When the patient had loss of vascular access, set the value of @negationInd to false. When the patient did not have loss of vascular access, set the value of @negationInd to true. When it is not known if the patient had loss of vascular access, set the value of @nullFlavor to "UNK".

Table 330: Loss of Vascular Access Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.203) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [1101-30214](#C_1101-30214) | UNK |
| @classCode | 1..1 | SHALL |  | [1101-30205](#C_1101-30205) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1101-30206](#C_1101-30206) | EVN |
| @negationInd | 0..1 | SHOULD |  | [1101-30216](#C_1101-30216) |  |
| templateId | 1..1 | SHALL |  | [1101-30301](#C_1101-30301) |  |
| @root | 1..1 | SHALL |  | [1101-30302](#C_1101-30302) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [1101-30207](#C_1101-30207) |  |
| @root | 1..1 | SHALL |  | [1101-30208](#C_1101-30208) | 2.16.840.1.113883.10.20.5.6.203 |
| id | 1..1 | SHALL |  | [1101-30209](#C_1101-30209) |  |
| @nullFlavor | 1..1 | SHALL |  | [1101-30224](#C_1101-30224) | NA |
| code | 1..1 | SHALL |  | [1101-30210](#C_1101-30210) |  |
| @code | 1..1 | SHALL |  | [1101-30218](#C_1101-30218) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1101-30219](#C_1101-30219) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1101-30211](#C_1101-30211) |  |
| @code | 1..1 | SHALL |  | [1101-30212](#C_1101-30212) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1101-30213](#C_1101-30213) |  |
| @code | 1..1 | SHALL |  | [1101-30220](#C_1101-30220) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2325-9 |
| @codeSystem | 1..1 | SHALL |  | [1101-30221](#C_1101-30221) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. MAY contain zero or one [0..1] @nullFlavor="UNK" (CONF:1101-30214).
   1. If it is not known whether the patient had loss of vascular access, the value of @nullFlavor SHALL be UNK. If the value of @nullFlavor is set to UNK then the value of @negationInd SHALL NOT be set (CONF:1101-30215).
3. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30205).
4. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:1101-30206).
5. SHOULD contain zero or one [0..1] @negationInd (CONF:1101-30216).
   1. If the patient had loss of vascular access, the value of @negationInd SHALL be false. If the patient did not have loss of vascular access, the value of @negationInd SHALL be true. If the value of @negationInd is set then the value of @nullFlavor SHALL NOT be set (CONF:1101-30217).
6. SHALL contain exactly one [1..1] templateId (CONF:1101-30301) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:1101-30302).
7. SHALL contain exactly one [1..1] templateId (CONF:1101-30207) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.203" (CONF:1101-30208).
8. SHALL contain exactly one [1..1] id (CONF:1101-30209).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1101-30224).
9. SHALL contain exactly one [1..1] code (CONF:1101-30210).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1101-30218).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30219).
10. SHALL contain exactly one [1..1] statusCode (CONF:1101-30211).
    1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30212).
11. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1101-30213).
    1. This value SHALL contain exactly one [1..1] @code="2325-9" Loss of vascular access (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30220).
    2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30221).

Figure 115: Loss of Vascular Access Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!--

If the patient had loss of vascular access,

the value of @negationInd SHALL be false.

If the patient did not have loss of vascular access,

the value of @negationInd SHALL be true.

If the value of @negationInd is set then the value of

@nullFlavor SHALL NOT be set.

If it is not known whether the patient had loss of vascular access,

the value of @nullFlavor SHALL be "UNK" as follows:

<observation classCode="OBS" moodCode="EVN" nullFlavor="UNK">

If the value of @nullFlavor is set to "UNK" then the value of

@negationInd SHALL NOT be set.

-->

<!-- C-CDA Problem Observation Type -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- Loss of Vascular Access Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.203" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />

<statusCode code="completed" />

<value xsi:type="CD"

code="2325-9"

displayName="Loss of vascular access"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</observation>

MDRO/CDI Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.142 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 331: MDRO/CDI Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (optional) |  |

This observation records whether the primary infection being reported was caused by a multi-drug-resistant organism (MDRO). It is a general or summary observation not associated with any individual pathogen in the Findings Section.

If the infection organism was multi-drug resistant, set the value of @negationInd to false. If the infection organism was not multi-drug resistant, set the value of @negationInd to true.

Table 332: MDRO/CDI Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.142) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21157](#C_86-21157) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21158](#C_86-21158) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21159](#C_86-21159) |  |
| templateId | 1..1 | SHALL |  | [86-28257](#C_86-28257) |  |
| @root | 1..1 | SHALL |  | [86-28258](#C_86-28258) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21234](#C_86-21234) |  |
| @root | 1..1 | SHALL |  | [86-21235](#C_86-21235) | 2.16.840.1.113883.10.20.5.6.142 |
| id | 1..1 | SHALL |  | [86-21236](#C_86-21236) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22769](#C_86-22769) | NA |
| code | 1..1 | SHALL |  | [86-21160](#C_86-21160) |  |
| @code | 1..1 | SHALL |  | [86-21161](#C_86-21161) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28382](#C_86-28382) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21162](#C_86-21162) |  |
| @code | 1..1 | SHALL |  | [86-21163](#C_86-21163) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21164](#C_86-21164) |  |
| @code | 1..1 | SHALL |  | [86-21165](#C_86-21165) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2318-4 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21157).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21158).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-21159).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28257) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28258).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21234) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.142" (CONF:86-21235).
7. SHALL contain exactly one [1..1] id (CONF:86-21236).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22769).
8. SHALL contain exactly one [1..1] code (CONF:86-21160).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21161).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28382).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21162).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21163).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21164).
    1. This value SHALL contain exactly one [1..1] @code="2318-4" MDRO Infection or C.difficile infection (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-21165).

Figure 116: MDRO Observation Example

< !-- The observation is not negated, i.e. the infection was MDRO or CDI -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI MDRO/CDI Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.142"/>

<id nullFlavor="NA"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2318-4"

displayName="MDRO Infection or C.difficile infection"/>

</observation>

Mechanical Ventilation Initiation Act

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 2 - US Realm

Table 333: Mechanical Ventilation Initiation Act Contexts

| Contained By: | Contains: |
| --- | --- |
| [Risk Factors Section in a VAE Report](#S_Risk_Factors_Section_in_a_VAE_Report) (required) |  |

This clinical statement records the location of the patient and the date when mechanical ventilation was initiated.

Table 334: Mechanical Ventilation Initiation Act Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-28378](#C_3311-28378) | ACT |
| @moodCode | 1..1 | SHALL |  | [3311-28379](#C_3311-28379) | EVN |
| templateId | 1..1 | SHALL |  | [3311-28375](#C_3311-28375) |  |
| @root | 1..1 | SHALL |  | [3311-28390](#C_3311-28390) | 2.16.840.1.113883.10.20.22.4.12 |
| templateId | 1..1 | SHALL |  | [3311-28377](#C_3311-28377) |  |
| @root | 1..1 | SHALL |  | [3311-28392](#C_3311-28392) | 2.16.840.1.113883.10.20.5.6.244 |
| @extension | 1..1 | SHALL |  | [3311-28393](#C_3311-28393) | 2017-04-01 |
| id | 1..1 | SHALL |  | [3311-28376](#C_3311-28376) |  |
| @nullFlavor | 1..1 | SHALL |  | [3311-28391](#C_3311-28391) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| code | 1..1 | SHALL |  | [3311-28367](#C_3311-28367) |  |
| @code | 1..1 | SHALL |  | [3311-28380](#C_3311-28380) | 2341-2 |
| @codeSystem | 1..1 | SHALL |  | [3311-28381](#C_3311-28381) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [3311-28368](#C_3311-28368) |  |
| @code | 1..1 | SHALL |  | [3311-28382](#C_3311-28382) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [3311-28369](#C_3311-28369) |  |
| low | 1..1 | SHALL |  | [3311-28383](#C_3311-28383) |  |
| participant | 1..1 | SHALL |  | [3311-28370](#C_3311-28370) |  |
| @typeCode | 1..1 | SHALL |  | [3311-28384](#C_3311-28384) | LOC |
| participantRole | 1..1 | SHALL |  | [3311-28371](#C_3311-28371) |  |
| @classCode | 1..1 | SHALL |  | [3311-28385](#C_3311-28385) | SDLOC |
| id | 1..1 | SHALL |  | [3311-28372](#C_3311-28372) |  |
| @root | 1..1 | SHALL |  | [3311-28373](#C_3311-28373) |  |
| @extension | 1..1 | SHALL |  | [3311-28387](#C_3311-28387) |  |
| playingEntity | 1..1 | SHALL |  | [3311-28374](#C_3311-28374) |  |
| @classCode | 1..1 | SHALL |  | [3311-28388](#C_3311-28388) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| code | 1..1 | SHALL |  | [3311-28389](#C_3311-28389) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |

1. Conforms to Procedure Activity Act template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.12).
2. SHALL contain exactly one [1..1] @classCode="ACT" (CONF:3311-28378).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:3311-28379).
4. SHALL contain exactly one [1..1] templateId (CONF:3311-28375) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.12" (CONF:3311-28390).
5. SHALL contain exactly one [1..1] templateId (CONF:3311-28377) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.244" (CONF:3311-28392).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-28393).
6. SHALL contain exactly one [1..1] id (CONF:3311-28376).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28391).
7. SHALL contain exactly one [1..1] code (CONF:3311-28367).
   1. This code SHALL contain exactly one [1..1] @code="2341-2" Mechanical ventilation initiation (CONF:3311-28380).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3311-28381).
8. SHALL contain exactly one [1..1] statusCode (CONF:3311-28368).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3311-28382).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:3311-28369).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:3311-28383).
10. SHALL contain exactly one [1..1] participant (CONF:3311-28370).
    1. This participant SHALL contain exactly one [1..1] @typeCode="LOC" (CONF:3311-28384).
    2. This participant SHALL contain exactly one [1..1] participantRole (CONF:3311-28371).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" (CONF:3311-28385).
       2. This participantRole SHALL contain exactly one [1..1] id (CONF:3311-28372).
          1. This id SHALL contain exactly one [1..1] @root (CONF:3311-28373).
             1. This id/@root SHALL contain the facility identifier (CONF:3311-28386).
          2. This id SHALL contain exactly one [1..1] @extension (CONF:3311-28387).
       3. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:3311-28374).
          1. This playingEntity SHALL contain exactly one [1..1] @classCode="PLC" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:3311-28388).
          2. This playingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:3311-28389).

Figure 117: Mechanical Ventilation Initiation Example

<act classCode="ACT" moodCode="EVN">

<!-- [C-CDA R1.1] Procedure Activity Act -->

<templateId root="2.16.840.1.113883.10.20.22.4.12" />

<!-- [HAI] Mechanical Ventilation Initiation Act -->

<templateId root="2.16.840.1.113883.10.20.5.6.244" extension="2017-04-01" />

<id nullFlavor="NA" />

<code code="2341-2"

displayName="Mechanical ventilation initiation"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

<statusCode code="completed" />

<effectiveTime>

<low value="20170112" />

</effectiveTime>

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<!-- root = facility assigned OID;

extension = NHSN location ("your code") -->

<id root="2.16.840.1.114222.4.3.2.11" extension="123456" />

<playingEntity classCode="PLC">

<code code="1029-8"

displayName="Medical/Surgical Critical Care"

codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthCareServiceLocation" />

</playingEntity>

</participantRole>

</participant>

</act>

NHSN Comment

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 (closed)]

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Table 335: NHSN Comment Contexts

| Contained By: | Contains: |
| --- | --- |
| [NHSN Comment Section](#S_NHSN_Comment_Section) (required) |  |

A comment is free text information of less than 2000 characters. A comment can contain information that is relevant to the whole report (it is not specific to any section of a report).

Table 336: NHSN Comment Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-87](#C_3311-87) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3311-88](#C_3311-88) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3311-79](#C_3311-79) |  |
| @root | 1..1 | SHALL |  | [3311-89](#C_3311-89) | 2.16.840.1.113883.10.20.5.6.243 |
| @extension | 1..1 | SHALL |  | [3311-92](#C_3311-92) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-80](#C_3311-80) |  |
| @code | 1..1 | SHALL |  | [3311-90](#C_3311-90) | 86467-8 |
| @codeSystem | 1..1 | SHALL |  | [3311-91](#C_3311-91) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| text | 1..1 | SHALL |  | [3311-81](#C_3311-81) |  |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3311-87).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3311-88).
3. SHALL contain exactly one [1..1] templateId (CONF:3311-79) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.243" (CONF:3311-89).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-92).
4. SHALL contain exactly one [1..1] code (CONF:3311-80).
   1. This code SHALL contain exactly one [1..1] @code="86467-8" Report comment Narrative (CONF:3311-90).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-91).
5. SHALL contain exactly one [1..1] text (CONF:3311-81).
   1. The length of the free text comment SHALL be less than 2000 characters (CONF:3311-93).

Figure 118: NHSN Comment Example

<act classCode="ACT" moodCode="EVN">

<!-- [HAI R3D2] NHSN Comment -->

<templateId root="2.16.840.1.113883.10.20.5.6.243" extension="2017-04-01" />

<code code="86467-8"

displayName="Report comment Narrative"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<!-- Less than 2000 characters -->

<text>NHSN text comment that is less than 2000 characters.</text>

</act>

NHSN COVID-19 Condition Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01 (closed)]

Published as part of NHSN Healthcare Associated Infection Reports Release 4, STU 1 - US Realm

Table 337: NHSN COVID-19 Condition Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [COVID-19 Section (V2)](#S_COVID19_Section_V2) (required) |  |

*NOTE*:\*\* This template represents a clinician's observation of whether a patient has or does not have a condition of COVID-19. It is not intended to replace lab results. This template is ONLY for use in NHSN HAI reporting.\*\*

This observation records whether the person had COVID-19 or did not have COVID-19.

If the person:

* **Did not have COVID-19**: set value to 1240591000000102 |Severe acute respiratory syndrome coronavirus 2 not detected (finding)
* **Had COVID-19**: set value to 840539006 |Disease caused by severe acute respiratory syndrome coronavirus 2 (disorder)

Table 338: NHSN COVID-19 Condition Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4475-16](#C_4475-16) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4475-17](#C_4475-17) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [4475-18](#C_4475-18) | false |
| templateId | 1..1 | SHALL |  | [4475-1](#C_4475-1) |  |
| @root | 1..1 | SHALL |  | [4475-7](#C_4475-7) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [4475-6](#C_4475-6) |  |
| @root | 1..1 | SHALL |  | [4475-14](#C_4475-14) | 2.16.840.1.113883.10.20.5.6.270 |
| @extension | 1..1 | SHALL |  | [4475-15](#C_4475-15) | 2021-01-01 |
| id | 1..1 | SHALL |  | [4475-2](#C_4475-2) |  |
| @nullFlavor | 1..1 | SHALL |  | [4475-8](#C_4475-8) | NA |
| code | 1..1 | SHALL |  | [4475-3](#C_4475-3) |  |
| @code | 1..1 | SHALL |  | [4475-9](#C_4475-9) | 55607006 |
| @codeSystem | 1..1 | SHALL |  | [4475-10](#C_4475-10) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| statusCode | 1..1 | SHALL |  | [4475-4](#C_4475-4) |  |
| @code | 1..1 | SHALL |  | [4475-11](#C_4475-11) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [4475-5](#C_4475-5) | urn:oid:2.16.840.1.113883.10.20.5.9.40 (NHSN COVID19 Case Classification) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4475-16).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4475-17).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:4475-18).
5. SHALL contain exactly one [1..1] templateId (CONF:4475-1) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4475-7).
6. SHALL contain exactly one [1..1] templateId (CONF:4475-6) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.270" (CONF:4475-14).
   2. SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-15).
7. SHALL contain exactly one [1..1] id (CONF:4475-2).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4475-8).
8. SHALL contain exactly one [1..1] code (CONF:4475-3).
   1. This code SHALL contain exactly one [1..1] @code="55607006" Problem (CONF:4475-9).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:4475-10).
9. SHALL contain exactly one [1..1] statusCode (CONF:4475-4).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4475-11).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSN COVID19 Case Classification](#NHSN_COVID19_Case_Classification) urn:oid:2.16.840.1.113883.10.20.5.9.40 DYNAMIC (CONF:4475-5).

Table 339: NHSN COVID19 Case Classification

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN COVID19 Case Classification urn:oid:2.16.840.1.113883.10.20.5.9.40  (Clinical Focus: COVID-19 conditions associated with confirmed case status.),(Data Element Scope: Problem Observation code (CDA) or Condition code (FHIR). Used to identify patients with confirmed COVID-19.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 6/1/2021 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.40/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1240591000000102 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Severe acute respiratory syndrome coronavirus 2 not detected (finding) |
| 840539006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Disease caused by Severe acute respiratory syndrome coronavirus 2 (disorder) |

Figure 119: NHSN COVID-19 Condition Observation (V2) Example - Had COVID-19

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- [HAI R4D1] NHSN COVID-19 Condition Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.270" extension="2021-01-01"/>

<id nullFlavor="NA"/>

<code code="55607006"

displayName="Problem"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="840539006"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Disease caused by severe acute respiratory syndrome coronavirus 2"/>

</observation>

Figure 120: NHSN COVID-19 Condition Observation (V2) Example - Did not have COVID-19

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- [HAI R4D1] NHSN COVID-19 Condition Observation Example (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.270" extension="2021-01-01"/>

<id nullFlavor="NA"/>

<code code="55607006"

displayName="Problem"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="1240591000000102"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Severe acute respiratory syndrome coronavirus 2 not detected (finding)"/>

</observation>

No Hemovigilance Adverse Reactions Reported This Month Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01 (closed)]

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Table 340: No Hemovigilance Adverse Reactions Reported This Month Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (HV) (V2)](#S_Summary_Data_Section_HV_V2) (required) |  |

This clinical statement represents whether or not there were no hemovigilance adverse reactions reported this month.

If there were no hemovigilance adverse reactions reported this month, set the value of @negationInd to false, otherwise, set the value of @negationInd to true.

On the form from which this template is modeled, this datum is reported as a check box stating that there were no hemovigilance adverse reactions reported this month. Thus, this template reports a "negative" finding. To report that this check box was not checked is to say that it is not the case that no hemovigilance adverse reactions were reported this month, which is subtly different from stating that there were hemovigilance adverse reactions reported this month. Because we are reporting a "negative" finding, negating the statement necessitates some seemingly counter-intuitive logic as follows:

* No hemovigilance adverse reactions reported this month = ASSERTION + negationInd="false" (the assertion that there were no HV adverse reactions is not negated)
* Otherwise = ASSERTION + negationInd="true" (the assertion that there were no HV adverse reactions is negated).

Table 341: No Hemovigilance Adverse Reactions Reported This Month Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1202-30632](#C_1202-30632) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1202-30633](#C_1202-30633) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [1202-30634](#C_1202-30634) |  |
| templateId | 1..1 | SHALL |  | [1202-30627](#C_1202-30627) |  |
| @root | 1..1 | SHALL |  | [1202-30635](#C_1202-30635) | 2.16.840.1.113883.10.20.5.6.232 |
| @extension | 1..1 | SHALL |  | [1202-30636](#C_1202-30636) | 2015-10-01 |
| code | 1..1 | SHALL |  | [1202-30624](#C_1202-30624) |  |
| @code | 1..1 | SHALL | CS | [1202-30628](#C_1202-30628) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1202-30629](#C_1202-30629) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1202-30625](#C_1202-30625) |  |
| @code | 1..1 | SHALL |  | [1202-30630](#C_1202-30630) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1202-30626](#C_1202-30626) |  |
| @code | 1..1 | SHALL |  | [1202-30631](#C_1202-30631) | 3540-2 |
| @codeSystem | 1..1 | SHALL |  | [1202-30651](#C_1202-30651) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1202-30632).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1202-30633).

If there were no hemovigilance adverse reactions reported this month, set the value of @negationInd to false. If there were hemovigilance adverse reactions reported this month, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:1202-30634).
2. SHALL contain exactly one [1..1] templateId (CONF:1202-30627) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.232" (CONF:1202-30635).
   2. SHALL contain exactly one [1..1] @extension="2015-10-01" (CONF:1202-30636).
3. SHALL contain exactly one [1..1] code (CONF:1202-30624).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1202-30628).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1202-30629).
4. SHALL contain exactly one [1..1] statusCode (CONF:1202-30625).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1202-30630).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1202-30626).
   1. This value SHALL contain exactly one [1..1] @code="3540-2" No hemovigilance adverse reactions reported this month (CONF:1202-30631).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1202-30651).

Figure 121: No Hemovigilance Adverse Reactions Reported This Month Observation Example

<!-- If there were no hemovigilance adverse reactions reported this month,

set the value of @negationInd to false.

If there were hemovigilance adverse reactions reported this month,

set the value of @negationInd to true. -->

<!-- There were no hemovigilance adverse reactions reported this month so negationInd='false' -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- No Hemovigilance Adverse Reactions Reported This Month Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.232"

extension="2015-10-01" />

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3540-2"

displayName="No hemovigilance adverse reactions reported this month" />

</observation>

No Hemovigilance Incidents Reported This Month Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01 (closed)]

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Table 342: No Hemovigilance Incidents Reported This Month Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (HV) (V2)](#S_Summary_Data_Section_HV_V2) (required) |  |

This clinical statement represents whether or not there were no hemovigilance incidents reported this month.

If there were no hemovigilance incidents reported this month, set the value of @negationInd to false, otherwise, set the value of @negationInd to true.

On the form from which this template is modeled, this datum is reported as a check box stating that there were no incidents reported this month. Thus, this template reports a "negative" finding. To report that this check box was not checked is to say that it is not the case that no hemovigilance incidents were reported this month, which is subtly different from stating that there were hemovigilance incidents reported this month. Because we are reporting a "negative" finding, negating the statement necessitates some seemingly counter-intuitive logic as follows:

* No hemovigilance incidents reported this month = ASSERTION + negationInd="false" (the assertion that there were no HV incidents is not negated)
* Otherwise = ASSERTION + negationInd="true" (the assertion that there were no HV incidents is negated).

Table 343: No Hemovigilance Incidents Reported This Month Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1202-30647](#C_1202-30647) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1202-30648](#C_1202-30648) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [1202-30649](#C_1202-30649) |  |
| templateId | 1..1 | SHALL |  | [1202-30640](#C_1202-30640) |  |
| @root | 1..1 | SHALL |  | [1202-30645](#C_1202-30645) | 2.16.840.1.113883.10.20.5.6.233 |
| @extension | 1..1 | SHALL |  | [1202-30646](#C_1202-30646) | 2015-10-01 |
| code | 1..1 | SHALL |  | [1202-30637](#C_1202-30637) |  |
| @code | 1..1 | SHALL | CS | [1202-30641](#C_1202-30641) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1202-30642](#C_1202-30642) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1202-30638](#C_1202-30638) |  |
| @code | 1..1 | SHALL |  | [1202-30643](#C_1202-30643) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1202-30639](#C_1202-30639) |  |
| @code | 1..1 | SHALL |  | [1202-30644](#C_1202-30644) | 3541-0 |
| @codeSystem | 1..1 | SHALL |  | [1202-30650](#C_1202-30650) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1202-30647).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1202-30648).

If there were no hemovigilance incidents reported this month, set the value of @negationInd to false. If there were hemovigilance incidents reported this month, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:1202-30649).
2. SHALL contain exactly one [1..1] templateId (CONF:1202-30640) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.233" (CONF:1202-30645).
   2. SHALL contain exactly one [1..1] @extension="2015-10-01" (CONF:1202-30646).
3. SHALL contain exactly one [1..1] code (CONF:1202-30637).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1202-30641).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1202-30642).
4. SHALL contain exactly one [1..1] statusCode (CONF:1202-30638).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1202-30643).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1202-30639).
   1. This value SHALL contain exactly one [1..1] @code="3541-0" No hemovigilance incidents reported this month (CONF:1202-30644).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1202-30650).

Figure 122: No Hemovigilance Incidents Reported This Month Observation

<!-- No Hemovigilance Incidents Reported This Month Observation -->

<!-- If there were no hemovigilance incidents reported this month,

set the value of @negationInd to false.

If there were hemovigilance incidents reported this month,

set the value of @negationInd to true. -->

<!-- There were hemovigilance incidents reported this month so negationInd='true' -->

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- No Hemovigilance Incidents Reported This Month Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.233"

extension="2015-10-01" />

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" code="3541-0"

displayName="No hemovigilance incidents reported this month" />

</observation>

Observed or Suspected Patient Injection into Vascular Line Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

Table 344: Observed or Suspected Patient Injection into Vascular Line Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required) |  |

This observation records whether there was observed or suspected patient injection into vascular line(s) within the BSI infection window period.

If there was observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of @negationInd to false. If there was not observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of @negationInd to true.

Table 345: Observed or Suspected Patient Injection into Vascular Line Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3357-30647](#C_3357-30647) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3357-30648](#C_3357-30648) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3357-30649](#C_3357-30649) |  |
| templateId | 1..1 | SHALL |  | [3357-30632](#C_3357-30632) |  |
| @root | 1..1 | SHALL |  | [3357-30638](#C_3357-30638) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [3357-30637](#C_3357-30637) |  |
| @root | 1..1 | SHALL |  | [3357-30645](#C_3357-30645) | 2.16.840.1.113883.10.20.5.6.251 |
| @extension | 1..1 | SHALL |  | [3357-30646](#C_3357-30646) | 2018-04-01 |
| id | 1..1 | SHALL |  | [3357-30633](#C_3357-30633) |  |
| @nullFlavor | 1..1 | SHALL |  | [3357-30639](#C_3357-30639) | NA |
| code | 1..1 | SHALL |  | [3357-30634](#C_3357-30634) |  |
| @code | 1..1 | SHALL |  | [3357-30640](#C_3357-30640) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3357-30641](#C_3357-30641) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3357-30635](#C_3357-30635) |  |
| @code | 1..1 | SHALL |  | [3357-30642](#C_3357-30642) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3357-30636](#C_3357-30636) |  |
| @code | 1..1 | SHALL | CS | [3357-30643](#C_3357-30643) | 3056-9 |
| @codeSystem | 1..1 | SHALL |  | [3357-30644](#C_3357-30644) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3357-30647).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3357-30648).

If there was observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of @negationInd to false. If there was not observed or suspected patient injection into vascular line(s) within the BSI infection window period, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3357-30649).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-30632) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:3357-30638).
3. SHALL contain exactly one [1..1] templateId (CONF:3357-30637) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.251" (CONF:3357-30645).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30646).
4. SHALL contain exactly one [1..1] id (CONF:3357-30633).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3357-30639).
5. SHALL contain exactly one [1..1] code (CONF:3357-30634).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3357-30640).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30641).
6. SHALL contain exactly one [1..1] statusCode (CONF:3357-30635).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3357-30642).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3357-30636).
   1. This value SHALL contain exactly one [1..1] @code="3056-9" Observed or suspected patient injection into vascular line(s) within the BSI infection window (CONF:3357-30643).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30644).

Figure 123: Observed or Suspected Patient Injection into Vascular Line Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- [HAI R3D3] Observed or Suspected Patient Injection into Vascular Line Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.251" extension="2018-04-01"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="3056-9"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Observed or suspected patient injection into vascular line(s)

within the BSI infection window period"/>

</observation>

Occasion of HAI Detection Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.144 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 346: Occasion of HAI Detection Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection-Type Observation](#E_InfectionType_Observation) (optional) |  |

This observation records when, in relation to an admission (a surgery stay), an HAI was detected.

Table 347: Occasion of HAI Detection Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.144) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21716](#C_86-21716) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21717](#C_86-21717) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21718](#C_86-21718) | false |
| templateId | 1..1 | SHALL |  | [86-28259](#C_86-28259) |  |
| @root | 1..1 | SHALL |  | [86-28260](#C_86-28260) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21721](#C_86-21721) |  |
| @root | 1..1 | SHALL |  | [86-21722](#C_86-21722) | 2.16.840.1.113883.10.20.5.6.144 |
| id | 1..1 | SHALL |  | [86-21723](#C_86-21723) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22773](#C_86-22773) | NA |
| code | 1..1 | SHALL |  | [86-21724](#C_86-21724) |  |
| @code | 1..1 | SHALL |  | [86-21725](#C_86-21725) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28383](#C_86-28383) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21726](#C_86-21726) |  |
| @code | 1..1 | SHALL |  | [86-21727](#C_86-21727) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21728](#C_86-21728) | urn:oid:2.16.840.1.113883.13.12 (NHSNOccasionOfDetectionCode) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21716).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21717).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-21718).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28259) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28260).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21721) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.144" (CONF:86-21722).
7. SHALL contain exactly one [1..1] id (CONF:86-21723).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22773).
8. SHALL contain exactly one [1..1] code (CONF:86-21724).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21725).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28383).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21726).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21727).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNOccasionOfDetectionCode](#NHSNOccasionOfDetectionCode) urn:oid:2.16.840.1.113883.13.12 DYNAMIC (CONF:86-21728).

Table 348: NHSNOccasionOfDetectionCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNOccasionOfDetectionCode urn:oid:2.16.840.1.113883.13.12  (Clinical Focus: NHSN surveillance reporting:),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.12/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1505-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Post-discharge surveillance |
| 1510-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Admission (during the stay in which the surgery was performed) |
| 1516-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Readmission to facility where procedure was performed |
| 1517-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Readmission to facility other than where procedure was performed |

Figure 124: Occasion of HAI Detection Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Occasion of HAI Detection Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.144"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1510-7"

displayName="Admission (during the stay in which the surgery was performed)"/>

</observation>

Other Facility Discharge Act

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 349: Other Facility Discharge Act Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounters Section in a LIO Report (V2)](#S_Encounters_Section_in_a_LIO_Report_V2) (required) | [Other Facility Discharge Encounter](#E_Other_Facility_Discharge_Encounter) (optional) |

This act template is a wrapper around the Other Facility Discharge Encounter template. The act identifies that the contained encounter represents an encounter at a facility from which the patient has been discharged in the past four weeks, while the encounter template records the type of encounter and the type of facility. Multiple discharge encounters can be recorded. Use nullFlavor="NA" where the other facility discharge is not applicable (i.e., the patient has not been discharged from another facility in the past four weeks). Use nullFlavor="UNK" when it is unknown whether or not the patient has been discharged from another facility in the past four weeks.

Table 350: Other Facility Discharge Act Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.228:2014-12-01) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [1129-30580](#C_1129-30580) | urn:oid:2.16.840.1.113883.10.20.5.9.2 (NullValues\_UNK\_NA) |
| @classCode | 1..1 | SHALL |  | [1129-30585](#C_1129-30585) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [1129-30586](#C_1129-30586) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30577](#C_1129-30577) |  |
| @root | 1..1 | SHALL |  | [1129-30581](#C_1129-30581) | 2.16.840.1.113883.10.20.5.6.228 |
| @extension | 1..1 | SHALL |  | [1129-30582](#C_1129-30582) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-30578](#C_1129-30578) |  |
| @code | 1..1 | SHALL |  | [1129-30583](#C_1129-30583) | 3004-9 |
| @codeSystem | 1..1 | SHALL |  | [1129-30584](#C_1129-30584) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| entryRelationship | 0..\* | SHOULD |  | [1129-30576](#C_1129-30576) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30587](#C_1129-30587) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| encounter | 1..1 | SHALL |  | [1129-30579](#C_1129-30579) | [Other Facility Discharge Encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01](#E_Other_Facility_Discharge_Encounter) |

Use nullFlavor="NA" where the other facility discharge is not applicable (i.e. the patient has not been discharged from another facility in the past four weeks). Use nullFlavor="UNK" when it is unknown whether or not the patient has been discharged from another facility in the past four weeks.

1. MAY contain zero or one [0..1] @nullFlavor, which SHALL be selected from ValueSet [NullValues\_UNK\_NA](#NullValues_UNK_NA) urn:oid:2.16.840.1.113883.10.20.5.9.2 STATIC 2014-11-01 (CONF:1129-30580).
2. SHALL contain exactly one [1..1] @classCode="ACT" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-30585).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-30586).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30577) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.228" (CONF:1129-30581).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30582).
5. SHALL contain exactly one [1..1] code (CONF:1129-30578).
   1. This code SHALL contain exactly one [1..1] @code="3004-9" Patient discharged from another facility in the past four weeks (CONF:1129-30583).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30584).

Where the other facility discharge is not applicable or unknown, this entryRelationship will not be present.

Multiple discharges from different facilities in the past four weeks can be recorded.

1. SHOULD contain zero or more [0..\*] entryRelationship (CONF:1129-30576).
   1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" Component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-30587).
   2. The entryRelationship, if present, SHALL contain exactly one [1..1] [Other Facility Discharge Encounter](#E_Other_Facility_Discharge_Encounter) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01) (CONF:1129-30579).

Table 351: NullValues\_UNK\_NA

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NullValues\_UNK\_NA urn:oid:2.16.840.1.113883.10.20.5.9.2  Null values of unknown and not applicable.  Value Set Source: <https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2863> | | | |
| Code | Code System | Code System OID | Print Name |
| UNK | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | Unknown |
| NA | HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 | Not applicable |

Figure 125: Other Facility Discharge Act Example

<act classCode="ACT" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.228"

extension="2014-12-01" />

<code code="3004-9"

displayName="Patient discharged from another facility in the past four weeks"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

<!-- Can have more than one discharge from different facilities in the past four weeks

each represented by a different encounter -->

<!-- First encounter -->

<entryRelationship typeCode="COMP">

<!-- Other Facility Discharge Encounter -->

<encounter classCode="ENC" moodCode="EVN">

<!-- CCD Encounter activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- Other Facility Discharge Encounter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.218"

extension="2014-12-01" />

...

</encounter>

</entryRelationship>

<!-- Second encounter -->

<entryRelationship typeCode="COMP">

<!-- Other Facility Discharge Encounter -->

<encounter classCode="ENC" moodCode="EVN">

<!-- CCD Encounter activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- Other Facility Discharge Encounter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.218"

extension="2014-12-01" />

...

</encounter>

</entryRelationship>

</act>

Figure 126: Other Facility Discharge Act - Not Applicable Example

<act classCode="ACT" moodCode="EVN" nullFlavor="NA">

<templateId root="2.16.840.1.113883.10.20.5.6.228"

extension="2014-12-01" />

<code code="3004-9"

displayName="Patient discharged from another facility in the past four weeks"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</act>

Figure 127: Other Facility Discharge Act - Unknown Example

<act classCode="ACT" moodCode="EVN" nullFlavor="UNK">

<templateId root="2.16.840.1.113883.10.20.5.6.228"

extension="2014-12-01" />

<code code="3004-9"

displayName="Patient discharged from another facility in the past four weeks"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</act>

Other Facility Discharge Encounter

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 352: Other Facility Discharge Encounter Contexts

| Contained By: | Contains: |
| --- | --- |
| [Other Facility Discharge Act](#E_Other_Facility_Discharge_Act) (optional) |  |

This encounter template represents an encounter at another facility from which the patient was discharged in the past four weeks. The type of encounter is set to "IMP" (inpatient encounter) and the location participant records the type of facility.

Table 353: Other Facility Discharge Encounter Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.218:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-28234](#C_1129-28234) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1129-28235](#C_1129-28235) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30491](#C_1129-30491) |  |
| @root | 1..1 | SHALL |  | [1129-30492](#C_1129-30492) | 2.16.840.1.113883.10.20.22.4.49 |
| templateId | 1..1 | SHALL |  | [1129-28226](#C_1129-28226) |  |
| @root | 1..1 | SHALL |  | [1129-28233](#C_1129-28233) | 2.16.840.1.113883.10.20.5.6.218 |
| @extension | 1..1 | SHALL |  | [1129-30290](#C_1129-30290) | 2014-12-01 |
| id | 1..\* | SHALL |  | [1129-28222](#C_1129-28222) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-28230](#C_1129-28230) | NA |
| code | 1..1 | SHALL |  | [1129-28223](#C_1129-28223) |  |
| @code | 1..1 | SHALL |  | [1129-28231](#C_1129-28231) | IMP |
| @codeSystem | 1..1 | SHALL |  | [1129-30464](#C_1129-30464) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| effectiveTime | 1..1 | SHALL |  | [1129-28224](#C_1129-28224) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30255](#C_1129-30255) | NA |
| participant | 1..1 | SHALL |  | [1129-28227](#C_1129-28227) |  |
| @typeCode | 1..1 | SHALL |  | [1129-28239](#C_1129-28239) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1129-28228](#C_1129-28228) |  |
| @classCode | 1..1 | SHALL |  | [1129-28236](#C_1129-28236) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| code | 1..1 | SHALL |  | [1129-28229](#C_1129-28229) |  |
| @code | 1..1 | SHALL |  | [1129-28238](#C_1129-28238) | urn:oid:2.16.840.1.114222.4.11.7238 (NHSNPreviousFacility) |

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-28234).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-28235).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30491) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:1129-30492).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-28226) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.218" (CONF:1129-28233).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30290).
6. SHALL contain at least one [1..\*] id (CONF:1129-28222).
   1. Such ids SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-28230).
7. SHALL contain exactly one [1..1] code (CONF:1129-28223).
   1. This code SHALL contain exactly one [1..1] @code="IMP" inpatient encounter (CONF:1129-28231).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30464).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-28224).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30255).
9. SHALL contain exactly one [1..1] participant (CONF:1129-28227).
   1. This participant SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1129-28239).
   2. This participant SHALL contain exactly one [1..1] participantRole (CONF:1129-28228).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:1129-28236).
      2. This participantRole SHALL contain exactly one [1..1] code (CONF:1129-28229).
         1. This code SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSNPreviousFacility](#NHSNPreviousFacility) urn:oid:2.16.840.1.114222.4.11.7238 DYNAMIC (CONF:1129-28238).

Table 354: NHSNPreviousFacility

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNPreviousFacility urn:oid:2.16.840.1.114222.4.11.7238  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the previous facility from which the patient has been discharged.),(Data Element Scope: A code identifying the type of facility the patient was previously discharged.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7238/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 3005-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Nursing Home/Skilled Nursing Facility |
| 3006-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Other inpatient healthcare setting (e.g., Acute Care Hospital, LTAC, Rehabilitation, etc.) |

Figure 128: Other Facility Discharge Encounter Example

<encounter classCode="ENC" moodCode="EVN">

<!-- C-CDA Encounter activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- Other Facility Discharge Encounter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.218"

extension="2014-12-01" />

<id nullFlavor="NA" />

<code code="IMP"

displayName="inpatient encounter"

codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode" />

<effectiveTime nullFlavor="NA" />

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<code code="3005-6"

displayName="Nursing Home/Skilled Nursing Facility"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</participantRole>

</participant>

</encounter>

Pathogen Identified Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.145 (closed)]

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Table 355: Pathogen Identified Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Findings Organizer](#E_Findings_Organizer) (required)  [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) (optional)  [Findings Section in an OPC SSI Report](#S_Findings_Section_in_an_OPC_SSI_Report) (optional) |  |

This template either represents a pathogen identified or, using a code from the NHSN Pathogens Code value set, records that no pathogens were identified.  
The value set table provides codes for several unspecified species—for example "Acidaminococcus species" (SNOMED CT 131202007, NHSN ACISP)—for use when a more precise code is not available. The code for an unspecified species is preferred to a genus-level code.

Table 356: Pathogen Identified Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.145) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-20909](#C_86-20909) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-20910](#C_86-20910) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28261](#C_86-28261) |  |
| @root | 1..1 | SHALL |  | [86-28262](#C_86-28262) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [86-20913](#C_86-20913) |  |
| @root | 1..1 | SHALL |  | [86-20914](#C_86-20914) | 2.16.840.1.113883.10.20.5.6.145 |
| id | 1..1 | SHALL |  | [86-20915](#C_86-20915) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22777](#C_86-22777) | NA |
| code | 1..1 | SHALL |  | [86-20916](#C_86-20916) |  |
| @code | 1..1 | SHALL |  | [86-20917](#C_86-20917) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 41852-5 |
| statusCode | 1..1 | SHALL |  | [86-20918](#C_86-20918) |  |
| @code | 1..1 | SHALL |  | [86-20919](#C_86-20919) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-22716](#C_86-22716) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22778](#C_86-22778) | NA |
| value | 1..1 | SHALL | CD | [86-20920](#C_86-20920) | urn:oid:2.16.840.1.113883.13.16 (NHSNPathogenCode) |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-20909).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-20910).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28261) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:86-28262).
5. SHALL contain exactly one [1..1] templateId (CONF:86-20913) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.145" (CONF:86-20914).
6. SHALL contain exactly one [1..1] id (CONF:86-20915).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22777).
7. SHALL contain exactly one [1..1] code (CONF:86-20916).
   1. This code SHALL contain exactly one [1..1] @code="41852-5" Microorganism identified (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1 STATIC) (CONF:86-20917).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-20918).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-20919).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-22716).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22778).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNPathogenCode](#NHSNPathogenCode) urn:oid:2.16.840.1.113883.13.16 DYNAMIC (CONF:86-20920).

Table 357: NHSNPathogenCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNPathogenCode urn:oid:2.16.840.1.113883.13.16  (Clinical Focus: NHSN surveillance: Pathogens reported for healthcare-associated infections and antimicrobial resistance.),(Data Element Scope: A code describing an entity organism as a pathogen.),(Inclusion Criteria: ),(Exclusion Criteria: )  Note: Steward Expansion Version 20210514 corresponds to Pathogen Codes 2021 from idm-vendors-9.5.xlsx  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.16/expansion/20210514> | | | |
| Code | Code System | Code System OID | Print Name |
| 10021006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Rahnella aquatilis (organism) |
| 10049004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Streptococcus ferus (organism) |
| 10091000087105 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Bacteroides nordii (organism) |
| 10151000087104 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Cyberlindnera fabianii (organism) |
| 1017006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Lactobacillus casei (organism) |
| 10171000087105 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Malassezia restricta (organism) |
| 10210008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Chaetomium (organism) |
| 10262005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Enterococcus malodoratus (organism) |
| 10276006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Kandleria vitulina (organism) |
| 10334001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Yersinia intermedia (organism) |
| ... | | | |

Figure 129: Pathogen Identified Observation Example - Pathogen Identified

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- HAI Pathogen Identified Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.145"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="41852-5"

displayName="Microorganism identified"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

code="116197008"

displayName="Staphylococcus, coagulase negative (organism)"/>

</observation>

Figure 130: Pathogen Identified Observation Example - No Pathogen Identified

<observation classCode="OBS" moodCode="EVN">

<!-- [C-CDA R1.1] Result Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- [HAI R1] Pathogen Identified Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.145" />

<id nullFlavor="NA" />

<code code="41852-5"

displayName="Microorganism identified"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<statusCode code="completed" />

<effectiveTime nullFlavor="NA" />

<value xsi:type="CD" code="3119-7"

displayName="No pathogen identified"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</observation>

Pathogen Identified Observation (LIO) (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 358: Pathogen Identified Observation (LIO) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Findings Section in a LIO Report (V2)](#S_Findings_Section_in_a_LIO_Report_V2) (required) | [Specimen Collection Procedure (LIO)](#E_Specimen_Collection_Procedure_LIO) (required)  [Bacterial Isolate Tested for Carbapenemase Observation](#E_Bacterial_Isolate_Tested_for_Carbapen) (optional) |

This template records a laboratory-identified microorganism and details of the specimen collection.  
The microorganism is recorded in the same way as in the Findings Organizer in infection reports. If the bacterial isolate was one of CRE-Klebsiella (CREKLEB), CRE-Ecoli (CREECOLI), or CRE-Enterobacter (CREENTERO) any tests for carbapenemase are recorded, along with any carbapenemases identified.

Table 359: Pathogen Identified Observation (LIO) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-19867](#C_1129-19867) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-19868](#C_1129-19868) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30525](#C_1129-30525) |  |
| @root | 1..1 | SHALL |  | [1129-30526](#C_1129-30526) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [1129-19879](#C_1129-19879) |  |
| @root | 1..1 | SHALL |  | [1129-19880](#C_1129-19880) | 2.16.840.1.113883.10.20.5.6.146 |
| @extension | 1..1 | SHALL |  | [1129-30527](#C_1129-30527) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-19881](#C_1129-19881) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-22774](#C_1129-22774) | NA |
| code | 1..1 | SHALL |  | [1129-19869](#C_1129-19869) |  |
| @code | 1..1 | SHALL |  | [1129-19870](#C_1129-19870) | 41852-5 |
| @codeSystem | 1..1 | SHALL |  | [1129-30436](#C_1129-30436) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| statusCode | 1..1 | SHALL |  | [1129-19871](#C_1129-19871) |  |
| @code | 1..1 | SHALL |  | [1129-19872](#C_1129-19872) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [1129-22732](#C_1129-22732) |  |
| value | 1..1 | SHALL | CD | [1129-19873](#C_1129-19873) | urn:oid:2.16.840.1.114222.4.11.3194 (NHSNSignificantPathogenCode) |
| entryRelationship | 1..1 | SHALL |  | [1129-19875](#C_1129-19875) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30434](#C_1129-30434) | COMP |
| procedure | 1..1 | SHALL |  | [1129-19876](#C_1129-19876) | [Specimen Collection Procedure (LIO) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.165](#E_Specimen_Collection_Procedure_LIO) |
| entryRelationship | 0..1 | MAY |  | [1129-30416](#C_1129-30416) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30435](#C_1129-30435) | COMP |
| observation | 1..1 | SHALL |  | [1129-30417](#C_1129-30417) | [Bacterial Isolate Tested for Carbapenemase Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01](#E_Bacterial_Isolate_Tested_for_Carbapen) |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-19867).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-19868).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30525) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30526).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-19879) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.146" (CONF:1129-19880).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30527).
6. SHALL contain exactly one [1..1] id (CONF:1129-19881).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22774).
7. SHALL contain exactly one [1..1] code (CONF:1129-19869).
   1. This code SHALL contain exactly one [1..1] @code="41852-5" Microorganism identified (CONF:1129-19870).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:1129-30436).
8. SHALL contain exactly one [1..1] statusCode (CONF:1129-19871).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-19872).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-22732).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNSignificantPathogenCode](#NHSNSignificantPathogenCode) urn:oid:2.16.840.1.114222.4.11.3194 DYNAMIC (CONF:1129-19873).
11. SHALL contain exactly one [1..1] entryRelationship (CONF:1129-19875) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:1129-30434).
    2. SHALL contain exactly one [1..1] [Specimen Collection Procedure (LIO)](#E_Specimen_Collection_Procedure_LIO) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.165) (CONF:1129-19876).

If value is CRE-Klebsiella (CREKLEB), CRE-Ecoli (CREECOLI), or CRE-Enterobacter (CREENTERO), then this entryRelationship is required.

1. MAY contain zero or one [0..1] entryRelationship (CONF:1129-30416) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:1129-30435).
   2. SHALL contain exactly one [1..1] [Bacterial Isolate Tested for Carbapenemase Observation](#E_Bacterial_Isolate_Tested_for_Carbapen) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01) (CONF:1129-30417).

Table 360: NHSNSignificantPathogenCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSignificantPathogenCode urn:oid:2.16.840.1.114222.4.11.3194  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the significant pathogen identified.),(Data Element Scope: A coded observation value representing the type of significant pathogen.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3194/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 113727004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Vancomycin resistant enterococcus (organism) |
| 115329001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Methicillin resistant Staphylococcus aureus (organism) |
| 2010-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | MDR-Acinetobacter |
| 2016-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | CephR-Klebsiella |
| 2017-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | CRE-Klebsiella |
| 2018-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | CRE-E. coli |
| 2019-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | CRE-Enterobacter |
| 417943000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Methicillin susceptible Staphylococcus aureus (organism) |
| 5933001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Clostridioides difficile (organism) |

Figure 131: Pathogen Identified Observation (LIO) Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateID -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- HAI Pathogen Identified Observation (LIO) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.146"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.6.1" codeSystemName="LOINC"

code="41852-5" displayName="Microorganism Identified"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD" codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="5933001"

displayName="Clostridium difficile (organism)"/>

<!-- Specimen collection procedure contains specimen collection encounter -->

<entryRelationship typeCode="COMP">

<procedure classCode="PROC" moodCode="EVN">

<!-- Specimen Collection Procedure (LIO) -->

<templateId root="2.16.840.1.113883.10.20.5.6.165" />

...

</procedure>

</entryRelationship>

<!-- If value is CRE-Klebsiella (CREKLEB), CRE-Ecoli (CREECOLI), or CRE-Enterobacter

(CREENTERO), then this entryRelationship is required -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Bacterial Isolate Tested for Carbapenemase Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.222"

extension="2014-12-01"/>

...

</observation>

</entryRelationship>

<observation/>

Pathogen Ranking Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.147 (closed)]

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Table 361: Pathogen Ranking Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Findings Organizer](#E_Findings_Organizer) (required) |  |

The NHSN pathogen findings record up to three pathogens. This observation records the relative importance of a pathogen in that set with respect to its role in the infection.  
The value is a coded ordinal, where the value of @code is the number 1 or 2 or 3; where 1 represents the highest-ranked pathogen of up to three pathogens recorded.

Table 362: Pathogen Ranking Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.147) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19787](#C_86-19787) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19788](#C_86-19788) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28263](#C_86-28263) |  |
| @root | 1..1 | SHALL |  | [86-28264](#C_86-28264) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19797](#C_86-19797) |  |
| @root | 1..1 | SHALL |  | [86-19798](#C_86-19798) | 2.16.840.1.113883.10.20.5.6.147 |
| id | 1..1 | SHALL |  | [86-19799](#C_86-19799) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22780](#C_86-22780) | NA |
| code | 1..1 | SHALL |  | [86-19789](#C_86-19789) |  |
| @code | 1..1 | SHALL |  | [86-19790](#C_86-19790) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28384](#C_86-28384) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19791](#C_86-19791) |  |
| @code | 1..1 | SHALL |  | [86-19792](#C_86-19792) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CO | [86-19793](#C_86-19793) |  |
| @code | 1..1 | SHALL |  | [86-28409](#C_86-28409) |  |
| @codeSystem | 1..1 | SHALL |  | [86-28411](#C_86-28411) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19787).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19788).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28263) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28264).
5. SHALL contain exactly one [1..1] templateId (CONF:86-19797) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.147" (CONF:86-19798).
6. SHALL contain exactly one [1..1] id (CONF:86-19799).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22780).
7. SHALL contain exactly one [1..1] code (CONF:86-19789).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19790).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28384).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-19791).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19792).
9. SHALL contain exactly one [1..1] value with @xsi:type="CO" (CONF:86-19793).
   1. This value SHALL contain exactly one [1..1] @code (CONF:86-28409).
      1. SHALL be the number 1 or 2 or 3, where 1 represents the highest-ranked pathogen of up to three pathogens recorded (CONF:86-28410).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28411).

Figure 132: Pathogen Ranking Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Pathogen Ranking Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.147"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

codeSystemName="HL7"

code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CO"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1"

displayName="Pathogen ranking 1"/>

</observation>

Pathogen Reduced Apheresis Platelet Usage Summary Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01 (closed)]

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Table 363: Pathogen Reduced Apheresis Platelet Usage Summary Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) (optional) | [ISBT Product Code Summary Observation (V2)](#E_ISBT_Product_Code_Summary_ObsV2) (optional) |

This template represents the number of units transfused, aliquots transfused, or total discards for pathogen reduced apheresis platelets.

If the value = 0, there *SHALL NOT* be a contained observation. If the value is > 0 then each specific subcategory product that is > 0 *SHALL* be listed in a separate contained ISBT Product Code Summary Observation.

Table 364: Pathogen Reduced Apheresis Platelet Usage Summary Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-30789](#C_3247-30789) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3247-30790](#C_3247-30790) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3247-30780](#C_3247-30780) |  |
| @root | 1..1 | SHALL |  | [3247-30784](#C_3247-30784) | 2.16.840.1.113883.10.20.5.6.240 |
| @extension | 1..1 | SHALL |  | [3247-30785](#C_3247-30785) | 2016-08-01 |
| code | 1..1 | SHALL |  | [3247-30781](#C_3247-30781) |  |
| @code | 1..1 | SHALL |  | [3247-30786](#C_3247-30786) | urn:oid:2.16.840.1.113883.10.20.5.9.5 (NHSN Pathogen Reduced Apheresis Platelet Usage) |
| statusCode | 1..1 | SHALL |  | [3247-30782](#C_3247-30782) |  |
| @code | 1..1 | SHALL |  | [3247-30787](#C_3247-30787) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | INT | [3247-30788](#C_3247-30788) |  |
| entryRelationship | 0..\* | SHOULD |  | [3247-30779](#C_3247-30779) |  |
| observation | 1..1 | SHALL |  | [3247-30783](#C_3247-30783) | [ISBT Product Code Summary Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01](#E_ISBT_Product_Code_Summary_ObsV2) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3247-30789).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3247-30790).
3. SHALL contain exactly one [1..1] templateId (CONF:3247-30780) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.240" (CONF:3247-30784).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30785).
4. SHALL contain exactly one [1..1] code (CONF:3247-30781).
   1. This code SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSN Pathogen Reduced Apheresis Platelet Usage](#NHSN_Pathogen_Reduced_Apheresis_Platele) urn:oid:2.16.840.1.113883.10.20.5.9.5 DYNAMIC (CONF:3247-30786).
5. SHALL contain exactly one [1..1] statusCode (CONF:3247-30782).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:3247-30787).
6. SHALL contain exactly one [1..1] value with @xsi:type="INT" (CONF:3247-30788).
7. SHOULD contain zero or more [0..\*] entryRelationship (CONF:3247-30779).
   1. The entryRelationship, if present, SHALL contain exactly one [1..1] [ISBT Product Code Summary Observation (V2)](#E_ISBT_Product_Code_Summary_ObsV2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01) (CONF:3247-30783).
8. If the value = 0 there SHALL NOT be a contained observation. If the value is > 0 then each specific subcategory product that is > 0 SHALL be listed in a separate contained ISBT Product Code Summary Observation (CONF:3247-30791).

Table 365: NHSN Pathogen Reduced Apheresis Platelet Usage

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSN Pathogen Reduced Apheresis Platelet Usage urn:oid:2.16.840.1.113883.10.20.5.9.5  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for hemovigilance),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.5/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 3568-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of units transfused: Platelets: Apheresis: Psoralen-treated and in plasma |
| 3569-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of aliquots transfused: Platelets: Apheresis: Psoralen-treated and in plasma |
| ... | | | |

Figure 133: Pathogen Reduced Apheresis Platelet Usage Summary Example

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3D1.1] Pathogen Reduced Apheresis Platelet Usage Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.240" extension="2016-08-01" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3571-7"

displayName="Number of units transfused - Platelets/Apheresis/Psoralen-Treated and in Platelet Additive Solution" />

<statusCode code="completed" />

<value xsi:type="INT" value="75" />

<!--

If the value = 0, there SHALL NOT be a contained observation.

If the value is > 0 then each specific subcategory product that is > 0

SHALL be listed in a separate contained ISBT Product Code Summary Observation.

-->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- ISBT Product Code Summary Observation (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.238" extension="2016-08-01" />

...

</observation>

</entryRelationship>

...

</observation>

Patient Admitted This Encounter Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01 (open)]

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Table 366: Patient Admitted This Encounter Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Specimen Collection Encounter (ARO) (V2)](#E_Specimen_Collection_Encounter_ARO_V2) (required) |  |

This observation represents whether or not the patient was admitted to an inpatient location during this encounter. If the patient was admitted to an inpatient location during this encounter, set the value to true. If the patient was not admitted to an inpatient location during this encounter, set the value to false.

Table 367: Patient Admitted This Encounter Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4459-5](#C_4459-5) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4459-6](#C_4459-6) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4459-4](#C_4459-4) |  |
| @root | 1..1 | SHALL |  | [4459-12](#C_4459-12) | 2.16.840.1.113883.10.20.5.6.266 |
| @extension | 1..1 | SHALL |  | [4459-13](#C_4459-13) | 2020-04-01 |
| code | 1..1 | SHALL |  | [4459-1](#C_4459-1) |  |
| @code | 1..1 | SHALL |  | [4459-7](#C_4459-7) | 95415-6 |
| @codeSystem | 1..1 | SHALL |  | [4459-8](#C_4459-8) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL | BL | [4459-3](#C_4459-3) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4459-5).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4459-6).
3. SHALL contain exactly one [1..1] templateId (CONF:4459-4).
   1. This templateId SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.266" (CONF:4459-12).
   2. This templateId SHALL contain exactly one [1..1] @extension="2020-04-01" (CONF:4459-13).
4. SHALL contain exactly one [1..1] code (CONF:4459-1).
   1. This code SHALL contain exactly one [1..1] @code="95415-6" Patient admitted as an inpatient (CONF:4459-7).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:4459-8).

If the patient was admitted to an inpatient location during this encounter, set the value to true. If the patient was not admitted to an inpatient location during this encounter, set the value to false.

1. SHALL contain exactly one [1..1] value with @xsi:type="BL" (CONF:4459-3).

Figure 134: Patient Admitted This Encounter Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3N1] Patient Admitted This Encounter Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.266" extension="2020-04-01" />

<code code="95415-6"

displayName="Patient admitted as an inpatient"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<!-- If the patient was admitted to an inpatient location during this

encounter, set the value to true.

If the patient was not admitted to an inpatient location during this

encounter, set the value to false. -->

<value xsi:type="BL" value="true" />

</observation>

PICC/IV Team

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.148 (closed)]

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Table 368: PICC/IV Team Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Clinical Statement in a CLIP Report](#E_Procedure_Details_CLIP) (required) |  |

This observation records whether the person who performed the central line insertion was a member of the PICC/IV team. It is used in the Central-Line Insertion Practice Report.

If the performer was a member of the PICC/IV team, set the value of @negationInd to false. If the performer was not a member of the PICC/IV team, set the value of @negationInd to true.

Table 369: PICC/IV Team Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.148) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21214](#C_86-21214) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21215](#C_86-21215) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21216](#C_86-21216) |  |
| templateId | 1..1 | SHALL |  | [86-22002](#C_86-22002) |  |
| @root | 1..1 | SHALL |  | [86-22003](#C_86-22003) | 2.16.840.1.113883.10.20.5.6.148 |
| id | 1..1 | SHALL |  | [86-22004](#C_86-22004) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22779](#C_86-22779) | NA |
| code | 1..1 | SHALL |  | [86-21217](#C_86-21217) |  |
| @code | 1..1 | SHALL |  | [86-21218](#C_86-21218) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28385](#C_86-28385) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21219](#C_86-21219) |  |
| @code | 1..1 | SHALL |  | [86-21220](#C_86-21220) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = completed |
| value | 1..1 | SHALL | CD | [86-21221](#C_86-21221) |  |
| @code | 1..1 | SHALL |  | [86-21222](#C_86-21222) | 2213-7 |
| @codeSystem | 1..1 | SHALL |  | [86-28404](#C_86-28404) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21214).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21215).
3. SHALL contain exactly one [1..1] @negationInd (CONF:86-21216).
4. SHALL contain exactly one [1..1] templateId (CONF:86-22002) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.148" (CONF:86-22003).
5. SHALL contain exactly one [1..1] id (CONF:86-22004).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22779).
6. SHALL contain exactly one [1..1] code (CONF:86-21217).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21218).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28385).
7. SHALL contain exactly one [1..1] statusCode (CONF:86-21219).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" COMPLETED (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 STATIC) (CONF:86-21220).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21221).
   1. This value SHALL contain exactly one [1..1] @code="2213-7" Performer was a member of PICC/IV Team (CONF:86-21222).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28404).

Figure 135: PICC/IV Team Example

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<templateId root="2.16.840.1.113883.10.20.5.6.148"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2213-7"

displayName="Performer was a member of PICC/IV Team"/>

</observation>

Positive Blood Culture Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01 (closed)]

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Table 370: Positive Blood Culture Observation (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Indicator Organizer (V5)](#E_Infection_Indicator_Organizer_V5) (required) | [Suspected Source Observation](#E_Suspected_Source_Observation) (optional)  [Blood Collection Location](#Blood_Collection_Location) (optional) |

This clinical statement is an infection indicator. It is used in an Evidence of Infection (Dialysis) Report.

When the positive blood culture was present, set the value of @negationInd to false and record the event date in effectiveTime/@low. When the positive blood culture was not present, set the value of @negationInd to true set effectiveTime/low/@nullFlavor='NA'.

Table 371: Positive Blood Culture Observation (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-19818](#C_4395-19818) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4395-19819](#C_4395-19819) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [4395-19820](#C_4395-19820) |  |
| templateId | 1..1 | SHALL |  | [4395-30528](#C_4395-30528) |  |
| @root | 1..1 | SHALL |  | [4395-30529](#C_4395-30529) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [4395-19837](#C_4395-19837) |  |
| @root | 1..1 | SHALL |  | [4395-19838](#C_4395-19838) | 2.16.840.1.113883.10.20.5.6.149 |
| @extension | 1..1 | SHALL |  | [4395-30530](#C_4395-30530) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-19839](#C_4395-19839) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-22781](#C_4395-22781) | NA |
| code | 1..1 | SHALL |  | [4395-19821](#C_4395-19821) |  |
| @code | 1..1 | SHALL |  | [4395-19822](#C_4395-19822) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4395-30605](#C_4395-30605) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [4395-19823](#C_4395-19823) |  |
| @code | 1..1 | SHALL |  | [4395-19824](#C_4395-19824) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4395-30676](#C_4395-30676) |  |
| low | 1..1 | SHALL |  | [4395-30677](#C_4395-30677) |  |
| @nullFlavor | 0..1 | MAY |  | [4395-30678](#C_4395-30678) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| @value | 0..1 | MAY |  | [4395-30679](#C_4395-30679) |  |
| value | 1..1 | SHALL | CD | [4395-19825](#C_4395-19825) |  |
| @code | 1..1 | SHALL |  | [4395-19826](#C_4395-19826) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 1955-4 |
| entryRelationship | 1..1 | SHOULD |  | [4395-30308](#C_4395-30308) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30309](#C_4395-30309) | CAUS |
| @inversionInd | 1..1 | SHALL |  | [4395-30310](#C_4395-30310) | true |
| observation | 1..1 | SHALL |  | [4395-30311](#C_4395-30311) | [Suspected Source Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.168](#E_Suspected_Source_Observation) |
| entryRelationship | 1..1 | SHOULD |  | [4395-30312](#C_4395-30312) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30313](#C_4395-30313) | COMP |
| observation | 1..1 | SHALL |  | [4395-30314](#C_4395-30314) | [Blood Collection Location (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01](#Blood_Collection_Location) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-19818).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-19819).

When the positive blood culture was present, set the value of @negationInd to false. When the positive blood culture was not present, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:4395-19820).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-30528) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-30529).
3. SHALL contain exactly one [1..1] templateId (CONF:4395-19837) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.149" (CONF:4395-19838).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30530).
4. SHALL contain exactly one [1..1] id (CONF:4395-19839).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-22781).
5. SHALL contain exactly one [1..1] code (CONF:4395-19821).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4395-19822).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-30605).
6. SHALL contain exactly one [1..1] statusCode (CONF:4395-19823).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4395-19824).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30676).

When the positive blood culture was present, record the event date in effectiveTime/@low. When the positive blood culture was not present, set effectiveTime/low/@nullFlavor='NA'.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30677).
     1. This low MAY contain zero or one [0..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30678).
     2. This low MAY contain zero or one [0..1] @value (CONF:4395-30679).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4395-19825).
   1. This value SHALL contain exactly one [1..1] @code="1955-4" Positive blood culture (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:4395-19826).

If the value of @negationInd is "false" this observation is required to contain the following entryRelationship

1. SHOULD contain exactly one [1..1] entryRelationship (CONF:4395-30308) such that it
   1. SHALL contain exactly one [1..1] @typeCode="CAUS" (CONF:4395-30309).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:4395-30310).
   3. SHALL contain exactly one [1..1] [Suspected Source Observation](#E_Suspected_Source_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.168) (CONF:4395-30311).

If the value of @negationInd is "false" this observation is required to contain the following entryRelationship

1. SHOULD contain exactly one [1..1] entryRelationship (CONF:4395-30312) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:4395-30313).
   2. SHALL contain exactly one [1..1] [Blood Collection Location](#Blood_Collection_Location) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01) (CONF:4395-30314).
2. If the value of @negationInd is 'false' (CONF:4395-19827).
   1. The report *SHALL* contain a Findings Section (CONF:4395-19832).
3. If the value of @negationInd is ‘true’ (CONF:4395-19833).
   1. The report *SHALL NOT* contain a Findings Section (CONF:4395-19834).

Figure 136: Positive Blood Culture Observation (V3) Example

<!-- When the positive blood culture was present, set the value of @negationInd to false

and record the event date in effectiveTime/@low. When the positive blood culture was

not present, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'. -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Positive Blood Culture Observation (V3) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.149"

extension="2019-01-01"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<effectiveTime xsi:type="IVL\_TS">

<low value="20180405" />

</effectiveTime>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1955-4"

displayName="Positive blood culture"/>

<!-- Suspected Source of Pathogen -->

<entryRelationship typeCode="CAUS" inversionInd="true">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Suspected Source of Pathogen templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.168"/>

...

</observation>

</entryRelationship>

<!-- Blood Collection Location -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.219"

extension="2014-12-01"/>

...

</observation>

</entryRelationship>

</observation>

Positive Test for Carbapenemase Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 372: Positive Test for Carbapenemase Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Bacterial Isolate Tested for Carbapenemase Observation](#E_Bacterial_Isolate_Tested_for_Carbapen) (optional) | [Carbapenemase Type Identified Observation](#E_Carbapenemase_Type_Identified_Observa) (optional) |

This template represents whether or not the bacterial isolate tested positive for carbapenemase.

When the bacterial isolate tested positive, set the value of @negationInd to false. When the bacterial isolate did not test positive, set the value of @negationInd to true. When it is unknown whether or not the bacterial isolate tested positive, set the value of @nullFlavor to "UNK".

Table 373: Positive Test for Carbapenemase Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [1129-30413](#C_1129-30413) | UNK |
| @classCode | 1..1 | SHALL |  | [1129-30410](#C_1129-30410) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-30411](#C_1129-30411) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | SHOULD |  | [1129-30412](#C_1129-30412) |  |
| templateId | 1..1 | SHALL |  | [1129-30396](#C_1129-30396) |  |
| @root | 1..1 | SHALL |  | [1129-30405](#C_1129-30405) | 2.16.840.1.113883.10.20.22.4.2 |
| templateId | 1..1 | SHALL |  | [1129-30531](#C_1129-30531) |  |
| @root | 1..1 | SHALL |  | [1129-30532](#C_1129-30532) | 2.16.840.1.113883.10.20.5.6.225 |
| @extension | 1..1 | SHALL |  | [1129-30533](#C_1129-30533) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-30397](#C_1129-30397) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30407](#C_1129-30407) | NA |
| code | 1..1 | SHALL |  | [1129-30393](#C_1129-30393) |  |
| @code | 1..1 | SHALL |  | [1129-30402](#C_1129-30402) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1129-30606](#C_1129-30606) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1129-30394](#C_1129-30394) |  |
| @code | 1..1 | SHALL |  | [1129-30403](#C_1129-30403) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [1129-30589](#C_1129-30589) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-30590](#C_1129-30590) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| value | 1..1 | SHALL | CD | [1129-30395](#C_1129-30395) |  |
| @code | 1..1 | SHALL |  | [1129-30404](#C_1129-30404) | 2048-7 |
| @codeSystem | 1..1 | SHALL |  | [1129-30441](#C_1129-30441) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| entryRelationship | 0..\* | SHOULD |  | [1129-30392](#C_1129-30392) |  |
| @typeCode | 1..1 | SHALL |  | [1129-30400](#C_1129-30400) | COMP |
| observation | 1..1 | SHALL |  | [1129-30462](#C_1129-30462) | [Carbapenemase Type Identified Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01](#E_Carbapenemase_Type_Identified_Observa) |

1. Conforms to Result Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.2).

When it is unknown whether or not the bacterial isolate tested positive, set the value of @nullFlavor to "UNK".

1. MAY contain zero or one [0..1] @nullFlavor="UNK" (CONF:1129-30413).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-30410).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-30411).

When the bacterial isolate tested positive, set the value of @negationInd to false. When the bacterial isolate did not test positive, set the value of @negationInd to true.

1. SHOULD contain zero or one [0..1] @negationInd (CONF:1129-30412).
2. SHALL contain exactly one [1..1] templateId (CONF:1129-30396) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.2" (CONF:1129-30405).
3. SHALL contain exactly one [1..1] templateId (CONF:1129-30531) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.225" (CONF:1129-30532).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30533).
4. SHALL contain exactly one [1..1] id (CONF:1129-30397).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-30407).
5. SHALL contain exactly one [1..1] code (CONF:1129-30393).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:1129-30402).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1129-30606).
6. SHALL contain exactly one [1..1] statusCode (CONF:1129-30394).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-30403).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-30589).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:1129-30590).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1129-30395).
   1. This value SHALL contain exactly one [1..1] @code="2048-7" Isolate tested positive for carbapenemase (CONF:1129-30404).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1129-30441).

If the value of @negationInd is "false" this observation is required to contain at least one of the following entryRelationships.

1. SHOULD contain zero or more [0..\*] entryRelationship (CONF:1129-30392) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CONF:1129-30400).
   2. SHALL contain exactly one [1..1] [Carbapenemase Type Identified Observation](#E_Carbapenemase_Type_Identified_Observa) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01) (CONF:1129-30462).

Figure 137: Positive Test for Carbapenemase Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2" />

<!-- Positive Test for Carbapenemase Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.225"

extension="2014-12-01"/>

<id nullFlavor="NA"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"

codeSystemName="ActCode"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="CD" code="2048-7"

displayName="Isolate tested positive for carbapenemase"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

<entryRelationship typeCode="COMP">

<!-- Carbapenemase Type Identified Observation -->

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Type Identified Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.226"

extension="2014-12-01"/>

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Carbapenemase Type Identified Observation -->

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Result Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.2"/>

<!-- Carbapenemase Type Identified Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.226"

extension="2014-12-01"/>

...

</observation>

</entryRelationship>

</observation>

Post-Procedure Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.150 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 374: Post-Procedure Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details Section in a BSI Report](#S_Infection_Details_Section_in_a_BSI_Re) (optional)  [Infection Details Section in a UTI Report](#S_Infection_Details_Section_in_a_UTI_Re) (optional)  [Infection Details Section in a VAE Report](#S_Infection_Details_Section_in_a_VAE_Re) (optional) | [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) (optional) |

This clinical statement represents a post procedure. In the context in which it is used in the HAI IG, this observation records whether the reported infection occurred during a post-procedure period. If the infection was post-procedure, then a date of the procedure and a procedure code are required.

If the infection was post-procedure, set the value of @negationInd to false. If the infection was not post-procedure, set the value of @negationInd to true.

Table 375: Post-Procedure Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.150) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19715](#C_86-19715) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19716](#C_86-19716) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19717](#C_86-19717) |  |
| templateId | 1..1 | SHALL |  | [86-28265](#C_86-28265) |  |
| @root | 1..1 | SHALL |  | [86-28266](#C_86-28266) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19742](#C_86-19742) |  |
| @root | 1..1 | SHALL |  | [86-19743](#C_86-19743) | 2.16.840.1.113883.10.20.5.6.150 |
| id | 1..1 | SHALL |  | [86-19882](#C_86-19882) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22782](#C_86-22782) | NA |
| code | 1..1 | SHALL |  | [86-19719](#C_86-19719) |  |
| @code | 1..1 | SHALL |  | [86-19720](#C_86-19720) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28397](#C_86-28397) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19721](#C_86-19721) |  |
| @code | 1..1 | SHALL |  | [86-19722](#C_86-19722) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-19784](#C_86-19784) |  |
| @code | 1..1 | SHALL |  | [86-19785](#C_86-19785) | 3188-0 |
| @codeSystem | 1..1 | SHALL |  | [86-19786](#C_86-19786) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| entryRelationship | 0..1 | SHOULD |  | [86-19725](#C_86-19725) |  |
| @typeCode | 1..1 | SHALL |  | [86-19726](#C_86-19726) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| procedure | 1..1 | SHALL |  | [86-19727](#C_86-19727) | [Procedure Details Clinical Statement in an Infection-Type Report (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154](#E_Procedure_Details_Clinical_Stmt_IT) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19715).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19716).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-19717).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28265) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28266).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19742) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.150" (CONF:86-19743).
7. SHALL contain exactly one [1..1] id (CONF:86-19882).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22782).
8. SHALL contain exactly one [1..1] code (CONF:86-19719).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19720).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28397).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19721).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19722).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-19784).
    1. This value SHALL contain exactly one [1..1] @code="3188-0" Infection occurred post-procedure (CONF:86-19785).
    2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-19786).
11. SHOULD contain zero or one [0..1] entryRelationship (CONF:86-19725).
    1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-19726).
    2. The entryRelationship, if present, SHALL contain exactly one [1..1] [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154) (CONF:86-19727).
    3. If the value of @negationInd is false this entryRelationship SHALL be present (CONF:86-19728).

Figure 138: Post-Procedure Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Post-procedure Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.150"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3188-0"

displayName="Infection occurred post-procedure"/>

...

<entryRelationship typeCode="REFR">

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure template -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Procedure Details CS in an infection-type report template -->

<templateId root="2.16.840.1.113883.10.20.5.6.154" />

...

</procedure>

</entryRelationship>

</observation>

Primary C. Difficile Testing Method This Quarter

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01 (closed)]

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Table 376: Primary C. Difficile Testing Method This Quarter Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (POM) (V2)](#S_Summary_Data_Section_POM_V2) (optional) |  |

This template represents the primary testing method for C. difficile that is used most often for this quarter by the facility's laboratory or by the outside laboratory where the facility's testing is performed.

If the testing method is other than one specified in NHSNCdiffTestMethod value set, use value/@nullFlavor="OTH" and enter the testing method in value/originalText.

Table 377: Primary C. Difficile Testing Method This Quarter Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-30327](#C_1129-30327) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1129-30328](#C_1129-30328) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30534](#C_1129-30534) |  |
| @root | 1..1 | SHALL |  | [1129-30535](#C_1129-30535) | 2.16.840.1.113883.10.20.5.6.221 |
| @extension | 1..1 | SHALL |  | [1129-30536](#C_1129-30536) | 2014-12-01 |
| code | 1..1 | SHALL |  | [1129-30318](#C_1129-30318) |  |
| @code | 1..1 | SHALL |  | [1129-30323](#C_1129-30323) | 2029-7 |
| @codeSystem | 1..1 | SHALL |  | [1129-30324](#C_1129-30324) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [1129-30320](#C_1129-30320) |  |
| @code | 1..1 | SHALL |  | [1129-30326](#C_1129-30326) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1129-30329](#C_1129-30329) | urn:oid:2.16.840.1.114222.4.11.7242 (NHSNCdiffTestMethod) |
| @nullFlavor | 0..1 | MAY |  | [1129-30331](#C_1129-30331) | OTH |
| originalText | 0..1 | MAY |  | [1129-30332](#C_1129-30332) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-30327).
2. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-30328).
3. SHALL contain exactly one [1..1] templateId (CONF:1129-30534) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.221" (CONF:1129-30535).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30536).
4. SHALL contain exactly one [1..1] code (CONF:1129-30318).
   1. This code SHALL contain exactly one [1..1] @code="2029-7" C. difficile primary testing method used most often for this quarter (CONF:1129-30323).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:1129-30324).
5. SHALL contain exactly one [1..1] statusCode (CONF:1129-30320).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-30326).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHOULD be selected from ValueSet [NHSNCdiffTestMethod](#NHSNCdiffTestMethod) urn:oid:2.16.840.1.114222.4.11.7242 DYNAMIC (CONF:1129-30329).

If the testing method is other than one specified in NHSN, use nullFlavor="OTH" and enter testing method in originalText.

* 1. This value MAY contain zero or one [0..1] @nullFlavor="OTH" (CONF:1129-30331).

If nullFlavor="OTH" then the testing method is to be entered in originalText.

* 1. This value MAY contain zero or one [0..1] originalText (CONF:1129-30332).

Table 378: NHSNCdiffTestMethod

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNCdiffTestMethod urn:oid:2.16.840.1.114222.4.11.7242  (Clinical Focus: NHSN surveillance reporting: Testing details for C. difficile),(Data Element Scope: An observation value that represents the primary testing method for C. difficile that is used most often for this quarter by the facility's laboratory or by the outside laboratory where the facility's testing is performed.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 12/8/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7242/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2030-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Enzyme immunoassay (EIA) for toxin |
| 2031-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Cell cytotoxicity neutralization assay |
| 2032-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Nucleic acid amplification test (NAAT) |
| 2033-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Glutamate dehydrogenase (GDH) antigen plus enzyme immunoassay (EIA) for toxin |
| 2034-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Glutamate dehydrogenase (GDH) plus nucleic acid amplification test (NAAT) |
| 2035-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Glutamate dehydrogenase (GDH) plus enzyme immunoassay (EIA) for toxin, followed by nucleic acid amplification test (NAAT) for discrepant results |
| 2036-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Toxigenic culture |
| 2057-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Nucleic acid amplification test (NAAT) plus enzyme immunoassay (EIA), if NAAT positive (2-step algorithm) |

Figure 139: Primary C. Difficile Testing Method This Quarter Example

<observation classCode="OBS" moodCode="EVN">

<!-- Primary C. Difficile Testing Method This Quarter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.221"

extension="2014-12-01"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2029-7"

displayName="C. difficile primary testing method used most often for this

quarter"/>

<statusCode code="completed"/>

<value xsi:type="CD" codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2034-7"

displayName="GDHNAAT - GDH plus NAAT"/>

</observation>

Figure 140: Primary C. Difficile Testing Method This Quarter - Other Example

<observation classCode="OBS" moodCode="EVN">

<!-- Primary C. Difficile Testing Method This Quarter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.221"

extension="2014-12-01" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2029-7"

displayName="C. difficile primary testing method used most often for this quarter" />

<statusCode code="completed" />

<value xsi:type="CD" nullFlavor="OTH">

<originalText>

Testing method other than one specified in NHSN value set

</originalText>

</value>

</observation>

Prior Discharge Encounter (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01 (closed)]

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Table 379: Prior Discharge Encounter (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Encounters Section in a LIO Report (V2)](#S_Encounters_Section_in_a_LIO_Report_V2) (required) |  |

This template records the date of a prior discharge from the facility. It is used in a LIO Report to record a past discharge within the past four weeks. If the Prior Discharge Encounter is not applicable, use nullFlavor="NA".

Table 380: Prior Discharge Encounter (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [1129-30478](#C_1129-30478) | NA |
| @classCode | 1..1 | SHALL |  | [1129-21703](#C_1129-21703) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1129-21704](#C_1129-21704) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-30488](#C_1129-30488) |  |
| @root | 1..1 | SHALL |  | [1129-30489](#C_1129-30489) | 2.16.840.1.113883.10.20.22.4.49 |
| templateId | 1..1 | SHALL |  | [1129-21714](#C_1129-21714) |  |
| @root | 1..1 | SHALL |  | [1129-21715](#C_1129-21715) | 2.16.840.1.113883.10.20.5.6.151 |
| @extension | 1..1 | SHALL |  | [1129-30275](#C_1129-30275) | 2014-12-01 |
| id | 1..\* | SHALL |  | [1129-21705](#C_1129-21705) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-21706](#C_1129-21706) | NA |
| code | 1..1 | SHALL |  | [1129-21707](#C_1129-21707) |  |
| @code | 1..1 | SHALL |  | [1129-21708](#C_1129-21708) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = IMP |
| effectiveTime | 1..1 | SHALL |  | [1129-21709](#C_1129-21709) |  |
| @nullFlavor | 0..1 | MAY |  | [1129-30490](#C_1129-30490) | NA |
| high | 0..1 | SHOULD |  | [1129-30423](#C_1129-30423) |  |
| @value | 1..1 | SHALL |  | [1129-21711](#C_1129-21711) |  |

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).

Use nullFlavor="NA" where the prior discharge encounter is not applicable.

1. MAY contain zero or one [0..1] @nullFlavor="NA" (CONF:1129-30478).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-21703).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-21704).
4. SHALL contain exactly one [1..1] templateId (CONF:1129-30488) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:1129-30489).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-21714) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.151" (CONF:1129-21715).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30275).
6. SHALL contain at least one [1..\*] id (CONF:1129-21705).
   1. Such ids SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-21706).
7. SHALL contain exactly one [1..1] code (CONF:1129-21707).
   1. This code SHALL contain exactly one [1..1] @code="IMP" Inpatient encounter (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4 STATIC) (CONF:1129-21708).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-21709).

Use nullFlavor="NA" where the prior discharge encounter is not applicable.

* 1. This effectiveTime MAY contain zero or one [0..1] @nullFlavor="NA" (CONF:1129-30490).
  2. This effectiveTime SHOULD contain zero or one [0..1] high (CONF:1129-30423).

This date must be within the past four weeks.

* + 1. The high, if present, SHALL contain exactly one [1..1] @value (CONF:1129-21711).

Figure 141: Prior Discharge Encounter (V2) Example

<encounter classCode="ENC" moodCode="EVN">

<!-- C-CDA Encounter activity template -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- HAI Prior Discharge Encounter (V2) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.151"

extension="2014-12-01"/>

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.5.4"

code="IMP"

displayName="Inpatient encounter" />

<effectiveTime>

<high value="20081205"/>

</effectiveTime>

</encounter>

Figure 142: Prior Discharge Encounter (V2) - Not Applicable Example

<encounter classCode="ENC" moodCode="EVN" nullFlavor="NA">

<!-- CCD Encounter activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- HAI Prior Discharge Encounter (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.151"

extension="2014-12-01" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.5.4"

code="IMP"

displayName="Inpatient encounter" />

<effectiveTime nullFlavor="NA" />

</encounter>

Procedure Details Clinical Statement in a CLIP Report

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.155 (closed)]

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Table 381: Procedure Details Clinical Statement in a CLIP Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Section in a CLIP Report](#S_Procedure_Details_Section_in_a_CLIP_R) (required) | [PICC/IV Team](#E_PICCIV_Team) (required)  [Recorder Observation](#E_Recorder_Observation) (required)  [Reason for Procedure Observation](#E_Reason_for_Procedure_Observation) (required) |

This clinical statement records the detail required in a CLIP Report about the central-line insertion procedure.  
If the procedure resulted in a successful central-line insertion, set the value of statusCode/@code to "completed". If the procedure did not result in a successful central-line insertion, set the value of statusCode/@code to "aborted".  
The performer element records the identifier and role of the person who performed the procedure.  
The participant element identifies the catheter type.

Table 382: Procedure Details Clinical Statement in a CLIP Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.155) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21605](#C_86-21605) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-21606](#C_86-21606) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28267](#C_86-28267) |  |
| @root | 1..1 | SHALL |  | [86-28268](#C_86-28268) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-21637](#C_86-21637) |  |
| @root | 1..1 | SHALL |  | [86-21638](#C_86-21638) | 2.16.840.1.113883.10.20.5.6.155 |
| id | 1..1 | SHALL |  | [86-21639](#C_86-21639) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22784](#C_86-22784) | NA |
| code | 1..1 | SHALL |  | [86-21607](#C_86-21607) |  |
| @code | 1..1 | SHALL |  | [86-21608](#C_86-21608) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 233527006 |
| statusCode | 1..1 | SHALL |  | [86-21609](#C_86-21609) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 1..1 | SHALL |  | [86-21610](#C_86-21610) |  |
| targetSiteCode | 1..1 | SHALL |  | [86-21611](#C_86-21611) | urn:oid:2.16.840.1.114222.4.11.3180 (NHSNInsertionSiteCode) |
| performer | 1..1 | SHALL |  | [86-21613](#C_86-21613) |  |
| assignedEntity | 1..1 | SHALL |  | [86-21614](#C_86-21614) |  |
| id | 1..1 | SHALL |  | [86-21615](#C_86-21615) |  |
| code | 1..1 | SHALL |  | [86-21617](#C_86-21617) |  |
| participant | 1..1 | SHALL |  | [86-21619](#C_86-21619) |  |
| @typeCode | 1..1 | SHALL |  | [86-21620](#C_86-21620) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [86-21621](#C_86-21621) |  |
| @classCode | 1..1 | SHALL |  | [86-21622](#C_86-21622) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [86-21623](#C_86-21623) |  |
| code | 1..1 | SHALL |  | [86-21624](#C_86-21624) |  |
| entryRelationship | 1..1 | SHALL |  | [86-21626](#C_86-21626) |  |
| @typeCode | 1..1 | SHALL |  | [86-21627](#C_86-21627) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-21628](#C_86-21628) | [Recorder Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.159](#E_Recorder_Observation) |
| entryRelationship | 1..1 | SHALL |  | [86-21629](#C_86-21629) |  |
| @typeCode | 1..1 | SHALL |  | [86-21630](#C_86-21630) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [86-21631](#C_86-21631) | [Reason for Procedure Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.158](#E_Reason_for_Procedure_Observation) |
| entryRelationship | 1..1 | SHALL |  | [86-21632](#C_86-21632) |  |
| @typeCode | 1..1 | SHALL |  | [86-21633](#C_86-21633) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-21634](#C_86-21634) | [PICC/IV Team (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.148](#E_PICCIV_Team) |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21605).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21606).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28267) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28268).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21637) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.155" (CONF:86-21638).
6. SHALL contain exactly one [1..1] id (CONF:86-21639).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22784).
7. SHALL contain exactly one [1..1] code (CONF:86-21607).
   1. This code SHALL contain exactly one [1..1] @code="233527006" Central-line insertion (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-21608).
8. SHALL contain exactly one [1..1] statusCode, which SHALL be selected from ValueSet [ProcedureAct statusCode](#ProcedureAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.22 DYNAMIC (CONF:86-21609).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21610).
10. SHALL contain exactly one [1..1] targetSiteCode, which SHALL be selected from ValueSet [NHSNInsertionSiteCode](#NHSNInsertionSiteCode) urn:oid:2.16.840.1.114222.4.11.3180 DYNAMIC (CONF:86-21611).
11. SHALL contain exactly one [1..1] performer (CONF:86-21613).
    1. This performer SHALL contain exactly one [1..1] assignedEntity (CONF:86-21614).
       1. This assignedEntity SHALL contain exactly one [1..1] id (CONF:86-21615).
          1. If the performer ID is not known, the value of performer/assignedEntity/id/@nullFlavor SHALL be UNK (CONF:86-21616).
       2. This assignedEntity SHALL contain exactly one [1..1] code (CONF:86-21617).
          1. If the occupation is recorded as a code, the value of @code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.3181 NHSNRoleOfPerformerCode DYNAMIC. If the occupation is recorded as text, the value of @nullFlavor SHALL be OTH and the code element SHALL contain an originalText element recording the occupation of the performer (CONF:86-21618).
12. SHALL contain exactly one [1..1] participant (CONF:86-21619).
    1. This participant SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-21620).
    2. This participant SHALL contain exactly one [1..1] participantRole (CONF:86-21621).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:86-21622).
       2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:86-21623).
          1. This playingDevice SHALL contain exactly one [1..1] code (CONF:86-21624).
             1. To record the catheter type as a code, the value of @code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.3185 NHSNCatheterTypeCode DYNAMIC. Or, to record the catheter type as text, the value of @nullFlavor SHALL be OTH and an originalText element SHALL be present (CONF:86-21625).
13. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21626) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21627).
    2. SHALL contain exactly one [1..1] [Recorder Observation](#E_Recorder_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.159) (CONF:86-21628).
14. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21629) such that it
    1. SHALL contain exactly one [1..1] @typeCode="RSON" Has reason (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21630).
    2. SHALL contain exactly one [1..1] [Reason for Procedure Observation](#E_Reason_for_Procedure_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.158) (CONF:86-21631).
15. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21632) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21633).
    2. SHALL contain exactly one [1..1] [PICC/IV Team](#E_PICCIV_Team) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.148) (CONF:86-21634).

Table 383: ProcedureAct statusCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: ProcedureAct statusCode urn:oid:2.16.840.1.113883.11.20.9.22  (Clinical Focus: Status of a procedure activity),(Data Element Scope: ),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 4/24/2019 with a version of 20190103.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| aborted | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | aborted |
| active | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | active |
| cancelled | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | cancelled |
| completed | HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 | completed |

Table 384: NHSNInsertionSiteCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNInsertionSiteCode urn:oid:2.16.840.1.114222.4.11.3180  (Clinical Focus: Catheter insertion site for NHSN surveillance reporting of Central Line Insertion Practices (CLIP) adherence),(Data Element Scope: A code identifying the insertion target site.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3180/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 122774002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of vein of lower extremity (body structure) |
| 122775001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of vein of upper extremity (body structure) |
| 307054003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of scalp vein (body structure) |
| 408728001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of umbilical blood vessel (body structure) |
| 63190004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of jugular vein (body structure) |
| 83419000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Femoral vein structure (body structure) |
| 9454009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Structure of subclavian vein (body structure) |

Table 385: NHSNRoleOfPerformerCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNRoleOfPerformerCode urn:oid:2.16.840.1.114222.4.11.3181  (Clinical Focus: NHSN surveillance reporting: procedure details about central-line insertion practices (CLIP) adherence. Care team member who inserted the central line.),(Data Element Scope: A code describing the role of the performer in a procedure.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3181/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 163W00000X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Nursing Service Providers; Registered Nurse |
| 2212-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | PICC team |
| 363L00000X | Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 | Physician Assistants & Advanced Practice Nursing Providers; Nurse Practitioner |
| 398130009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Medical student (occupation) |
| 405277009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Resident physician (occupation) |
| 405279007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Attending physician (occupation) |
| 4100-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | IV team |
| 4101-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Physician assistant |
| 4102-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Medical staff not otherwise specified |
| 4103-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Fellow |
| ... | | | |

Table 386: NHSNCatheterTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNCatheterTypeCode urn:oid:2.16.840.1.114222.4.11.3185  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of catheter.),(Data Element Scope: A device type code that identifies the catheter type used in a central-line insertion procedure.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3185/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1116-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Umbilical |
| 1117-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Tunneled (dialysis) |
| 1118-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Tunneled (other than dialysis) |
| 1119-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Non-tunneled (dialysis) |
| 1120-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Non-tunneled (other than dialysis) |
| 3115-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Peripherally inserted central catheter (PICC) |

Figure 143: Procedure Details Clinical Statement in a CLIP Report Example

<procedure moodCode="EVN" classCode="PROC">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Procedure Details Clinical Statement in a CLIP Report templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.155" />

<id nullFlavor="NA" />

<code code="233527006"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Central-line Insertion" />

<statusCode code="completed" />

<effectiveTime value="20080805" />

<targetSiteCode code="83419000"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Femoral vein" />

<performer>

<assignedEntity>

<id nullFlavor="UNK" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="4101-2"

displayName="Physician assistant" />

</assignedEntity>

</performer>

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1119-7"

displayName="Non-tunneled central line, dialysis" />

</playingDevice>

</participantRole>

</participant>

<entryRelationship typeCode="COMP">

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- Recorder Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.159"/>

...

</observation>

</entryRelationship>

<entryRelationship typeCode="RSON">

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- C-CDA Indication templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- Reason for Procedure Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.158"/>

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- PICC/IV Team templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.148"/>

...

</observation>

</entryRelationship>

</procedure>

Procedure Details Clinical Statement in a Procedure Report (V2)

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.153.2 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 1 - US Realm

Table 387: Procedure Details Clinical Statement in a Procedure Report (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Section in a Procedure Report (V2)](#Procedure_Details_Section_in_a_Procedur) (required) | [Anesthesia Administration Clinical Statement](#E_Anesthesia_Administration_Clinical_St) (required)  [Closure Technique Procedure](#E_Closure_Technique_Procedure) (required)  [Spinal Fusion Level Observation](#E_Spinal_Fusion_Level_Observation) (optional)  [Revision Associated with Prior Infection Observation](#Revision_Associated_with_Prior_Infectio) (optional) |

This clinical statement records the detail required in a Procedure Report about a procedure.  
NHSN uses the procedure id, along with other data, to establish a link between a Procedure Report and an SSI Report; the value of the procedure id must be the same in both the report of a procedure and the report of a surgical-site infection resulting from that procedure. In this template, the priority code represents the main or primary procedure for the patient in the context of this report.

Table 388: Procedure Details Clinical Statement in a Procedure Report (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.153.2) | | | | | |
| @classCode | 1..1 | SHALL |  | [1101-21654](#C_1101-21654) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [1101-21655](#C_1101-21655) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1101-30303](#C_1101-30303) |  |
| @root | 1..1 | SHALL |  | [1101-30304](#C_1101-30304) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [1101-21695](#C_1101-21695) |  |
| @root | 1..1 | SHALL |  | [1101-30250](#C_1101-30250) | 2.16.840.1.113883.10.20.5.6.153.2 |
| id | 1..1 | SHALL |  | [1101-21656](#C_1101-21656) |  |
| code | 1..1 | SHALL |  | [1101-21657](#C_1101-21657) | urn:oid:2.16.840.1.113883.13.17 (NHSNProcedureCategoryCode) |
| translation | 0..1 | MAY |  | [1101-21698](#C_1101-21698) |  |
| statusCode | 1..1 | SHALL |  | [1101-21700](#C_1101-21700) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 1..1 | SHALL |  | [1101-21661](#C_1101-21661) |  |
| low | 1..1 | SHALL |  | [1101-21662](#C_1101-21662) |  |
| width | 1..1 | SHALL |  | [1101-21663](#C_1101-21663) |  |
| priorityCode | 0..1 | MAY |  | [1101-21664](#C_1101-21664) |  |
| @nullFlavor | 0..1 | MAY |  | [1101-21665](#C_1101-21665) | NA |
| @code | 0..1 | MAY |  | [1101-21666](#C_1101-21666) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 63161005 |
| methodCode | 0..1 | MAY |  | [1101-21667](#C_1101-21667) |  |
| @code | 1..1 | SHALL |  | [1101-21668](#C_1101-21668) |  |
| approachSiteCode | 0..1 | MAY |  | [1101-21671](#C_1101-21671) |  |
| @nullFlavor | 0..1 | MAY |  | [1101-21672](#C_1101-21672) | NI |
| @code | 0..1 | MAY |  | [1101-21673](#C_1101-21673) | urn:oid:2.16.840.1.113883.13.2 (NHSNSpinalFusionApproachCode) |
| performer | 0..1 | MAY |  | [1101-21675](#C_1101-21675) |  |
| @typeCode | 1..1 | SHALL |  | [1101-21676](#C_1101-21676) | PRF |
| assignedEntity | 1..1 | SHALL |  | [1101-21677](#C_1101-21677) |  |
| id | 1..\* | SHALL |  | [1101-21678](#C_1101-21678) |  |
| @root | 1..1 | SHALL |  | [1101-21679](#C_1101-21679) |  |
| @extension | 1..1 | SHALL |  | [1101-21681](#C_1101-21681) |  |
| entryRelationship | 1..1 | SHALL |  | [1101-21683](#C_1101-21683) |  |
| @typeCode | 1..1 | SHALL |  | [1101-21684](#C_1101-21684) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| substanceAdministration | 1..1 | SHALL |  | [1101-21685](#C_1101-21685) | [Anesthesia Administration Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112](#E_Anesthesia_Administration_Clinical_St) |
| entryRelationship | 0..1 | MAY |  | [1101-21686](#C_1101-21686) |  |
| @typeCode | 1..1 | SHALL |  | [1101-21687](#C_1101-21687) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1101-21688](#C_1101-21688) | [Spinal Fusion Level Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.166](#E_Spinal_Fusion_Level_Observation) |
| entryRelationship | 0..1 | SHALL |  | [1101-21690](#C_1101-21690) |  |
| @typeCode | 1..1 | SHALL |  | [1101-21691](#C_1101-21691) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| procedure | 1..1 | SHALL |  | [1101-21692](#C_1101-21692) | [Closure Technique Procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.117](#E_Closure_Technique_Procedure) |
| entryRelationship | 0..1 | MAY |  | [1101-30241](#C_1101-30241) |  |
| @typeCode | 1..1 | SHALL |  | [1101-30242](#C_1101-30242) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1101-30243](#C_1101-30243) | [Revision Associated with Prior Infection Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.204](#Revision_Associated_with_Prior_Infectio) |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1101-21654).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1101-21655).
4. SHALL contain exactly one [1..1] templateId (CONF:1101-30303) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:1101-30304).
5. SHALL contain exactly one [1..1] templateId (CONF:1101-21695) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.153.2" (CONF:1101-30250).
6. SHALL contain exactly one [1..1] id (CONF:1101-21656).
7. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNProcedureCategoryCode](#NHSNProcedureCategoryCode) urn:oid:2.16.840.1.113883.13.17 DYNAMIC (CONF:1101-21657).
   1. This code MAY contain zero or one [0..1] translation (CONF:1101-21698).
      1. This code/translation MAY be used for sending an ICD-10 or CPT code (CONF:1101-21699).
8. SHALL contain exactly one [1..1] statusCode, which SHALL be selected from ValueSet [ProcedureAct statusCode](#ProcedureAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.22 DYNAMIC (CONF:1101-21700).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:1101-21661).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1101-21662).
   2. This effectiveTime SHALL contain exactly one [1..1] width (CONF:1101-21663).
10. MAY contain zero or one [0..1] priorityCode (CONF:1101-21664).
    1. The priorityCode, if present, MAY contain zero or one [0..1] @nullFlavor="NA" (CONF:1101-21665).
    2. The priorityCode, if present, MAY contain zero or one [0..1] @code="63161005" Principal (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:1101-21666).
11. MAY contain zero or one [0..1] methodCode (CONF:1101-21667).
    1. The methodCode, if present, SHALL contain exactly one [1..1] @code (CONF:1101-21668).
    2. If the procedure category code represents a hip replacement, a methodCode element SHALL be present where the value of @code is selected from ValueSet 2.16.840.1.113883.13.3 NHSNHipReplacementCode DYNAMIC (CONF:1101-21669).
    3. If the procedure category code represents a knee replacement, a methodCode element SHALL be present where the value of @code is selected from ValueSet 2.16.840.1.113883.13.4 NHSNKneeReplacementCode DYNAMIC (CONF:1101-21670).
12. MAY contain zero or one [0..1] approachSiteCode (CONF:1101-21671).
    1. The approachSiteCode, if present, MAY contain zero or one [0..1] @nullFlavor="NI" (CONF:1101-21672).
    2. The approachSiteCode, if present, MAY contain zero or one [0..1] @code, which SHALL be selected from ValueSet [NHSNSpinalFusionApproachCode](#NHSNSpinalFusionApproachCode) urn:oid:2.16.840.1.113883.13.2 DYNAMIC (CONF:1101-21673).
    3. If the procedure is a fusion or refusion (code/@code is either 2137-8 or 2135-2), an approachSiteCode element SHALL be present. If the approach site is known, the value of @code SHALL be selected from ValueSet 2.16.840.1.113883.13.2 NHSNSpinalFusionApproachCode DYNAMIC. If the approach site is not specified, the value of code@nullFlavor SHALL be NI (CONF:1101-21674).
13. MAY contain zero or one [0..1] performer (CONF:1101-21675).
    1. The performer, if present, SHALL contain exactly one [1..1] @typeCode="PRF" (CONF:1101-21676).
    2. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:1101-21677).
       1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:1101-21678).
          1. Such ids SHALL contain exactly one [1..1] @root (CONF:1101-21679).
             1. This @root SHALL be the facility's identifier (CONF:1101-21680).
          2. Such ids SHALL contain exactly one [1..1] @extension (CONF:1101-21681).
             1. This @extension SHALL be the surgeon's identifier (CONF:1101-21682).
14. SHALL contain exactly one [1..1] entryRelationship (CONF:1101-21683) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1101-21684).
    2. SHALL contain exactly one [1..1] [Anesthesia Administration Clinical Statement](#E_Anesthesia_Administration_Clinical_St) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112) (CONF:1101-21685).
15. MAY contain zero or one [0..1] entryRelationship (CONF:1101-21686) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1101-21687).
    2. SHALL contain exactly one [1..1] [Spinal Fusion Level Observation](#E_Spinal_Fusion_Level_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.166) (CONF:1101-21688).
    3. If the procedure is a fusion or refusion, this entryRelationship SHALL be present (CONF:1101-21689).
16. SHALL contain zero or one [0..1] entryRelationship (CONF:1101-21690) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1101-21691).
    2. SHALL contain exactly one [1..1] [Closure Technique Procedure](#E_Closure_Technique_Procedure) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.117) (CONF:1101-21692).
17. MAY contain zero or one [0..1] entryRelationship (CONF:1101-30241) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1101-30242).
    2. SHALL contain exactly one [1..1] [Revision Associated with Prior Infection Observation](#Revision_Associated_with_Prior_Infectio) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.204) (CONF:1101-30243).
    3. If the procedure is a total revision or a partial revision of an HPRO or KPRO, this entryRelationship SHALL be present (CONF:1101-30251).

Table 389: NHSNProcedureCategoryCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNProcedureCategoryCode urn:oid:2.16.840.1.113883.13.17  (Clinical Focus: Operative procedure categories used for reporting events such as surgical site infections to NHSN.),(Data Element Scope: A code identifying the type of procedure.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.17/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2101-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Hip prosthesis |
| 2102-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Shunt for dialysis |
| 2103-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Not an NHSN operation |
| 2104-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Other operations |
| 2105-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Abdominal aortic aneurysm repair |
| 2106-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Herniorrhaphy |
| 2107-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Abdominal hysterectomy |
| 2108-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Appendix surgery |
| 2109-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Bile duct, liver or pancreatic surgery |
| 2110-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Breast surgery |
| ... | | | |

Table 390: NHSNHipReplacementCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNHipReplacementCode urn:oid:2.16.840.1.113883.13.3  (Clinical Focus: NHSN surveillance reporting: hip replacement procedures for surgical site infections),(Data Element Scope: A method code identifying the type of hip replacement.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.3/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1413-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Total: Total Primary |
| 1414-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Total: Total Revision |
| 1415-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Total: Partial Revision |
| 1416-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Hemi: Partial Primary |
| 1417-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Hemi: Total Revision |
| 1418-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Hemi: Partial Revision |
| 1419-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Resurfacing: Total Primary |
| 1420-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Resurfacing: Total Revision |
| 1421-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Resurfacing: Partial Primary |
| 1422-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | HPRO: Resurfacing: Partial Revision |

Table 391: NHSNKneeReplacementCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNKneeReplacementCode urn:oid:2.16.840.1.113883.13.4  (Clinical Focus: NHSN surveillance reporting: knee replacement procedures for surgical site infections),(Data Element Scope: A code identifying the type of knee replacement.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.4/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1406-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | KPRO: Total: Total Primary |
| 1407-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | KPRO: Total: Total Revision |
| 1408-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | KPRO: Total: Partial Revision |
| 1409-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | KPRO: Hemi: Partial Primary |
| 1411-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | KPRO: Hemi: Total Revision |
| 1412-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | KPRO: Hemi: Partial Revision |

Table 392: NHSNSpinalFusionApproachCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSpinalFusionApproachCode urn:oid:2.16.840.1.113883.13.2  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the spinal fusion approach.),(Data Element Scope: A coded identifying the spinal fusion procedure approach site.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.2/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 118438002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Transoral approach (qualifier value) |
| 1205-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Anterior and posterior |
| 255549009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Anterior (qualifier value) |
| 255551008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Posterior (qualifier value) |

Figure 144: Code Translation Example—Procedure Report

<code code="2105-5"

displayName="Abdominal aortic aneurysm repair"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN">

<translation code="34800"

codeSystem="2.16.840.1.113883.6.2"

displayName="ENDOVASCULAR REPAIR OF ABDOMINAL AORTIC ANEURYSM"

codeSystemName="ICD9CM"/>

</code>

Figure 145: Spinal Fusion Approach Example

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- Procedure Details Clinical Statement in a Procedure Report (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.153.2" />

<id root="807007ba-c8f0-4842-9c3c-4a4e4c570849" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2137-8"

displayName="Spinal Fusion" />

<statusCode code="completed" />

<!-- The procedure date -->

<effectiveTime>

<low value="20061223" />

<width value="3" unit="h" />

</effectiveTime>

<!-- MAY contain -->

<priorityCode code="63161005"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Principal"/>

<!-- Spinal fusion approach site -->

<approachSiteCode codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1205-4"

displayName="anterior posterior" />

<!-- Surgeon who performed the procedure -->

<performer typeCode="PRF">

<assignedEntity classCode="ASSIGNED">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1.1" extension="987654" />

</assignedEntity>

</performer>

<entryRelationship typeCode="COMP">

<!-- Anesthesia Administration Clinical Statement -->

<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">

<!-- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" />

<!-- HAI Anesthesia Administration Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.112" />

...

</substanceAdministration>

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Spinal Fusion Level Observation -->

<observation classCode="OBS" moodCode="EVN">

<!-- Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- HAI Spinal Fusion Level Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.166" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Closure Technique Procedure -->

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Closure Technique Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.117" />

...

</procedure>

</entryRelationship>

</procedure>

Figure 146: Hip Replacement methodCode Example

<procedure>

...

<methodCode codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1413-4"

displayName="Total: Total Primary Hip Replacement"/>

<procedure/>

Figure 147: Knee Replacement methodCode Example

<procedure>

...

<methodCode codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1406-8"

displayName="Total: Total Primary Knee Replacement"/>

</procedure>

Procedure Details Clinical Statement in an Infection-Type Report

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.154 (closed)]

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Table 393: Procedure Details Clinical Statement in an Infection-Type Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Post-Procedure Observation](#E_PostProcedure_Observation) (optional)  [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) (required) |  |

This clinical statement records the detail required in an infection-type report about a procedure.

Table 394: Procedure Details Clinical Statement in an Infection-Type Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.154) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21640](#C_86-21640) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-21641](#C_86-21641) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28269](#C_86-28269) |  |
| @root | 1..1 | SHALL |  | [86-28270](#C_86-28270) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-21651](#C_86-21651) |  |
| @root | 1..1 | SHALL |  | [86-21652](#C_86-21652) | 2.16.840.1.113883.10.20.5.6.154 |
| id | 1..1 | SHALL |  | [86-21642](#C_86-21642) |  |
| code | 1..1 | SHALL |  | [86-21643](#C_86-21643) | urn:oid:2.16.840.1.113883.13.17 (NHSNProcedureCategoryCode) |
| translation | 0..\* | MAY |  | [86-21645](#C_86-21645) |  |
| statusCode | 1..1 | SHALL |  | [86-21653](#C_86-21653) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 1..1 | SHALL |  | [86-21647](#C_86-21647) |  |
| low | 1..1 | SHALL |  | [86-21648](#C_86-21648) |  |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21640).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21641).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28269) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28270).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21651) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.154" (CONF:86-21652).
6. SHALL contain exactly one [1..1] id (CONF:86-21642).
7. SHALL contain exactly one [1..1] code (ValueSet: [NHSNProcedureCategoryCode](#NHSNProcedureCategoryCode) urn:oid:2.16.840.1.113883.13.17 DYNAMIC) (CONF:86-21643).
   1. This code MAY contain zero or more [0..\*] translation (CONF:86-21645).
      1. This code/translation MAY be used for sending an ICD-10 or CPT code (CONF:86-21646).
8. SHALL contain exactly one [1..1] statusCode (ValueSet: [ProcedureAct statusCode](#ProcedureAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.22 DYNAMIC) (CONF:86-21653).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21647).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-21648).

Figure 148: Code Translation Example—Infection-Type Report

<code code="2105-5"

displayName="Abdominal aortic aneurysm repair"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN">

<translation code="34800"

codeSystem="2.16.840.1.113883.6.2"

displayName="ENDOVASCULAR REPAIR OF ABDOMINAL AORTIC ANEURYSM"

codeSystemName="ICD9CM"/>

</code>

Figure 149: Procedure Details Clinical Statement in an Infection-Type Report

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure template -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Procedure Details CS in an infection-type report template -->

<templateId root="2.16.840.1.113883.10.20.5.6.154" />

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />

<code code="2108-9"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Appendix surgery" />

<statusCode code="completed" />

<effectiveTime>

<low value="20080805"/>

</effectiveTime>

</procedure>

Procedure Details in an OPC Denominator for Procedure

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 395: Procedure Details in an OPC Denominator for Procedure Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Section in an OPC Denominator for Procedure](#S_Procedure_Details_Section_in_an_OPC_D) (required) | [Anesthesia Administration Clinical Statement](#E_Anesthesia_Administration_Clinical_St) (required) |

This template represents details about a procedure in an OPC Denominator for Procedure.

NHSN uses the procedure id, along with other data, to establish a link between an OPC Denominator for Procedure and an OPC SSI Event; the value of the procedure id must be the same in both the report of a procedure and the report of a surgical-site infection resulting from that procedure.

Table 396: Procedure Details in an OPC Denominator for Procedure Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-30584](#C_4395-30584) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4395-30585](#C_4395-30585) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4395-30563](#C_4395-30563) |  |
| @root | 1..1 | SHALL |  | [4395-30586](#C_4395-30586) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [4395-30583](#C_4395-30583) |  |
| @root | 1..1 | SHALL |  | [4395-30609](#C_4395-30609) | 2.16.840.1.113883.10.20.5.6.259 |
| @extension | 1..1 | SHALL |  | [4395-30610](#C_4395-30610) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-30587](#C_4395-30587) |  |
| @root | 1..1 | SHALL |  | [4395-30950](#C_4395-30950) |  |
| @extension | 1..1 | SHALL |  | [4395-30951](#C_4395-30951) |  |
| code | 1..1 | SHALL |  | [4395-30564](#C_4395-30564) | urn:oid:2.16.840.1.113883.10.20.5.9.34 (NHSNOPCProcedureCategoryCode) |
| translation | 1..1 | SHALL |  | [4395-30565](#C_4395-30565) | urn:oid:2.16.840.1.113883.6.12 (CPT4) |
| statusCode | 1..1 | SHALL |  | [4395-30589](#C_4395-30589) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 1..1 | SHALL |  | [4395-30566](#C_4395-30566) |  |
| low | 1..1 | SHALL |  | [4395-30590](#C_4395-30590) |  |
| width | 1..1 | SHALL |  | [4395-30591](#C_4395-30591) |  |
| performer | 0..1 | MAY |  | [4395-30570](#C_4395-30570) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30600](#C_4395-30600) | PRF |
| assignedEntity | 1..1 | SHALL |  | [4395-30571](#C_4395-30571) |  |
| id | 1..\* | SHALL |  | [4395-30572](#C_4395-30572) |  |
| @root | 1..1 | SHALL |  | [4395-30573](#C_4395-30573) |  |
| @extension | 1..1 | SHALL |  | [4395-30574](#C_4395-30574) |  |
| entryRelationship | 1..1 | SHALL |  | [4395-30575](#C_4395-30575) |  |
| @typeCode | 1..1 | SHALL |  | [4395-30603](#C_4395-30603) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| substanceAdministration | 1..1 | SHALL |  | [4395-30576](#C_4395-30576) | [Anesthesia Administration Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112](#E_Anesthesia_Administration_Clinical_St) |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-30584).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-30585).
4. SHALL contain exactly one [1..1] templateId (CONF:4395-30563) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:4395-30586).
5. SHALL contain exactly one [1..1] templateId (CONF:4395-30583) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.259" (CONF:4395-30609).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30610).
6. SHALL contain exactly one [1..1] id (CONF:4395-30587).  
   Note: Procedure id
   1. This id SHALL contain exactly one [1..1] @root (CONF:4395-30950).
   2. This id SHALL contain exactly one [1..1] @extension (CONF:4395-30951).
7. SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNOPCProcedureCategoryCode](#NHSNOPCProcedureCategoryCode) urn:oid:2.16.840.1.113883.10.20.5.9.34 DYNAMIC (CONF:4395-30564).
   1. This code SHALL contain exactly one [1..1] translation, which SHALL be selected from CodeSystem CPT4 (urn:oid:2.16.840.1.113883.6.12) (CONF:4395-30565).  
      Note: CPT Procedure Code
8. SHALL contain exactly one [1..1] statusCode, which SHALL be selected from ValueSet [ProcedureAct statusCode](#ProcedureAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.22 DYNAMIC (CONF:4395-30589).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30566).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30590).
   2. This effectiveTime SHALL contain exactly one [1..1] width (CONF:4395-30591).
10. MAY contain zero or one [0..1] performer (CONF:4395-30570).
    1. The performer, if present, SHALL contain exactly one [1..1] @typeCode="PRF" (CONF:4395-30600).
    2. The performer, if present, SHALL contain exactly one [1..1] assignedEntity (CONF:4395-30571).
       1. This assignedEntity SHALL contain at least one [1..\*] id (CONF:4395-30572).
          1. Such ids SHALL contain exactly one [1..1] @root (CONF:4395-30573).
             1. This @root SHALL be the facility's identifier - this code is assigned by NHSN (CONF:4395-30601).
          2. Such ids SHALL contain exactly one [1..1] @extension (CONF:4395-30574).
             1. This @extension SHALL be the surgeon's identifier - this code is assigned by the facility (CONF:4395-30602).
11. SHALL contain exactly one [1..1] entryRelationship (CONF:4395-30575) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4395-30603).
    2. SHALL contain exactly one [1..1] [Anesthesia Administration Clinical Statement](#E_Anesthesia_Administration_Clinical_St) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.112) (CONF:4395-30576).

Table 397: NHSNOPCProcedureCategoryCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNOPCProcedureCategoryCode urn:oid:2.16.840.1.113883.10.20.5.9.34  (Clinical Focus: NHSN surveillance reporting: OPC (Outpatient Procedure Component) procedure categories used for reporting outpatient surgical site infection events to NHSN),(Data Element Scope: A procedure code for OPC procedure categories.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.34/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2101-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Hip prosthesis |
| 2102-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Shunt for dialysis |
| 2106-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Herniorrhaphy |
| 2107-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Abdominal hysterectomy |
| 2108-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Appendix surgery |
| 2109-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Bile duct, liver or pancreatic surgery |
| 2110-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Breast surgery |
| 2114-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Carotid endarterectomy |
| 2115-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Cesarean section |
| 2116-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Colon surgery |
| ... | | | |

Figure 150: Procedure Details in an OPC Denominator for Procedure Example

<procedure classCode="PROC" moodCode="EVN">

<!-- [C-CDA R1.1] Procedure Activity Procedure -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- Procedure Details in an OPC Denominator for Procedure -->

<templateId root="2.16.840.1.113883.10.20.5.6.259" extension="2019-04-01" />

<!-- NHSN uses the procedure id, along with other data, to establish a link between

an OPC Denominator for Procedure and an OPC SSI Event; the value of the

procedure id must be the same in both the report of a procedure and the report

of a surgical-site infection resulting from that procedure. -->

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2108-9"

displayName="Appendix surgery">

<translation code="44970"

displayName="Laparoscopic Procedures on the Appendix"

codeSystem="2.16.840.1.113883.6.12"

codeSystemName="CPT4" />

</code>

<statusCode code="completed" />

<!-- The procedure date and duration -->

<effectiveTime>

<low value="20181223" />

<width value="90" unit="min" />

</effectiveTime>

<!-- Surgeon who performed the procedure -->

<performer typeCode="PRF">

<assignedEntity classCode="ASSIGNED">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1.1" extension="987654" />

</assignedEntity>

</performer>

<!-- general anesthesia? not negated = was used -->

<entryRelationship typeCode="COMP">

<!-- [HAI] Anesthesia Administration Clinical Statement -->

<substanceAdministration classCode="SBADM" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" />

<!-- [HAI R1] Anesthesia Administration Clinical Statement -->

<templateId root="2.16.840.1.113883.10.20.5.6.112" />

...

</substanceAdministration>

</entryRelationship>

</procedure>

Procedure Details in an OPC SSI Event

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01 (closed)]

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Table 398: Procedure Details in an OPC SSI Event Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details Section in an OPC SSI Report](#S_Infection_Details_Section_in_an_OPC_S) (required) |  |

This clinical statement records the detail required in an OPC SSI Event report about a procedure.

NHSN uses the procedure id, along with other data, to establish a link between an OPC Denominator for Procedure and an OPC SSI Event; the value of the procedure id must be the same in both the report of a procedure and the report of a surgical-site infection resulting from that procedure.

Table 399: Procedure Details in an OPC SSI Event Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-30926](#C_4395-30926) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4395-30927](#C_4395-30927) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4395-30924](#C_4395-30924) |  |
| @root | 1..1 | SHALL |  | [4395-30931](#C_4395-30931) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [4395-30925](#C_4395-30925) |  |
| @root | 1..1 | SHALL |  | [4395-30933](#C_4395-30933) | 2.16.840.1.113883.10.20.5.6.265 |
| @extension | 1..1 | SHALL |  | [4395-30934](#C_4395-30934) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-30928](#C_4395-30928) |  |
| @root | 1..1 | SHALL |  | [4395-30952](#C_4395-30952) |  |
| @extension | 1..1 | SHALL |  | [4395-30953](#C_4395-30953) |  |
| code | 1..1 | SHALL |  | [4395-30921](#C_4395-30921) | urn:oid:2.16.840.1.113883.10.20.5.9.34 (NHSNOPCProcedureCategoryCode) |
| translation | 1..1 | SHALL |  | [4395-30935](#C_4395-30935) | urn:oid:2.16.840.1.113883.6.12 (CPT4) |
| statusCode | 1..1 | SHALL |  | [4395-30932](#C_4395-30932) | urn:oid:2.16.840.1.113883.11.20.9.22 (ProcedureAct statusCode) |
| effectiveTime | 1..1 | SHALL |  | [4395-30923](#C_4395-30923) |  |
| low | 1..1 | SHALL |  | [4395-30930](#C_4395-30930) |  |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-30926).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-30927).
4. SHALL contain exactly one [1..1] templateId (CONF:4395-30924) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:4395-30931).
5. SHALL contain exactly one [1..1] templateId (CONF:4395-30925) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.265" (CONF:4395-30933).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30934).
6. SHALL contain exactly one [1..1] id (CONF:4395-30928).  
   Note: Procedure id
   1. This id SHALL contain exactly one [1..1] @root (CONF:4395-30952).
   2. This id SHALL contain exactly one [1..1] @extension (CONF:4395-30953).
7. SHALL contain exactly one [1..1] code (ValueSet: [NHSNOPCProcedureCategoryCode](#NHSNOPCProcedureCategoryCode) urn:oid:2.16.840.1.113883.10.20.5.9.34 DYNAMIC) (CONF:4395-30921).
   1. This code SHALL contain exactly one [1..1] translation, which SHALL be selected from CodeSystem CPT4 (urn:oid:2.16.840.1.113883.6.12) (CONF:4395-30935).  
      Note: Primary CPT Code
8. SHALL contain exactly one [1..1] statusCode (ValueSet: [ProcedureAct statusCode](#ProcedureAct_statusCode) urn:oid:2.16.840.1.113883.11.20.9.22 DYNAMIC) (CONF:4395-30932).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30923).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30930).

Figure 151: Procedure Details in an OPC SSI Event

<procedure classCode="PROC" moodCode="EVN">

<!-- [C-CDA R1.1] Procedure Activity Procedure -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- [HAI R3D4] Procedure Details in an OPC SSI Event -->

<templateId root="2.16.840.1.113883.10.20.5.6.265" extension="2019-04-01" />

<!-- NHSN uses the procedure id, along with other data, to establish a link between

an OPC Denominator for Procedure and an OPC SSI Event; the value of the

procedure id must be the same in both the report of a procedure and the report

of a surgical-site infection resulting from that procedure. -->

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.5" extension="21987654321" />

<code code="2108-9"

displayName="Appendix surgery"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN">

<translation code="44970"

displayName="Laparoscopic Procedures on the Appendix"

codeSystem="2.16.840.1.113883.6.12"

codeSystemName="CPT4" />

</code>

<statusCode code="completed" />

<effectiveTime>

<low value="20180805" />

</effectiveTime>

</procedure>

Procedure Risk Factors Clinical Statement in a Procedure Report

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.156 (closed)]

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Table 400: Procedure Risk Factors Clinical Statement in a Procedure Report Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (required)  [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) (required) | [Wound Class Observation](#E_Wound_Class_Observation) (required)  [Endoscope Used Clinical Statement](#E_Endoscope_Used_Clinical_Statement) (required) |

This clinical statement records the detail required in a Procedure Report about the circumstances in which a procedure was performed.

The value of the id element must be globally unique and in general need not be an identifier used outside the document. Its function is to identify this procedure as being the same as the one documented in the Details Section of the same report.

Table 401: Procedure Risk Factors Clinical Statement in a Procedure Report Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.156) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21319](#C_86-21319) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-21320](#C_86-21320) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-21990](#C_86-21990) |  |
| @root | 1..1 | SHALL |  | [86-21991](#C_86-21991) | 2.16.840.1.113883.10.20.5.6.156 |
| id | 1..1 | SHALL |  | [86-21321](#C_86-21321) |  |
| methodCode | 0..1 | MAY |  | [86-28412](#C_86-28412) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 373110003 |
| entryRelationship | 1..1 | SHALL |  | [86-21323](#C_86-21323) |  |
| @typeCode | 1..1 | SHALL |  | [86-21324](#C_86-21324) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-21325](#C_86-21325) | [Wound Class Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.174](#E_Wound_Class_Observation) |
| entryRelationship | 1..1 | SHALL |  | [86-21327](#C_86-21327) |  |
| @typeCode | 1..1 | SHALL |  | [86-21328](#C_86-21328) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| procedure | 1..1 | SHALL |  | [86-21329](#C_86-21329) | [Endoscope Used Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.128](#E_Endoscope_Used_Clinical_Statement) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21319).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21320).
3. SHALL contain exactly one [1..1] templateId (CONF:86-21990) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.156" (CONF:86-21991).
4. SHALL contain exactly one [1..1] id (CONF:86-21321).
   1. The value of the id element SHALL be the same as the value of the corresponding procedure/id element in the Details Section of the report (CONF:86-21322).

If the procedure was an emergency, the procedure element SHALL contain a methodCode element with the following value:

1. MAY contain zero or one [0..1] methodCode="373110003" Emergency procedure (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:86-28412).
2. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21323) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21324).
   2. SHALL contain exactly one [1..1] [Wound Class Observation](#E_Wound_Class_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.174) (CONF:86-21325).
3. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21327) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21328).
   2. SHALL contain exactly one [1..1] [Endoscope Used Clinical Statement](#E_Endoscope_Used_Clinical_Statement) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.128) (CONF:86-21329).

Figure 152: Procedure Risk Factors Clinical Statement in a Procedure Report

<procedure classCode="PROC" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.156"/>

<id root="2.16.840.1.113883.3.117.1.1.5.2.1.1.4" extension="92"/>

<!-- Emergency procedure-->

<methodCode codeSystem="2.16.840.1.113883.6.96"

code="373110003" displayName="Emergency procedure"/>

<!-- Wound Class Observation -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.174"/>

...

</entryRelationship>

<!-- Endoscope (not negated = was used) -->

<entryRelationship typeCode="COMP">

<!-- Endoscope Used Clinical Statement -->

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<templateId root="2.16.840.1.113883.10.20.5.6.128"/>

...

</procedure>

</entryRelationship>

</procedure>

Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

Table 402: Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required) |  |

This observation records whether a matching organism is identified both in blood and from a site-specific specimen, both collected within the infection window period, and pus is present at the vascular site from which the specimen was collected.

If there was pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to false. If there was not pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to true.

Table 403: Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3357-30689](#C_3357-30689) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3357-30690](#C_3357-30690) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3357-30691](#C_3357-30691) |  |
| templateId | 1..1 | SHALL |  | [3357-30674](#C_3357-30674) |  |
| @root | 1..1 | SHALL |  | [3357-30680](#C_3357-30680) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [3357-30679](#C_3357-30679) |  |
| @root | 1..1 | SHALL |  | [3357-30687](#C_3357-30687) | 2.16.840.1.113883.10.20.5.6.253 |
| @extension | 1..1 | SHALL |  | [3357-30688](#C_3357-30688) | 2018-04-01 |
| id | 1..1 | SHALL |  | [3357-30675](#C_3357-30675) |  |
| @nullFlavor | 1..1 | SHALL |  | [3357-30681](#C_3357-30681) | NA |
| code | 1..1 | SHALL |  | [3357-30676](#C_3357-30676) |  |
| @code | 1..1 | SHALL |  | [3357-30682](#C_3357-30682) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [3357-30683](#C_3357-30683) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [3357-30677](#C_3357-30677) |  |
| @code | 1..1 | SHALL |  | [3357-30684](#C_3357-30684) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [3357-30678](#C_3357-30678) |  |
| @code | 1..1 | SHALL | CS | [3357-30685](#C_3357-30685) | 3059-3 |
| @codeSystem | 1..1 | SHALL |  | [3357-30686](#C_3357-30686) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| participant | 0..1 | MAY |  | [3357-30695](#C_3357-30695) |  |
| @typeCode | 1..1 | SHALL |  | [3357-30698](#C_3357-30698) | DEV |
| participantRole | 1..1 | SHALL |  | [3357-30696](#C_3357-30696) |  |
| @classCode | 1..1 | SHALL |  | [3357-30871](#C_3357-30871) | MANU |
| playingDevice | 1..1 | SHALL |  | [3357-30697](#C_3357-30697) |  |
| code | 1..1 | SHALL |  | [3357-30700](#C_3357-30700) | urn:oid:2.16.840.1.113883.10.20.5.9.24 (NHSNVascularSpecimenCollectionSite) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3357-30689).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3357-30690).

If there was pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to false. If there was not pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s), set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3357-30691).
2. SHALL contain exactly one [1..1] templateId (CONF:3357-30674) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:3357-30680).
3. SHALL contain exactly one [1..1] templateId (CONF:3357-30679) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.253" (CONF:3357-30687).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-30688).
4. SHALL contain exactly one [1..1] id (CONF:3357-30675).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:3357-30681).
5. SHALL contain exactly one [1..1] code (CONF:3357-30676).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:3357-30682).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:3357-30683).
6. SHALL contain exactly one [1..1] statusCode (CONF:3357-30677).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3357-30684).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3357-30678).
   1. This value SHALL contain exactly one [1..1] @code="3059-3" Pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s) (CONF:3357-30685).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:3357-30686).

If the value of @negationInd is 'false', this observation SHALL contain exactly one [[]1..1] participant element representing the vascular specimen collection site where pus was present.

1. MAY contain zero or one [0..1] participant (CONF:3357-30695).
   1. The participant, if present, SHALL contain exactly one [1..1] @typeCode="DEV" Device (CONF:3357-30698).
   2. The participant, if present, SHALL contain exactly one [1..1] participantRole (CONF:3357-30696).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" Manufactured device (CONF:3357-30871).
      2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:3357-30697).
         1. This playingDevice SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNVascularSpecimenCollectionSite](#NHSNVascularSpecimenCollectionSite) urn:oid:2.16.840.1.113883.10.20.5.9.24 DYNAMIC (CONF:3357-30700).

Table 404: NHSNVascularSpecimenCollectionSite

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNVascularSpecimenCollectionSite urn:oid:2.16.840.1.113883.10.20.5.9.24  (Clinical Focus: NHSN surveillance reporting: Site of vascular specimen collection.),(Data Element Scope: A code identifying the site of vascular specimen collection.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.24/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 303727009 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Arterial catheter (physical object) |
| 3060-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Peripheral intravenous or midline catheter |
| 3061-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Atrial lines (right and left) |
| 3062-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Hemodialysis reliable outflow (HERO) catheter |
| 3063-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Intra-aortic balloon pump (IABP) device |
| 3064-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Non-accessed central line (not accessed nor inserted during the hospitalization) |
| 439218000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Surgically constructed arteriovenous graft (finding) |
| 439784005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Surgically constructed arteriovenous fistula (finding) |

Figure 153: Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [C-CDA R1.1] Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- [HAI R3D3] Pus Present in Specimen Site and Matching Organism in Blood and Specimen -->

<templateId root="2.16.840.1.113883.10.20.5.6.253" extension="2018-04-01" />

<id nullFlavor="NA" />

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed" />

<value xsi:type="CD"

code="3059-3"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Pus present at vascular specimen collection site and matching organism identified in blood and from site specific specimen(s)" />

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code="3060-1"

displayName="Peripheral IV or midline catheter"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

</playingDevice>

</participantRole>

</participant>

</observation>

Pus, Redness, or Increased Swelling Observation (V2)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01 (closed)]

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Table 405: Pus, Redness, or Increased Swelling Observation (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Indicator Organizer (V5)](#E_Infection_Indicator_Organizer_V5) (required) |  |

This observation records whether pus, redness, or increased swelling was observed. It is used in an Evidence of Infection (Dialysis) Report to record whether this was observed at a vascular access site.

If the infection indicator was present, set the value of @negationInd to false and record the event date in effectiveTime/low/@value. If the infection indicator was not present, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'.

Table 406: Pus, Redness, or Increased Swelling Observation (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-19900](#C_4395-19900) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4395-19901](#C_4395-19901) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [4395-19902](#C_4395-19902) |  |
| templateId | 1..1 | SHALL |  | [4395-28271](#C_4395-28271) |  |
| @root | 1..1 | SHALL |  | [4395-28272](#C_4395-28272) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [4395-19905](#C_4395-19905) |  |
| @root | 1..1 | SHALL |  | [4395-19906](#C_4395-19906) | 2.16.840.1.113883.10.20.5.6.157 |
| @extension | 1..1 | SHALL |  | [4395-30682](#C_4395-30682) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-19907](#C_4395-19907) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-22788](#C_4395-22788) | NA |
| code | 1..1 | SHALL |  | [4395-19908](#C_4395-19908) |  |
| @code | 1..1 | SHALL |  | [4395-19909](#C_4395-19909) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [4395-28396](#C_4395-28396) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [4395-19910](#C_4395-19910) |  |
| @code | 1..1 | SHALL |  | [4395-19911](#C_4395-19911) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [4395-30680](#C_4395-30680) |  |
| low | 1..1 | SHALL |  | [4395-30681](#C_4395-30681) |  |
| @nullFlavor | 0..1 | MAY |  | [4395-30683](#C_4395-30683) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| @value | 0..1 | MAY |  | [4395-30684](#C_4395-30684) |  |
| value | 1..1 | SHALL | CD | [4395-19912](#C_4395-19912) |  |
| @code | 1..1 | SHALL |  | [4395-19913](#C_4395-19913) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2305-1 |
| participant | 0..\* | MAY |  | [4395-20937](#C_4395-20937) |  |
| @typeCode | 1..1 | SHALL |  | [4395-19915](#C_4395-19915) | DEV |
| participantRole | 1..1 | SHALL |  | [4395-19916](#C_4395-19916) |  |
| @classCode | 1..1 | SHALL |  | [4395-19921](#C_4395-19921) | MANU |
| playingDevice | 1..1 | SHALL |  | [4395-19917](#C_4395-19917) |  |
| code | 1..1 | SHALL |  | [4395-19918](#C_4395-19918) |  |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-19900).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-19901).

If the infection indicator was present, set the value of @negationInd to false. If the infection indicator was not present, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:4395-19902).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-28271) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-28272).
3. SHALL contain exactly one [1..1] templateId (CONF:4395-19905) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.157" (CONF:4395-19906).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30682).
4. SHALL contain exactly one [1..1] id (CONF:4395-19907).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-22788).
5. SHALL contain exactly one [1..1] code (CONF:4395-19908).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:4395-19909).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:4395-28396).
6. SHALL contain exactly one [1..1] statusCode (CONF:4395-19910).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4395-19911).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4395-30680).

If the infection indicator was present, record the event date in effectiveTime/low/@value. If the infection indicator was not present, set effectiveTime/low/@nullFlavor='NA'.

* 1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:4395-30681).
     1. This low MAY contain zero or one [0..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30683).
     2. This low MAY contain zero or one [0..1] @value (CONF:4395-30684).

1. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4395-19912).
   1. This value SHALL contain exactly one [1..1] @code="2305-1" Pus, redness, or increased swelling (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:4395-19913).
2. MAY contain zero or more [0..\*] participant (CONF:4395-20937).

In an Evidence of Infection (Dialysis) Report, when this infection indicator is present, the following participant element is required by NHSN protocol to record the vascular access site at which the infection indicator was observed.

1. If the value of @negationInd is 'false', this observation SHALL contain one or more [1..\*] participant elements representing the access site which displayed this infection indicator (CONF:4395-19914).
   1. SHALL contain exactly one [1..1] @typeCode="DEV" Device (CONF:4395-19915).
   2. SHALL contain exactly one [1..1] participantRole (CONF:4395-19916).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" (CONF:4395-19921).
      2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:4395-19917).
         1. This playingDevice SHALL contain exactly one [1..1] code (CONF:4395-19918).
            1. To record a vascular access site as a code, the value of @code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.6042 NHSNVascularAccessSiteCode DYNAMIC (CONF:4395-19919).
            2. To represent a site of vascular access that is not listed in the NHSNVascularAccessSiteCode value set, set the value of @nullFlavor to OTH (other) (CONF:4395-19920).

Table 407: NHSNVascularAccessSiteCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNVascularAccessSiteCode urn:oid:2.16.840.1.114222.4.11.6042  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the vascular access site.),(Data Element Scope: A code describing the vascular access site.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6042/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2321-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Site of non-tunneled central line, dialysis |
| 2322-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Site of tunneled central line, dialysis |
| 2323-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Vascular site fistula |
| 2324-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Vascular site graft |

Figure 154: Pus, Redness, or Increased Swelling Observation (V2) Example

<!-- If the infection indicator was present, set the value of @negationInd to false

and record the event date in effectiveTime/low/@value.

If the infection indicator was not present, set the value of

@negationInd to true and set effectiveTime/low/@nullFlavor='NA'. --><observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Pus, Redness, or Increased Swelling Observation (V2) templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.157" extension="2019-04-01" />

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<effectiveTime xsi:type="IVL\_TS">

<low value="20180405" />

</effectiveTime>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2305-1"

displayName="Pus, redness, or increased swelling"/>

<!-- If this infection indicator was observed, at which

vascular access site(s)? -->

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code="2321-8"

codeSystem="2.16.840.1.113883.6.277"

displayName="Vascular site fistula"/>

</playingDevice>

</participantRole>

</participant>

</observation>

Reason for Procedure Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.158 (closed)]

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Table 408: Reason for Procedure Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Clinical Statement in a CLIP Report](#E_Procedure_Details_CLIP) (required) | [Guidewire Used Clinical Statement](#E_Guidewire_Used_Clinical_Statement) (optional) |

This observation records the reason a procedure was performed. It is used in the CLIP Report to record the reason a central-line insertion procedure was performed.

Table 409: Reason for Procedure Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.158) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21589](#C_86-21589) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21590](#C_86-21590) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21591](#C_86-21591) | false |
| templateId | 1..1 | SHALL |  | [86-28273](#C_86-28273) |  |
| @root | 1..1 | SHALL |  | [86-28274](#C_86-28274) | 2.16.840.1.113883.10.20.22.4.19 |
| templateId | 1..1 | SHALL |  | [86-21593](#C_86-21593) |  |
| @root | 1..1 | SHALL |  | [86-21603](#C_86-21603) | 2.16.840.1.113883.10.20.5.6.158 |
| id | 1..1 | SHALL |  | [86-21594](#C_86-21594) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22789](#C_86-22789) | NA |
| code | 1..1 | SHALL |  | [86-21595](#C_86-21595) |  |
| @code | 1..1 | SHALL |  | [86-21596](#C_86-21596) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28386](#C_86-28386) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21597](#C_86-21597) |  |
| @code | 1..1 | SHALL |  | [86-21598](#C_86-21598) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [86-21599](#C_86-21599) |  |
| entryRelationship | 0..1 | MAY |  | [86-23286](#C_86-23286) |  |
| @typeCode | 1..1 | SHALL |  | [86-23287](#C_86-23287) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| @inversionInd | 1..1 | SHALL |  | [86-23288](#C_86-23288) | true |
| procedure | 1..1 | SHALL |  | [86-23289](#C_86-23289) | [Guidewire Used Clinical Statement (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.129](#E_Guidewire_Used_Clinical_Statement) |

1. Conforms to Indication template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.19).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21589).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21590).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-21591).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28273) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.19" (CONF:86-28274).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21593) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.158" (CONF:86-21603).
7. SHALL contain exactly one [1..1] id (CONF:86-21594).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22789).
8. SHALL contain exactly one [1..1] code (CONF:86-21595).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21596).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28386).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21597).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21598).
10. SHALL contain exactly one [1..1] value (CONF:86-21599).
    1. In a CLIP Report, to record the reason as a code, the value of @xsi:type SHALL be CD and the value of @code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.3182 NHSNReasonForInsertionCode DYNAMIC. Or, to record the reason as text, the value of @xsi:type SHALL be ST and a text value SHALL be present (CONF:86-21600).
11. MAY contain zero or one [0..1] entryRelationship (CONF:86-23286).
    1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-23287).
    2. The entryRelationship, if present, SHALL contain exactly one [1..1] @inversionInd="true" (CONF:86-23288).
    3. The entryRelationship, if present, SHALL contain exactly one [1..1] [Guidewire Used Clinical Statement](#E_Guidewire_Used_Clinical_Statement) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.129) (CONF:86-23289).
    4. In a CLIP Report, if the coded reason is [To replace] An existing central line where infection was suspected (5107-8), an entryRelationship element SHALL be present containing Guidewire Used Clinical Statement (CONF:86-23290).

Table 410: NHSNReasonForInsertionCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReasonForInsertionCode urn:oid:2.16.840.1.114222.4.11.3182  (Clinical Focus: NHSN surveillance reporting: reasons to insert a catheter for Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A coded observation value describing the reason for insertion of the central line.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3182/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 5105-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | To address a new indication for a central line |
| 5106-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | To replace an existing, malfunctioning central line |
| 5107-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | To replace an existing central line where infection was suspected |

Figure 155: Reason for Procedure Observation Example

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- C-CDA Indication templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- HAI Reason for Procedure Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.158"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD" codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="5106-0"

displayName="[To replace] An existing, malfunctioning central line"/>

</observation>

...

<!-- Or, if the reason is [To replace] An existing central line where infection

was suspected:

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Indication templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.19"/>

<!-- HAI Reason for Procedure Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.158"/>

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION" />

<statusCode code="completed"/>

<value xsi:type="CD" code="5107-8"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="[To replace] An existing central line where infection

was suspected."/>

<entryRelationship typeCode="RSON" inversionInd="true">

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Guidewire Used Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.129" />

...

</procedure>

</entryRelationship>

</observation>

-->

Recorder Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.159 (closed)]

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Table 411: Recorder Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Clinical Statement in a CLIP Report](#E_Procedure_Details_CLIP) (required) |  |

This observation records whether the person who recorded the sequence of steps in a practice was also the performer of those steps. It is used in the Central-Line Insertion Practice Report.

If the recorder was the performer, set the value of @negationInd to false. If the recorder was not the performer (i.e., was an observer), set the value of @negationInd to true.

Table 412: Recorder Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.159) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21342](#C_86-21342) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21343](#C_86-21343) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21344](#C_86-21344) |  |
| templateId | 1..1 | SHALL |  | [86-21987](#C_86-21987) |  |
| @root | 1..1 | SHALL |  | [86-21988](#C_86-21988) | 2.16.840.1.113883.10.20.5.6.159 |
| id | 1..1 | SHALL |  | [86-21989](#C_86-21989) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22790](#C_86-22790) | NA |
| code | 1..1 | SHALL |  | [86-21345](#C_86-21345) |  |
| @code | 1..1 | SHALL |  | [86-21346](#C_86-21346) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28387](#C_86-28387) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21347](#C_86-21347) |  |
| @code | 1..1 | SHALL |  | [86-21348](#C_86-21348) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21349](#C_86-21349) |  |
| @code | 1..1 | SHALL |  | [86-21350](#C_86-21350) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 3104-7 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21342).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21343).
3. SHALL contain exactly one [1..1] @negationInd (CONF:86-21344).
4. SHALL contain exactly one [1..1] templateId (CONF:86-21987) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.159" (CONF:86-21988).
5. SHALL contain exactly one [1..1] id (CONF:86-21989).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22790).
6. SHALL contain exactly one [1..1] code (CONF:86-21345).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21346).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28387).
7. SHALL contain exactly one [1..1] statusCode (CONF:86-21347).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21348).
8. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21349).
   1. This value SHALL contain exactly one [1..1] @code="3104-7" Recorder was performer (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-21350).

Figure 156: Recorder Observation Example

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- Recorder Observation template -->

<templateId root="2.16.840.1.113883.10.20.5.6.159"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3104-7"

displayName="Recorder was performer"/>

</observation>

Report No Events

[act: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 3 - US Realm

Table 413: Report No Events Contexts

| Contained By: | Contains: |
| --- | --- |
| [Report No Events Section](#S_Report_No_Events_Section) (required) |  |

This template represents the statement that there are no events to report for a particular type of event.

Table 414: Report No Events Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| act (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3357-30599](#C_3357-30599) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ACT |
| @moodCode | 1..1 | SHALL |  | [3357-30600](#C_3357-30600) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3357-28468](#C_3357-28468) |  |
| @root | 1..1 | SHALL |  | [3357-28470](#C_3357-28470) | 2.16.840.1.113883.10.20.5.6.249 |
| @extension | 1..1 | SHALL |  | [3357-28471](#C_3357-28471) | 2018-04-01 |
| code | 1..1 | SHALL |  | [3357-28469](#C_3357-28469) |  |

1. SHALL contain exactly one [1..1] @classCode="ACT" Act (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3357-30599).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3357-30600).
3. SHALL contain exactly one [1..1] templateId (CONF:3357-28468) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.249" (CONF:3357-28470).
   2. SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-28471).
4. SHALL contain exactly one [1..1] code (CONF:3357-28469).
   1. If this is a Neonatal Intensive Care Unit (NICU) Summary Report then the code SHALL be selected from ValueSet NHSNReportNoEventsNICU urn:oid:2.16.840.1.113883.10.20.5.9.19 DYNAMIC (CONF:3357-30905).
   2. If this is an Intensive Care Unit (ICU) Summary Report then the code SHALL be selected from ValueSet NHSNReportNoEventsICU urn:oid:2.16.840.1.113883.10.20.5.9.18 DYNAMIC (CONF:3357-30906).
   3. If this is a Vascular Access Type Report (VAT) Summary Report then the code SHALL be selected from ValueSet NHSNReportNoEventsDialysis urn:oid:2.16.840.1.113883.10.20.5.9.22 DYNAMIC (CONF:3357-30907).
   4. If this is a Prevention Process and Outcome Measures (POM) Summary Report then the code SHALL be selected from ValueSet NHSNReportNoEventsMDRO urn:oid:2.16.840.1.113883.10.20.5.9.21 DYNAMIC (CONF:3357-30908).
   5. If this is a Specialty Care Area (SCA) Summary Report then the code SHALL be selected from ValueSet NHSNReportNoEventsSCA urn:oid:2.16.840.1.113883.10.20.5.9.20 DYNAMIC (CONF:3357-30909).
   6. If this is an Outpatient Procedure Component Denominator for Same Day Outcome Measures Report then the code SHALL be selected from ValueSet NHSNReportNoEventsOPCSameDayOutcomeMeasures urn:oid:2.16.840.1.113883.10.20.5.9.33 DYNAMIC (CONF:3357-30913).
   7. If this is an Antimicrobial Resistance Option (ARO) Summary Report then the code SHALL be selected from ValueSet NHSNReportNoEventsAR urn:oid:2.16.840.1.113883.10.20.5.9.35 DYNAMIC (CONF:3357-30914).
   8. If this is an MDRO and CDI LabID Event Reporting Monthly Summary Data for LTCF then the code SHALL be selected from ValueSet NHSNReportNoEventsMDROCDI (urn:oid:2.16.840.1.113883.10.20.5.1.9.1) DYNAMIC (CONF:3357-30915).

Table 415: NHSNReportNoEventsNICU

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsNICU urn:oid:2.16.840.1.113883.10.20.5.9.19  (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for neonatal intensive care unit (NICU)),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.19/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1313-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: birth weight under 750 grams |
| 1314-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: birth weight 751-1000 grams |
| 1316-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: birth weight 1001-1500 grams |
| 1317-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: birth weight 1501-2500 grams |
| 1318-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: birth weight over 2500 grams |
| 1319-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: Extremely preterm (<28 weeks) |
| 1330-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: Very preterm (28 to <32 weeks) |
| 1331-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: Moderate to late preterm (32 to <37 weeks) |
| 1332-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: PedVAE: Term (>=37 weeks) |
| 3014-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: NICU: CLABSI: under 750 grams |
| ... | | | |

Table 416: NHSNReportNoEventsICU

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsICU urn:oid:2.16.840.1.113883.10.20.5.9.18  (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for intensive care unit),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.18/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1338-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: ICU: PedVAE |
| 3010-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: ICU: CLABSI |
| 3011-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: ICU: CAUTI |
| 3012-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: ICU: VAE |
| 3013-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: ICU: PedVAP |

Table 417: NHSNReportNoEventsDialysis

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsDialysis urn:oid:2.16.840.1.113883.10.20.5.9.22  (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for dialysis),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.22/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 3052-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Dialysis: intravenous antimicrobial start |
| 3053-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Dialysis: positive blood culture |
| 3054-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Dialysis: pus, redness, or increased swelling at vascular access site |

Table 418: NHSNReportNoEventsMDRO

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsMDRO urn:oid:2.16.840.1.113883.10.20.5.9.21  (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for LabID Event),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.21/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1306-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Infection Surveillance: MSSA |
| 1307-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): MSSA |
| 1308-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (Blood specimens only): MSSA |
| 3029-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Infection Surveillance: MRSA |
| 3030-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): MRSA |
| 3031-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (Blood specimens only): MRSA |
| 3032-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Infection Surveillance: VRE |
| 3033-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): VRE |
| 3034-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (Blood specimens only): VRE |
| 3035-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Infection Surveillance: CephR Klebsiella |
| ... | | | |

Table 419: NHSNReportNoEventsSCA

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsSCA urn:oid:2.16.840.1.113883.10.20.5.9.20  (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for specialty care area / oncology),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.20/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1339-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: SCA: PedVAE |
| 3024-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: SCA: TCLAB |
| 3025-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: SCA: PCLAB |
| 3026-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: SCA: CAUTI |
| 3027-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: SCA: VAE |
| 3028-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: SCA: PedVAP |

Table 420: NHSNReportNoEventsOPCSameDayOutcomeMeasures

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsOPCSameDayOutcomeMeasures urn:oid:2.16.840.1.113883.10.20.5.9.33  (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for Outpatient Procedure Component Same Day Outcome Measures),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.33/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1340-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | No same day outcome measures (events) reported this month |

Table 421: NHSNReportNoEventsAR

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsAR urn:oid:2.16.840.1.113883.10.20.5.9.35  (Clinical Focus: NHSN surveillance reporting: indicator for reporting no events with denominators for antimicrobial resistance),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.35/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1341-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: Antimicrobial Resistance (AR) |

Table 422: NHSNReportNoEventsMDROLTCF

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNReportNoEventsMDROLTCF urn:oid:2.16.840.1.113883.10.20.5.1.9.1  (Clinical Focus: NHSN surveillance reporting: indicators for reporting no events with denominators for LTCF),(Data Element Scope: Code identifying that no event of interest occurred.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.1.9.1/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1307-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): MSSA |
| 3030-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): MRSA |
| 3033-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): VRE |
| 3036-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): CephR Klebsiella |
| 3039-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): CRE-E. coli |
| 3042-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): CRE-Enterobacter |
| 3045-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): CRE-Klebsiella |
| 3048-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): MDR-Acinetobacter |
| 3051-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report No Events: LabID Event (All specimens): C. difficile |

Figure 157: Report No Events Example

<act classCode="ACT" moodCode="EVN">

<!-- [HAI R3D3] Report No Events -->

<templateId root="2.16.840.1.113883.10.20.5.6.249" extension="2018-04-01" />

<code code="3029-6"

displayName="Report no infection surveillance events - Methicillin-resistant Staphylococcus aureus"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</act>

Revision Associated with Prior Infection Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.204 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 1 - US Realm

Table 423: Revision Associated with Prior Infection Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Clinical Statement in a Procedure Report (V2)](#Procedure_Details_Clinical_Statement_in) (optional) |  |

This template records whether or not a surgical procedure was performed as a result of a previous infection. In the NHSN context, this observation only applies to arthroplasty procedures. It is based on the C-CDA Problem Observation template.

When the revision was associated with prior infection at the index joint, set the value of @negationInd to false. When the revision was not associated with prior infection at the index joint, set the value of @negationInd to true.

Table 424: Revision Associated with Prior Infection Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.204) | | | | | |
| @classCode | 1..1 | SHALL |  | [1101-30225](#C_1101-30225) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1101-30226](#C_1101-30226) | EVN |
| @negationInd | 1..1 | SHALL |  | [1101-30227](#C_1101-30227) |  |
| templateId | 1..1 | SHALL |  | [1101-30305](#C_1101-30305) |  |
| @root | 1..1 | SHALL |  | [1101-30306](#C_1101-30306) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [1101-30229](#C_1101-30229) |  |
| @root | 1..1 | SHALL |  | [1101-30230](#C_1101-30230) | 2.16.840.1.113883.10.20.5.6.204 |
| id | 1..1 | SHALL |  | [1101-30231](#C_1101-30231) |  |
| @nullFlavor | 1..1 | SHALL |  | [1101-30232](#C_1101-30232) | NA |
| code | 1..1 | SHALL |  | [1101-30233](#C_1101-30233) |  |
| @code | 1..1 | SHALL |  | [1101-30234](#C_1101-30234) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1101-30235](#C_1101-30235) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1101-30236](#C_1101-30236) |  |
| @code | 1..1 | SHALL |  | [1101-30237](#C_1101-30237) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1101-30238](#C_1101-30238) |  |
| @code | 1..1 | SHALL |  | [1101-30239](#C_1101-30239) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 1239-3 |
| @codeSystem | 1..1 | SHALL |  | [1101-30240](#C_1101-30240) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30225).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CONF:1101-30226).
4. SHALL contain exactly one [1..1] @negationInd (CONF:1101-30227).
   1. If the revision was associated with prior infection at the index joint, the value of @negationInd SHALL be false. If the revision was not associated with prior infection at the index joint, the value of @negationInd SHALL be true (CONF:1101-30228).
5. SHALL contain exactly one [1..1] templateId (CONF:1101-30305) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:1101-30306).
6. SHALL contain exactly one [1..1] templateId (CONF:1101-30229) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.204" (CONF:1101-30230).
7. SHALL contain exactly one [1..1] id (CONF:1101-30231).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1101-30232).
8. SHALL contain exactly one [1..1] code (CONF:1101-30233).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:1101-30234).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30235).
9. SHALL contain exactly one [1..1] statusCode (CONF:1101-30236).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30237).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1101-30238).
    1. This value SHALL contain exactly one [1..1] @code="1239-3" Revision associated with prior infection at index joint (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30239).
    2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30240).

Figure 158: Revision Associated with Prior Infection Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!--

If the revision was associated with prior infection at the index joint,

the value of @negationInd SHALL be false.

If the revision was not associated with prior infection at

the index joint, the value of @negationInd SHALL be true.

-->

<!-- C-CDA Problem Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- Revision Associated with Prior Infection Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.204" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION" />

<statusCode code="completed" />

<value xsi:type="CD" code="1239-3"

displayName="Revision associated with prior infection at index joint"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</observation>

Same Day Outcome Measure Observation (V3)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01 (closed)]

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Table 425: Same Day Outcome Measure Observation (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Same Day Outcome Measures Organizer (V3)](#E_Same_Day_Outcome_Measures_Organizer_V3) (required) |  |

This template reports a facility-level outcome measure that occurs on the same day as the outpatient procedure.

The measures include:

* Patient burn
* Patient fall
* Wrong site
* Wrong side
* Wrong patient
* Wrong procedure
* Wrong implant
* Hospital transfer/admission

If the outcome occurred, set the value of @negationInd to false. If the outcome did not occur, set the value of @negationInd to true.

Table 426: Same Day Outcome Measure Observation (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-21655](#C_4395-21655) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4395-21656](#C_4395-21656) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [4395-21779](#C_4395-21779) |  |
| templateId | 1..1 | SHALL |  | [4395-21866](#C_4395-21866) |  |
| @root | 1..1 | SHALL |  | [4395-21867](#C_4395-21867) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [4395-21657](#C_4395-21657) |  |
| @root | 1..1 | SHALL |  | [4395-21658](#C_4395-21658) | 2.16.840.1.113883.10.20.5.6.208 |
| @extension | 1..1 | SHALL |  | [4395-30559](#C_4395-30559) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-21663](#C_4395-21663) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-21664](#C_4395-21664) | NA |
| code | 1..1 | SHALL |  | [4395-21659](#C_4395-21659) |  |
| @code | 1..1 | SHALL |  | [4395-21660](#C_4395-21660) | 1655-0 |
| @codeSystem | 1..1 | SHALL |  | [4395-21661](#C_4395-21661) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [4395-21665](#C_4395-21665) |  |
| @code | 1..1 | SHALL |  | [4395-21666](#C_4395-21666) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [4395-21662](#C_4395-21662) | urn:oid:2.16.840.1.114222.4.11.7214 (NHSNSameDayOutcomeMeasure) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-21655).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-21656).

If the outcome occurred, set the value of @negationInd to false. If the outcome did not occur, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:4395-21779).
2. SHALL contain exactly one [1..1] templateId (CONF:4395-21866) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:4395-21867).
3. SHALL contain exactly one [1..1] templateId (CONF:4395-21657) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.208" (CONF:4395-21658).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30559).
4. SHALL contain exactly one [1..1] id (CONF:4395-21663).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4395-21664).
5. SHALL contain exactly one [1..1] code (CONF:4395-21659).
   1. This code SHALL contain exactly one [1..1] @code="1655-0" Same day outcome measure (CONF:4395-21660).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:4395-21661).
6. SHALL contain exactly one [1..1] statusCode (CONF:4395-21665).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:4395-21666).
7. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNSameDayOutcomeMeasure](#NHSNSameDayOutcomeMeasure) urn:oid:2.16.840.1.114222.4.11.7214 DYNAMIC (CONF:4395-21662).

Table 427: NHSNSameDayOutcomeMeasure

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSameDayOutcomeMeasure urn:oid:2.16.840.1.114222.4.11.7214  (Clinical Focus: NHSN surveillance reporting:),(Data Element Scope: A coded observation value describing facility-level outcome measures that occur on the same day as the outpatient procedure.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7214/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 125666000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Burn (disorder) |
| 1645-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Hospital transfer/admission |
| 1646-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Wrong site |
| 1647-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Wrong side |
| 1648-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Wrong patient |
| 1649-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Wrong implant |
| 217082002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Accidental fall (event) |
| 370898007 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Wrong surgical procedure performed on a patient (event) |

Figure 159: Same Day Outcome Measure Observation (V3) Example

<!-- If the outcome occurred, set the value of @negationInd to false. If the outcome did not occur, set the value of @negationInd to true. -->

<!-- Outcome did not occur -->

<observation classCode="OBS" moodCode="EVN" negationInd="true">

<!-- C-CDA R1.1 Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4" />

<!-- Same Day Outcome Measure Observation (V3) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.208" extension="2019-04-01" />

<id nullFlavor="NA" />

<code code="1655-0"

displayName="Same Day Outcome Measure"

codeSystem="2.16.840.1.113883.6.277"

codeSystmeName="cdcNHSN"/>

<statusCode code="completed" />

<effectiveTime>

<low value="20130805" />

</effectiveTime>

<value xsi:type="CD"

code="370898007"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Wrong surgical procedure performed on a patient" />

</observation>

Same Day Outcome Measures Organizer (V3)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01 (closed)]

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Table 428: Same Day Outcome Measures Organizer (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Same Day Outcome Measures Event Details Section](#S_Same_Day_Outcome_Measures_Event_Detai) (optional) | [Same Day Outcome Measure Observation (V3)](#E_Same_Day_Outcome_Measure_Obs_V3) (required) |

This organizer groups together the same-day outcome measures.

Table 429: Same Day Outcome Measures Organizer (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-21784](#C_4395-21784) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [4395-21785](#C_4395-21785) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4395-21781](#C_4395-21781) |  |
| @root | 1..1 | SHALL |  | [4395-21786](#C_4395-21786) | 2.16.840.1.113883.10.20.5.6.212 |
| @extension | 1..1 | SHALL |  | [4395-30560](#C_4395-30560) | 2019-04-01 |
| statusCode | 1..1 | SHALL |  | [4395-21782](#C_4395-21782) |  |
| @code | 1..1 | SHALL |  | [4395-21787](#C_4395-21787) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..\* | SHALL |  | [4395-21780](#C_4395-21780) |  |
| observation | 1..1 | SHALL |  | [4395-21783](#C_4395-21783) | [Same Day Outcome Measure Observation (V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01](#E_Same_Day_Outcome_Measure_Obs_V3) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-21784).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-21785).
3. SHALL contain exactly one [1..1] templateId (CONF:4395-21781) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.212" (CONF:4395-21786).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30560).
4. SHALL contain exactly one [1..1] statusCode (CONF:4395-21782).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4395-21787).
5. SHALL contain at least one [1..\*] component (CONF:4395-21780).
   1. Such components SHALL contain exactly one [1..1] [Same Day Outcome Measure Observation (V3)](#E_Same_Day_Outcome_Measure_Obs_V3) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01) (CONF:4395-21783).

Figure 160: Same Day Outcome Measures Organizer (V3) Example

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- Same Day Outcome Measures Organizer templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.212" extension="2019-04-01" />

<statusCode code="completed" />

<component>

<!-- Same Day Outcome Measure Observation (V3) -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- Same Day Outcome Measure templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.208" extension="2019-04-01" />

...

</observation>

</component>

<component>

<!-- Same Day Outcome Measure Observation (V3) -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- Same Day Outcome Measure templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.208" extension="2019-04-01" />

...

</observation>

</component>

...

</organizer>

Secondary Bloodstream Infection Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.160 (closed)]

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Table 430: Secondary Bloodstream Infection Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection-Type Observation](#E_InfectionType_Observation) (optional) |  |

This observation records whether a secondary bloodstream infection was present.  
If a secondary bloodstream infection was present, set the value of observation/@negationInd to false. If a secondary bloodstream infection was not present, set the value of observation/@negationInd to true.

Table 431: Secondary Bloodstream Infection Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.160) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19840](#C_86-19840) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19841](#C_86-19841) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19842](#C_86-19842) |  |
| templateId | 1..1 | SHALL |  | [86-28275](#C_86-28275) |  |
| @root | 1..1 | SHALL |  | [86-28276](#C_86-28276) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19851](#C_86-19851) |  |
| @root | 1..1 | SHALL |  | [86-19852](#C_86-19852) | 2.16.840.1.113883.10.20.5.6.160 |
| id | 1..1 | SHALL |  | [86-23363](#C_86-23363) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-23364](#C_86-23364) | NA |
| code | 1..1 | SHALL |  | [86-19843](#C_86-19843) |  |
| @code | 1..1 | SHALL |  | [86-19844](#C_86-19844) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28388](#C_86-28388) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-19845](#C_86-19845) |  |
| @code | 1..1 | SHALL |  | [86-19846](#C_86-19846) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-19847](#C_86-19847) |  |
| @code | 1..1 | SHALL |  | [86-19848](#C_86-19848) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 3111-2 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19840).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19841).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-19842).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28275) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28276).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19851) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.160" (CONF:86-19852).
7. SHALL contain exactly one [1..1] id (CONF:86-23363).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-23364).
8. SHALL contain exactly one [1..1] code (CONF:86-19843).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-19844).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28388).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19845).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19846).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-19847).
    1. This value SHALL contain exactly one [1..1] @code="3111-2" Secondary bloodstream infection (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-19848).

Figure 161: Secondary Bloodstream Infection Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Secondary Bloodstream Infection Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.160"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value

xsi:type="CD"

code="3111-2"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Secondary bloodstream infection"/>

</observation>

Skin Preparation Clinical Statement (V2)

[substanceAdministration: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 2.1 - US Realm

Table 432: Skin Preparation Clinical Statement (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Skin-Preparation Solutions Applied Organizer (V2)](#E_SkinPreparation_Solutions_Applied_Org) (required) | [Contraindicated Observation (V2)](#E_Contraindicated_Observation_V2) (optional) |

This observation records a skin-preparation solution. It is used in the Skin-Preparation Solutions Applied clinical statement in the Central-Line Insertion Practice Report.

If the preparation step included application of the solution specified, set the value of @negationInd to false. If the preparation step did not include application of the solution specified, set the value of @negationInd to true.

Table 433: Skin Preparation Clinical Statement (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| substanceAdministration (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-21359](#C_1129-21359) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = SBADM |
| @moodCode | 1..1 | SHALL |  | [1129-21360](#C_1129-21360) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [1129-21361](#C_1129-21361) |  |
| templateId | 1..1 | SHALL |  | [1129-30537](#C_1129-30537) |  |
| @root | 1..1 | SHALL |  | [1129-30538](#C_1129-30538) | 2.16.840.1.113883.10.20.22.4.16 |
| templateId | 1..1 | SHALL |  | [1129-22118](#C_1129-22118) |  |
| @root | 1..1 | SHALL |  | [1129-22124](#C_1129-22124) | 2.16.840.1.113883.10.20.5.6.162 |
| @extension | 1..1 | SHALL |  | [1129-30539](#C_1129-30539) | 2014-12-01 |
| id | 1..1 | SHALL |  | [1129-22119](#C_1129-22119) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-22785](#C_1129-22785) | NA |
| statusCode | 1..1 | SHALL |  | [1129-22120](#C_1129-22120) |  |
| @code | 1..1 | SHALL |  | [1129-28105](#C_1129-28105) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL | IVL\_TS | [1129-22121](#C_1129-22121) |  |
| low | 1..1 | SHALL |  | [1129-22122](#C_1129-22122) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-22786](#C_1129-22786) | NA |
| high | 1..1 | SHALL |  | [1129-22123](#C_1129-22123) |  |
| @nullFlavor | 1..1 | SHALL |  | [1129-22787](#C_1129-22787) | NA |
| consumable | 1..1 | SHALL |  | [1129-21362](#C_1129-21362) |  |
| manufacturedProduct | 1..1 | SHALL |  | [1129-21363](#C_1129-21363) |  |
| @classCode | 1..1 | SHALL |  | [1129-21364](#C_1129-21364) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| templateId | 1..1 | SHALL |  | [1129-30556](#C_1129-30556) |  |
| @root | 1..1 | SHALL |  | [1129-30557](#C_1129-30557) | 2.16.840.1.113883.10.20.22.4.23 |
| manufacturedMaterial | 1..1 | SHALL |  | [1129-21365](#C_1129-21365) |  |
| @classCode | 1..1 | SHALL |  | [1129-21366](#C_1129-21366) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = MMAT |
| code | 1..1 | SHALL |  | [1129-21367](#C_1129-21367) |  |
| entryRelationship | 0..1 | MAY |  | [1129-23291](#C_1129-23291) |  |
| @typeCode | 1..1 | SHALL |  | [1129-23292](#C_1129-23292) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = RSON |
| observation | 1..1 | SHALL |  | [1129-30431](#C_1129-30431) | [Contraindicated Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01](#E_Contraindicated_Observation_V2) |

1. Conforms to Medication Activity template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.16).
2. SHALL contain exactly one [1..1] @classCode="SBADM" Substance administration (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-21359).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-21360).
4. SHALL contain exactly one [1..1] @negationInd (CONF:1129-21361).
5. SHALL contain exactly one [1..1] templateId (CONF:1129-30537) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.16" (CONF:1129-30538).
6. SHALL contain exactly one [1..1] templateId (CONF:1129-22118) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.162" (CONF:1129-22124).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30539).
7. SHALL contain exactly one [1..1] id (CONF:1129-22119).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22785).
8. SHALL contain exactly one [1..1] statusCode (CONF:1129-22120).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1129-28105).
9. SHALL contain exactly one [1..1] effectiveTime (CONF:1129-22121).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:1129-22122).
      1. This low SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22786).
   2. This effectiveTime SHALL contain exactly one [1..1] high (CONF:1129-22123).
      1. This high SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1129-22787).
10. SHALL contain exactly one [1..1] consumable (CONF:1129-21362).
    1. This consumable SHALL contain exactly one [1..1] manufacturedProduct (CONF:1129-21363).
       1. This manufacturedProduct SHALL contain exactly one [1..1] @classCode="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:1129-21364).
       2. This manufacturedProduct SHALL contain exactly one [1..1] templateId (CONF:1129-30556) such that it
          1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.23" (CONF:1129-30557).
       3. This manufacturedProduct SHALL contain exactly one [1..1] manufacturedMaterial (CONF:1129-21365).
          1. This manufacturedMaterial SHALL contain exactly one [1..1] @classCode="MMAT" Manufactured material (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:1129-21366).
          2. This manufacturedMaterial SHALL contain exactly one [1..1] code (CONF:1129-21367).
             1. To record a skin-preparation solution as a code, the value of @code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.3183 NHSNSkinPreparationCode DYNAMIC. Or, to record a skin-preparation solution as text, the value of @nullFlavor SHALL be OTH and an originalText element SHALL be present recording the skin-preparation solution (CONF:1129-21368).

When recording whether chlorhexidine gluconate was applied, if it was not applied, NHSN protocol requires that it be recorded whether there was a contraindication to it.

1. MAY contain zero or one [0..1] entryRelationship (CONF:1129-23291) such that it
   1. SHALL contain exactly one [1..1] @typeCode="RSON" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1129-23292).
   2. SHALL contain exactly one [1..1] [Contraindicated Observation (V2)](#E_Contraindicated_Observation_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01) (CONF:1129-30431).
      1. When recording whether chlorhexidine gluconate was applied, if it was not applied, and was contraindicated, the value of @negationInd on the Contraindicated Observation SHALL be false. If it was not contraindicated, the value of @negationInd on the Contraindicated Observation SHALL be true. If it is not known whether it was contraindicated, the value of @nullFlavor on the Contraindicated Observation SHALL be UNK. For examples and further explanation, see the Contraindicated Observation template (CONF:1129-23294).
   3. If chlorhexidine gluconate was NOT applied, SHALL contain an entryRelationship containing a Contraindicated Observation (CONF:1129-23295).

Table 434: NHSNSkinPreparationCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSkinPreparationCode urn:oid:2.16.840.1.114222.4.11.3183  (Clinical Focus: Skin antiseptic used prior to catheter insertion for NHSN surveillance reporting of Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A code identifying the manufactured skin preparation solution used.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3183/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 20791 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | chlorhexidine gluconate |
| 797541 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | isopropyl alcohol |
| 8611 | RxNorm | urn:oid:2.16.840.1.113883.6.88 | povidone-iodine |

Figure 162: Skin Preparation Clinical Statement (V2) Example

<substanceAdministration moodCode="EVN" classCode="SBADM" negationInd="false">

<!-- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16"/>

<!-- HAI Skin preparation Clinical Statement (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.162"

extension="2014-12-01" />

<id nullFlavor="NA"/>

<statusCode code="completed"/>

<effectiveTime xsi:type="IVL\_TS">

<low nullFlavor="NA"/>

<high nullFlavor="NA"/>

</effectiveTime>

<consumable>

<manufacturedProduct classCode="MANU">

<templateId root="2.16.840.1.113883.10.20.22.4.23" />

<manufacturedMaterial classCode="MMAT">

<code codeSystem="2.16.840.1.113883.6.88"

codeSystemName="RxNorm"

code="6052"

displayName="Alcohol"/>

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

...

</substanceAdministration>

Figure 163: Skin Preparation Clinical Statement (V2) - Chlorhexidine Not Applied Example

<substanceAdministration moodCode="EVN" classCode="SBADM" negationInd="true">

<!-- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16" />

<!-- HAI Skin preparation Clinical Statement (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.162"

extension="2014-12-01"/>

<id nullFlavor="NA" />

<statusCode code="completed" />

<effectiveTime xsi:type="IVL\_TS">

<low nullFlavor="NA" />

<high nullFlavor="NA" />

</effectiveTime>

<consumable>

<manufacturedProduct classCode="MANU">

<!-- C-CDA Medication Information templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.23"/>

<manufacturedMaterial classCode="MMAT">

<code codeSystem="2.16.840.1.113883.6.88"

codeSystemName="RxNorm"

code="20791"

displayName="Chlorhexidine gluconate" />

</manufacturedMaterial>

</manufacturedProduct>

</consumable>

<!-- if chlorhexidine was not applied, record here whether it was contraindicated -->

<entryRelationship typeCode="RSON">

<!-- Contraindicated Observation -->

<!-- It is true (not-negated) that the target statement was contraindicated -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Indication templateId-->

<templateId root="2.16.840.1.113883.10.20.22.4.19" />

<!-- HAI Contraindicated Observation (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.118"

extension="2014-12-01" />

...

</observation>

</entryRelationship>

</substanceAdministration>

Skin-Preparation Solutions Applied Organizer (V2)

[organizer: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01 (closed)]

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Table 435: Skin-Preparation Solutions Applied Organizer (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Central-Line Insertion Preparation Organizer (V2)](#E_CentralLine_Insertion_Preparation_Org) (required) | [Skin Preparation Clinical Statement (V2)](#E_Skin_Preparation_Clinical_Statement_V2) (required) |

This organizer reports what skin-preparation solutions were applied. It is one of the actions recorded in the first, preparatory step in the central-line insertion practice sequence.

The Skin Preparation Clinical Statement provides the list of skin preparation solutions to record.

Table 436: Skin-Preparation Solutions Applied Organizer (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| organizer (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1129-22252](#C_1129-22252) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = CLUSTER |
| @moodCode | 1..1 | SHALL |  | [1129-22253](#C_1129-22253) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1129-22254](#C_1129-22254) |  |
| @root | 1..1 | SHALL |  | [1129-28110](#C_1129-28110) | 2.16.840.1.113883.10.20.5.6.183 |
| @extension | 1..1 | SHALL |  | [1129-30293](#C_1129-30293) | 2014-12-01 |
| statusCode | 1..1 | SHALL |  | [1129-22257](#C_1129-22257) |  |
| @code | 1..1 | SHALL |  | [1129-22258](#C_1129-22258) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| component | 1..\* | SHALL |  | [1129-22260](#C_1129-22260) |  |
| substanceAdministration | 1..1 | SHALL |  | [1129-30432](#C_1129-30432) | [Skin Preparation Clinical Statement (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01](#E_Skin_Preparation_Clinical_Statement_V2) |

1. SHALL contain exactly one [1..1] @classCode="CLUSTER" Cluster (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1129-22252).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1129-22253).
3. SHALL contain exactly one [1..1] templateId (CONF:1129-22254) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.183" (CONF:1129-28110).
   2. SHALL contain exactly one [1..1] @extension="2014-12-01" (CONF:1129-30293).
4. SHALL contain exactly one [1..1] statusCode (CONF:1129-22257).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:1129-22258).
5. SHALL contain at least one [1..\*] component (CONF:1129-22260).
   1. Such components SHALL contain exactly one [1..1] [Skin Preparation Clinical Statement (V2)](#E_Skin_Preparation_Clinical_Statement_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01) (CONF:1129-30432).
   2. A component containing a Skin Preparation Clinical Statement SHALL be present for each skin-preparation solution required by the NHSN protocol. One additional such component element MAY be present recording an uncoded (text) skin-preparation solution (CONF:1129-22262).

Figure 164: Skin-Preparation Solutions Applied Organizer (V2) Example

<organizer moodCode="EVN" classCode="CLUSTER">

<!-- Skin-Preparation Solutions Applied Organizer (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.183"

extension="2014-12-01" />

<statusCode code="completed"/>

<component>

<substanceAdministration>

<!-- C-CDA Medication Activity templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.16"/>

<!-- HAI Skin Preparation Clinical Statement (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.162"

extension="2014-12-01" />

...

</substanceAdministration>

</component>

...

</organizer>

Solutions Dried Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.163 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 437: Solutions Dried Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Central-Line Insertion Practice Clinical Statement (V2)](#E_CentralLine_Insertion_Practice_Clinic) (required) |  |

This clinical statement represents the second step in the central-line insertion practice sequence: whether the skin-preparation solution(s) applied had dried before the next step, which is the central-line insertion itself.  
If the step was completed at this place in the sequence, set the value of @negationInd to false. If this step was not completed at this place in the sequence, set the value of @negationInd to true.

Table 438: Solutions Dried Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.163) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-20938](#C_86-20938) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-20939](#C_86-20939) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-20940](#C_86-20940) |  |
| templateId | 1..1 | SHALL |  | [86-28277](#C_86-28277) |  |
| @root | 1..1 | SHALL |  | [86-28278](#C_86-28278) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-20943](#C_86-20943) |  |
| @root | 1..1 | SHALL |  | [86-20944](#C_86-20944) | 2.16.840.1.113883.10.20.5.6.163 |
| id | 1..1 | SHALL |  | [86-20945](#C_86-20945) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22783](#C_86-22783) | NA |
| code | 1..1 | SHALL |  | [86-20946](#C_86-20946) |  |
| @code | 1..1 | SHALL | CS | [86-20947](#C_86-20947) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28389](#C_86-28389) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-20948](#C_86-20948) |  |
| @code | 1..1 | SHALL |  | [86-20949](#C_86-20949) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-20950](#C_86-20950) |  |
| @code | 1..1 | SHALL |  | [86-20952](#C_86-20952) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 3114-6 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-20938).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-20939).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-20940).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28277) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28278).
6. SHALL contain exactly one [1..1] templateId (CONF:86-20943) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.163" (CONF:86-20944).
7. SHALL contain exactly one [1..1] id (CONF:86-20945).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22783).
8. SHALL contain exactly one [1..1] code (CONF:86-20946).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-20947).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28389).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-20948).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-20949).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-20950).
    1. This value SHALL contain exactly one [1..1] @code="3114-6" Solution(s) had dried (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-20952).

Figure 165: Solutions Dried Observation Example

<sequenceNumber value="2"/>

<observation moodCode="EVN" classCode="OBS" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Solutions Dried Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.163"/>

<id nullFlavor="NA" />

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4" />

<statusCode code="completed"/>

<value xsi:type="CD"

code="3114-6"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Solution(s) had dried"/>

</observation>

Specimen Collection Encounter (ARO) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, Normative 1 - US Realm

Table 439: Specimen Collection Encounter (ARO) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Specimen Collection Procedure (ARO) (V4)](#E_Specimen_Collection_Procedure_ARO_V4) (required) | [Patient Admitted This Encounter Observation](#E_Patient_Admitted_This_Encounter_Obser) (required) |

The Specimen Collection Encounter (ARO) records the in-facility location where a specimen was collected.

This template conforms to the C-CDA Encounter Activities template. That template requires an id; in the NHSN ARO Report, the id of the encounter is not reported, therefore a "NA" nullFlavor is used for the required id.

The participant element represents the in-facility location where the specimen was collected. The value of participantRole/id/@root will be the same as the healthCareFacility in the encompassingEncounter, but here it is scoping the in-facility location where the specimen was collected, represented in the @extension.

The contained Patient Admitted This Encounter Observation represents whether or not the patient was admitted to an inpatient location during this encounter.

Table 440: Specimen Collection Encounter (ARO) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4459-22649](#C_4459-22649) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [4459-22650](#C_4459-22650) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4459-28279](#C_4459-28279) |  |
| @root | 1..1 | SHALL |  | [4459-28280](#C_4459-28280) | 2.16.840.1.113883.10.20.22.4.49 |
| templateId | 1..1 | SHALL |  | [4459-22651](#C_4459-22651) |  |
| @root | 1..1 | SHALL |  | [4459-22652](#C_4459-22652) | 2.16.840.1.113883.10.20.5.6.187 |
| @extension | 1..1 | SHALL |  | [4459-30795](#C_4459-30795) | 2020-04-01 |
| id | 1..1 | SHALL |  | [4459-22653](#C_4459-22653) |  |
| @nullFlavor | 1..1 | SHALL |  | [4459-22654](#C_4459-22654) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = NA |
| effectiveTime | 1..1 | SHALL |  | [4459-22655](#C_4459-22655) |  |
| @nullFlavor | 1..1 | SHALL |  | [4459-22656](#C_4459-22656) | NA |
| participant | 1..1 | SHALL |  | [4459-22657](#C_4459-22657) |  |
| @typeCode | 1..1 | SHALL |  | [4459-22658](#C_4459-22658) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [4459-22659](#C_4459-22659) |  |
| @classCode | 1..1 | SHALL |  | [4459-22660](#C_4459-22660) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC |
| id | 1..1 | SHALL |  | [4459-22661](#C_4459-22661) |  |
| @root | 1..1 | SHALL |  | [4459-22662](#C_4459-22662) |  |
| @extension | 1..1 | SHALL |  | [4459-22663](#C_4459-22663) |  |
| playingEntity | 1..1 | SHALL |  | [4459-22664](#C_4459-22664) |  |
| @classCode | 1..1 | SHALL |  | [4459-22665](#C_4459-22665) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| code | 1..1 | SHALL |  | [4459-22666](#C_4459-22666) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| entryRelationship | 1..1 | SHALL |  | [4459-30796](#C_4459-30796) |  |
| @typeCode | 1..1 | SHALL |  | [4459-30798](#C_4459-30798) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [4459-30797](#C_4459-30797) | [Patient Admitted This Encounter Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01](#E_Patient_Admitted_This_Encounter_Obser) |

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4459-22649).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4459-22650).
4. SHALL contain exactly one [1..1] templateId (CONF:4459-28279) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:4459-28280).
5. SHALL contain exactly one [1..1] templateId (CONF:4459-22651) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.187" (CONF:4459-22652).
   2. SHALL contain exactly one [1..1] @extension="2020-04-01" (CONF:4459-30795).
6. SHALL contain exactly one [1..1] id (CONF:4459-22653).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4459-22654).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:4459-22655).
   1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:4459-22656).
8. SHALL contain exactly one [1..1] participant (CONF:4459-22657).
   1. This participant SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4459-22658).
   2. This participant SHALL contain exactly one [1..1] participantRole (CONF:4459-22659).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:4459-22660).
      2. This participantRole SHALL contain exactly one [1..1] id (CONF:4459-22661).

The value of @root must be the NHSN assigned Facility OID.

* + - 1. This id SHALL contain exactly one [1..1] @root (CONF:4459-22662).

The value of @extension must be a value registered with NHSN.

* + - 1. This id SHALL contain exactly one [1..1] @extension (CONF:4459-22663).
    1. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:4459-22664).
       1. This playingEntity SHALL contain exactly one [1..1] @classCode="PLC" Place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:4459-22665).
       2. This playingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:4459-22666).

1. SHALL contain exactly one [1..1] entryRelationship (CONF:4459-30796).
   1. This entryRelationship SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4459-30798).
   2. This entryRelationship SHALL contain exactly one [1..1] [Patient Admitted This Encounter Observation](#E_Patient_Admitted_This_Encounter_Obser) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01) (CONF:4459-30797).

Figure 166: Specimen Collection Encounter (ARO) (V2) Example

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3N1] Specimen Collection Encounter (ARO) (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.187" extension="2020-04-01" />

<!-- [C-CDA R1.1] Encounter Activities -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<id nullFlavor="NA" />

<effectiveTime nullFlavor="NA" />

<!-- The in-facility location where the specimen was collected -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<playingEntity classCode="PLC">

<code codeSystem="2.16.840.1.113883.6.259" codeSystemName="HL7 HealthCareServiceLocation" code="1029-8" displayName="Medical/Surgical Critical Care" />

</playingEntity>

</participantRole>

</participant>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3N1] Patient Admitted This Encounter Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.266" extension="2020-04-01" />

...

</observation>

</entryRelationship>

</encounter>

Specimen Collection Encounter (LIO)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.164 (closed)]

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Table 441: Specimen Collection Encounter (LIO) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Specimen Collection Procedure (LIO)](#E_Specimen_Collection_Procedure_LIO) (required) |  |

The Specimen Collection Encounter (LIO) records the facility location where a specimen was collected and, if the patient was an inpatient, the date the patient was admitted or transferred to that in-facility location.

This template conforms to the C-CDA Encounter Activities template. That template requires an id; in the NHSN LIO Report, the id of the encounter is not reported, therefore a "NA" nullFlavor is used for the required id.

The participant element represents the facility location where the specimen was collected. The value of participantRole/id/@root will be the same as the healthCareFacility in the encompassingEncounter, but here it is scoping the facility location where the specimen was collected, represented in the @extension.

Table 442: Specimen Collection Encounter (LIO) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.164) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21563](#C_86-21563) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [86-21564](#C_86-21564) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28281](#C_86-28281) |  |
| @root | 1..1 | SHALL |  | [86-28282](#C_86-28282) | 2.16.840.1.113883.10.20.22.4.49 |
| templateId | 1..1 | SHALL |  | [86-21567](#C_86-21567) |  |
| @root | 1..1 | SHALL |  | [86-21568](#C_86-21568) | 2.16.840.1.113883.10.20.5.6.164 |
| id | 1..1 | SHALL |  | [86-21569](#C_86-21569) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-21583](#C_86-21583) | NA |
| effectiveTime | 1..1 | SHALL |  | [86-21584](#C_86-21584) |  |
| participant | 1..1 | SHALL |  | [86-21571](#C_86-21571) |  |
| @typeCode | 1..1 | SHALL |  | [86-21572](#C_86-21572) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [86-21573](#C_86-21573) |  |
| @classCode | 1..1 | SHALL |  | [86-21574](#C_86-21574) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SDLOC |
| id | 1..1 | SHALL |  | [86-21575](#C_86-21575) |  |
| @root | 1..1 | SHALL |  | [86-21576](#C_86-21576) |  |
| @extension | 1..1 | SHALL |  | [86-21577](#C_86-21577) |  |
| playingEntity | 1..1 | SHALL |  | [86-21578](#C_86-21578) |  |
| @classCode | 1..1 | SHALL |  | [86-21579](#C_86-21579) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PLC |
| code | 1..1 | SHALL |  | [86-21580](#C_86-21580) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |

1. Conforms to Encounter Activities template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.49).
2. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21563).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21564).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28281) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.49" (CONF:86-28282).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21567) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.164" (CONF:86-21568).
6. SHALL contain exactly one [1..1] id (CONF:86-21569).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-21583).
7. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21584).
   1. If the patient was an inpatient, an effectiveTime/low element SHALL be present representing the date the patient was admitted or transferred to that location (CONF:86-21585).
   2. If the patient was not an inpatient and the encounter DataTime is not known or not available, an appropriate nullFlavor SHALL be used on effectiveTime element (CONF:86-21604).
8. SHALL contain exactly one [1..1] participant (CONF:86-21571).
   1. This participant SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-21572).
   2. This participant SHALL contain exactly one [1..1] participantRole (CONF:86-21573).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service delivery location (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:86-21574).
      2. This participantRole SHALL contain exactly one [1..1] id (CONF:86-21575).

The value of @root must be the NHSN assigned Facility OID.

* + - 1. This id SHALL contain exactly one [1..1] @root (CONF:86-21576).

The value of @extension must be a value registered with NHSN.

* + - 1. This id SHALL contain exactly one [1..1] @extension (CONF:86-21577).
    1. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:86-21578).
       1. This playingEntity SHALL contain exactly one [1..1] @classCode="PLC" Place (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:86-21579).
       2. This playingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:86-21580).

Figure 167: Specimen Collection Location and Admission Date (LIO) Example

<!-- Location and admission date -->

<encounter classCode="ENC" moodCode="EVN">

<!-- C-CDA Encounter Activities templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- HAI Specimen Collection Encounter (LIO) -->

<templateId root="2.16.840.1.113883.10.20.5.6.164" />

<id nullFlavor="NA" />

<!-- If person was an inpatient at the in-facility location

where the specimen was taken:

date admitted/transferred there -->

<effectiveTime>

<low value="20090117" />

</effectiveTime>

<!-- The in-facility location where the specimen was taken -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<playingEntity classCode="PLC">

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthcareServiceLocation"

code="1029-8"

displayName="Medical/Surgical Critical Care" />

</playingEntity>

</participantRole>

</participant>

</encounter>

Specimen Collection Procedure (ARO) (V4)

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2020-04-01 (closed)]

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Table 443: Specimen Collection Procedure (ARO) (V4) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Findings Section in an ARO Report (V4)](#S_Findings_Section_in_an_ARO_Report_V4) (required) | [Specimen Collection Encounter (ARO) (V2)](#E_Specimen_Collection_Encounter_ARO_V2) (required)  [Isolate Susceptibility Tests Organizer (V4)](#E_Isolate_Susceptibility_Tests_Org_V4) (required) |

The Specimen Collection Procedure (ARO) records the date a specimen was collected and the type of specimen. It includes a Specimen Collection Encounter (ARO), which records the in-facility location where the specimen was collected. The template is derived from the Specimen Collection Procedure template from Public Health Case Reports.

In the ARO Report, a collection procedure code is not recorded. The effectiveTime element records the date when the specimen was collected. The participant element records the specimen type.

Table 444: Specimen Collection Procedure (ARO) (V4) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2020-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4459-22668](#C_4459-22668) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [4459-22669](#C_4459-22669) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4459-22670](#C_4459-22670) |  |
| @root | 1..1 | SHALL |  | [4459-22671](#C_4459-22671) | 2.16.840.1.113883.10.20.5.6.188 |
| @extension | 1..1 | SHALL |  | [4459-30472](#C_4459-30472) | 2020-04-01 |
| effectiveTime | 1..1 | SHALL |  | [4459-22672](#C_4459-22672) |  |
| @value | 1..1 | SHALL |  | [4459-22673](#C_4459-22673) |  |
| specimen | 1..1 | SHALL |  | [4459-27160](#C_4459-27160) |  |
| specimenRole | 1..1 | SHALL |  | [4459-27161](#C_4459-27161) |  |
| specimenPlayingEntity | 1..1 | SHALL |  | [4459-27162](#C_4459-27162) |  |
| code | 1..1 | SHALL |  | [4459-27163](#C_4459-27163) | urn:oid:2.16.840.1.114222.4.11.3249 (NHSNSpecimenTypeCode) |
| entryRelationship | 1..1 | SHALL |  | [4459-22681](#C_4459-22681) |  |
| @typeCode | 1..1 | SHALL |  | [4459-22682](#C_4459-22682) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [4459-22683](#C_4459-22683) | true |
| encounter | 1..1 | SHALL |  | [4459-22684](#C_4459-22684) | [Specimen Collection Encounter (ARO) (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01](#E_Specimen_Collection_Encounter_ARO_V2) |
| entryRelationship | 1..\* | SHALL |  | [4459-27164](#C_4459-27164) |  |
| @typeCode | 1..1 | SHALL |  | [4459-27165](#C_4459-27165) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [4459-27432](#C_4459-27432) | true |
| organizer | 1..1 | SHALL |  | [4459-30471](#C_4459-30471) | [Isolate Susceptibility Tests Organizer (V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2020-04-01](#E_Isolate_Susceptibility_Tests_Org_V4) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4459-22668).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4459-22669).
3. SHALL contain exactly one [1..1] templateId (CONF:4459-22670) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.188" (CONF:4459-22671).
   2. SHALL contain exactly one [1..1] @extension="2020-04-01" (CONF:4459-30472).
4. SHALL contain exactly one [1..1] effectiveTime (CONF:4459-22672).
   1. This effectiveTime SHALL contain exactly one [1..1] @value (CONF:4459-22673).
5. SHALL contain exactly one [1..1] specimen (CONF:4459-27160).
   1. This specimen SHALL contain exactly one [1..1] specimenRole (CONF:4459-27161).
      1. This specimenRole SHALL contain exactly one [1..1] specimenPlayingEntity (CONF:4459-27162).
         1. This specimenPlayingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNSpecimenTypeCode](#NHSNSpecimenTypeCode) urn:oid:2.16.840.1.114222.4.11.3249 DYNAMIC (CONF:4459-27163).
6. SHALL contain exactly one [1..1] entryRelationship (CONF:4459-22681) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4459-22682).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:4459-22683).
   3. SHALL contain exactly one [1..1] [Specimen Collection Encounter (ARO) (V2)](#E_Specimen_Collection_Encounter_ARO_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01) (CONF:4459-22684).
7. SHALL contain at least one [1..\*] entryRelationship (CONF:4459-27164) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:4459-27165).
   2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:4459-27432).
   3. SHALL contain exactly one [1..1] [Isolate Susceptibility Tests Organizer (V4)](#E_Isolate_Susceptibility_Tests_Org_V4) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2020-04-01) (CONF:4459-30471).

Table 445: NHSNSpecimenTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSpecimenTypeCode urn:oid:2.16.840.1.114222.4.11.3249  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of specimen.),(Data Element Scope: A code identifying the type of entity playing the role of specimen. A code identifying the type of specimen.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 9/16/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3249/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 110893002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Cutaneous cytologic material (specimen) |
| 110894008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Mammary cytologic material (specimen) |
| 110896005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Subcutaneous cytologic material (specimen) |
| 110903005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Nasal cytologic material (specimen) |
| 110926003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Gallbladder cytologic material (specimen) |
| 110931001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Penis cytologic material (specimen) |
| 110933003 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Prostate cytologic material (specimen) |
| 110935005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Testis cytologic material (specimen) |
| 110937002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Seminal vesicle cytologic material (specimen) |
| 110939004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Vas deferens cytologic material (specimen) |
| ... | | | |

Figure 168: Specimen Collection Procedure (ARO) (V4) Example

<procedure classCode="PROC" moodCode="EVN">

<!-- [HAI R3N1] Specimen Collection Procedure (ARO) (V4) -->

<templateId root="2.16.840.1.113883.10.20.5.6.188" extension="2020-04-01" />

<!-- Date specimen collected -->

<effectiveTime value="20200121" />

<specimen>

<specimenRole>

<specimenPlayingEntity>

<!-- Specimen type -->

<code codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT" code="119297000" displayName="Blood specimen" />

</specimenPlayingEntity>

</specimenRole>

</specimen>

<!-- [HAI R3N1] Specimen Collection Encounter (ARO) -->

<entryRelationship typeCode="COMP" inversionInd="true">

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3N1] Specimen Collection Encounter (ARO) (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.187" extension="2020-04-01" />

<!-- [C-CDA R1.1] Encounter Activities -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

...

</encounter>

</entryRelationship>

<!-- [HAI R3N1] Isolate Susceptibility Tests Organizer (V4) -->

<entryRelationship typeCode="COMP" inversionInd="true">

<organizer classCode="CLUSTER" moodCode="EVN">

<!-- [HAI R3D1.1] Isolate Susceptibility Tests Organizer (V3) -->

<templateId root="2.16.840.1.113883.10.20.5.6.201" extension="2020-04-01" />

...

</organizer>

</entryRelationship>

</procedure>

Specimen Collection Procedure (LIO)

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.165 (closed)]

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Table 446: Specimen Collection Procedure (LIO) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Pathogen Identified Observation (LIO) (V2)](#E_Pathogen_Identified_Observation_LIO_V2) (required) | [Specimen Collection Encounter (LIO)](#E_Specimen_Collection_Encounter_LIO) (required) |

The Specimen Collection Procedure (LIO) records the date a specimen was collected and the type of specimen. It includes a Specimen Collection Encounter (LIO), which records the facility location where the specimen was collected and, for an inpatient, the date the patient was admitted or transferred to that in-facility location. The template is derived from the Specimen Collection Procedure template from Public Health Case Reports.

In the LIO Report, a collection procedure code is not recorded. The effectiveTime element records the date when the specimen was collected. The participant element records the specimen type.

Table 447: Specimen Collection Procedure (LIO) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.165) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21389](#C_86-21389) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-21390](#C_86-21390) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-21982](#C_86-21982) |  |
| @root | 1..1 | SHALL |  | [86-21983](#C_86-21983) | 2.16.840.1.113883.10.20.5.6.165 |
| effectiveTime | 1..1 | SHALL |  | [86-21391](#C_86-21391) |  |
| @value | 1..1 | SHALL |  | [86-21392](#C_86-21392) |  |
| participant | 1..1 | SHALL |  | [86-21393](#C_86-21393) |  |
| @typeCode | 1..1 | SHALL |  | [86-21394](#C_86-21394) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = PRD |
| participantRole | 1..1 | SHALL |  | [86-21395](#C_86-21395) |  |
| @classCode | 1..1 | SHALL |  | [86-21396](#C_86-21396) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = SPEC |
| playingEntity | 1..1 | SHALL |  | [86-21397](#C_86-21397) |  |
| code | 1..1 | SHALL |  | [86-21398](#C_86-21398) | urn:oid:2.16.840.1.114222.4.11.3249 (NHSNSpecimenTypeCode) |
| @nullFlavor | 0..1 | MAY |  | [86-28200](#C_86-28200) | UNK |
| entryRelationship | 1..1 | SHALL |  | [86-21400](#C_86-21400) |  |
| @typeCode | 1..1 | SHALL |  | [86-21401](#C_86-21401) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| @inversionInd | 1..1 | SHALL |  | [86-21402](#C_86-21402) | true |
| encounter | 1..1 | SHALL |  | [86-21403](#C_86-21403) | [Specimen Collection Encounter (LIO) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.164](#E_Specimen_Collection_Encounter_LIO) |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21389).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21390).
3. SHALL contain exactly one [1..1] templateId (CONF:86-21982) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.165" (CONF:86-21983).
4. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21391).
   1. This effectiveTime SHALL contain exactly one [1..1] @value (CONF:86-21392).
5. SHALL contain exactly one [1..1] participant (CONF:86-21393).
   1. This participant SHALL contain exactly one [1..1] @typeCode="PRD" Product (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-21394).
   2. This participant SHALL contain exactly one [1..1] participantRole (CONF:86-21395).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SPEC" Specimen (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:86-21396).
      2. This participantRole SHALL contain exactly one [1..1] playingEntity (CONF:86-21397).

To record a specimen type, use @code. To record that the specimen type is not known, set the value of @nullFlavor to UNK.

* + - 1. This playingEntity SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNSpecimenTypeCode](#NHSNSpecimenTypeCode) urn:oid:2.16.840.1.114222.4.11.3249 DYNAMIC (CONF:86-21398).
         1. This code MAY contain zero or one [0..1] @nullFlavor="UNK" (CONF:86-28200).

1. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21400).
   1. This entryRelationship SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21401).
   2. This entryRelationship SHALL contain exactly one [1..1] @inversionInd="true" (CONF:86-21402).
   3. This entryRelationship SHALL contain exactly one [1..1] [Specimen Collection Encounter (LIO)](#E_Specimen_Collection_Encounter_LIO) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.164) (CONF:86-21403).

Figure 169: Specimen Collection Procedure (LIO) Example

<!-- Specimen collection procedure contains specimen collection encounter -->

<procedure classCode="PROC" moodCode="EVN">

<!-- Specimen Collection Procedure (LIO) -->

<templateId root="2.16.840.1.113883.10.20.5.6.165" />

<!-- Date specimen collected -->

<effectiveTime value="20090121" />

<!-- Specimen type -->

<participant typeCode="PRD">

<participantRole classCode="SPEC">

<playingEntity>

<code codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="122571007"

displayName="Pericardial fluid"/>

</playingEntity>

</participantRole>

</participant>

<entryRelationship typeCode="COMP" inversionInd="true">

<!-- Specimen Collection Encounter (LIO) -->

<encounter classCode="ENC" moodCode="EVN">

<!-- C-CDA Encounter Activities templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.49" />

<!-- HAI Specimen Collection Encounter (LIO) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.164" />

<id nullFlavor="NA" />

<effectiveTime>

<low value="20090117"/>

</effectiveTime>

</encounter>

</entryRelationship>

</procedure>

Spinal Fusion Level Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.166 (closed)]

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Table 448: Spinal Fusion Level Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Details Clinical Statement in a Procedure Report (V2)](#Procedure_Details_Clinical_Statement_in) (optional) |  |

This observation records the spinal level of a spinal fusion procedure.

Table 449: Spinal Fusion Level Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.166) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21543](#C_86-21543) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21544](#C_86-21544) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28283](#C_86-28283) |  |
| @root | 1..1 | SHALL |  | [86-28284](#C_86-28284) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21553](#C_86-21553) |  |
| @root | 1..1 | SHALL |  | [86-21554](#C_86-21554) | 2.16.840.1.113883.10.20.5.6.166 |
| id | 1..1 | SHALL |  | [86-21555](#C_86-21555) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22775](#C_86-22775) | NA |
| code | 1..1 | SHALL |  | [86-21545](#C_86-21545) |  |
| @code | 1..1 | SHALL |  | [86-21546](#C_86-21546) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28390](#C_86-28390) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21547](#C_86-21547) |  |
| @code | 1..1 | SHALL |  | [86-21548](#C_86-21548) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21549](#C_86-21549) | urn:oid:2.16.840.1.113883.13.11 (NHSNSpinalFusionLevelCode) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21543).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21544).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28283) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28284).
5. SHALL contain exactly one [1..1] templateId (CONF:86-21553) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.166" (CONF:86-21554).
6. SHALL contain exactly one [1..1] id (CONF:86-21555).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22775).
7. SHALL contain exactly one [1..1] code (CONF:86-21545).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21546).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28390).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-21547).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21548).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNSpinalFusionLevelCode](#NHSNSpinalFusionLevelCode) urn:oid:2.16.840.1.113883.13.11 DYNAMIC (CONF:86-21549).

Table 450: NHSNSpinalFusionLevelCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSpinalFusionLevelCode urn:oid:2.16.840.1.113883.13.11  (Clinical Focus: NHSN surveillance reporting: surgical site infections),(Data Element Scope: A coded observation value describing the spinal fusion level.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.11/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1101-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Atlas-axis |
| 1102-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Atlas-axis/Cervical |
| 1103-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Cervical |
| 1104-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Cervical/Dorsal/Dorsolumbar |
| 1105-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Dorsal/Dorsolumbar |
| 1106-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Lumbar/Lumbosacral |

Figure 170: Spinal Fusion Level Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Spinal Fusion Level Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.166"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1101-5"

displayName="atlas-axis (C1-C2 only)"/>

</observation>

SSI Detected Using Toolkit Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.206 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2, DSTU 1 - US Realm

Table 451: SSI Detected Using Toolkit Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) (required) |  |

This template indicates that a surgical site infection was identified through the use of discharge diagnosis or procedure codes as described in the NHSN reporting protocol. It is based on the C-CDA Problem Observation template.

When the surgical site infection was identified through the use of discharge diagnosis or procedure codes, set the value of @negationInd to false. When the surgical site infection was not identified through the use of discharge diagnosis or procedure codes, set the value of @negationInd to true. If this observation is not required per the NHSN protocol, then set the value of @nullFlavor to "NA".

Table 452: SSI Detected Using Toolkit Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.206) | | | | | |
| @nullFlavor | 0..1 | MAY |  | [1101-30277](#C_1101-30277) | NA |
| @classCode | 1..1 | SHALL |  | [1101-30278](#C_1101-30278) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1101-30279](#C_1101-30279) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 0..1 | MAY |  | [1101-30280](#C_1101-30280) |  |
| templateId | 1..1 | SHALL |  | [1101-30282](#C_1101-30282) |  |
| @root | 1..1 | SHALL |  | [1101-30283](#C_1101-30283) | 2.16.840.1.113883.10.20.5.6.206 |
| id | 1..1 | SHALL |  | [1101-30284](#C_1101-30284) |  |
| @nullFlavor | 1..1 | SHALL |  | [1101-30285](#C_1101-30285) | NA |
| code | 1..1 | SHALL |  | [1101-30286](#C_1101-30286) |  |
| @code | 1..1 | SHALL |  | [1101-30287](#C_1101-30287) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [1101-30288](#C_1101-30288) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [1101-30289](#C_1101-30289) |  |
| @code | 1..1 | SHALL |  | [1101-30290](#C_1101-30290) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1101-30291](#C_1101-30291) |  |
| @code | 1..1 | SHALL |  | [1101-30292](#C_1101-30292) | 1238-5 |
| @codeSystem | 1..1 | SHALL |  | [1101-30293](#C_1101-30293) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |

If this observation is not required per the NHSN protocol then set the value of @nullFlavor to NA.

1. MAY contain zero or one [0..1] @nullFlavor="NA" (CONF:1101-30277).
   1. If the value of @nullFlavor is set to NA then the value of @negationInd SHALL NOT be set (CONF:1101-30298).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1101-30278).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1101-30279).
4. MAY contain zero or one [0..1] @negationInd (CONF:1101-30280).
   1. If the surgical site infection was identified through the use of discharge diagnosis or procedure codes, the value of @negationInd SHALL be false. If the surgical site infection was not identified through the use of discharge diagnosis or procedure codes, the value of @negationInd SHALL be true. If the value of @negationInd is set then the value of @nullFlavor SHALL NOT be set (CONF:1101-30281).
5. SHALL contain exactly one [1..1] templateId (CONF:1101-30282) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.206" (CONF:1101-30283).
6. SHALL contain exactly one [1..1] id (CONF:1101-30284).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:1101-30285).
7. SHALL contain exactly one [1..1] code (CONF:1101-30286).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" (CONF:1101-30287).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:1101-30288).
8. SHALL contain exactly one [1..1] statusCode (CONF:1101-30289).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1101-30290).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1101-30291).
   1. This value SHALL contain exactly one [1..1] @code="1238-5" SSI detected using the NHSN ICD-Code based Admit and Readmit SSI Surveillance Toolkit (CONF:1101-30292).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1101-30293).

Figure 171: SSI Detected Using Toolkit Observation Example

<!--

If the surgical site infection was identified through the use

of discharge diagnosis or procedure codes, the value of

@negationInd SHALL be false.

If the surgical site infection was not identified through the

use of discharge diagnosis or procedure codes,

the value of @negationInd SHALL be true.

If the value of @negationInd is set then the value of

@nullFlavor SHALL NOT be set.

If this observation is not required per the NHSN protocol

set the value of nullFlavor to NA as follows:

<observation classCode="OBS" moodCode="EVN" nullFlavor="NA">

-->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- SSI Detected Using Toolkit Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.206"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD" code="1238-5"

displayName="SSI detected using the NHSN ICD-Code based Admit

and Readmit SSI Surveillance Toolkit"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"/>

</observation>

SSI Detection Method

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 453: SSI Detection Method Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection-Type Observation in an OPC SSI Event](#E_InfectionType_Observation_in_an_OPC_S) (required) |  |

This template indicates that a surgical site infection event was identified by the ASC facility where the procedure was originally performed through the use of Active/Passive surveillance methods. The type of method used is recorded in code and the specific method is recorded in value.

Table 454: SSI Detection Method Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-30794](#C_4395-30794) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [4395-30795](#C_4395-30795) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4395-30788](#C_4395-30788) |  |
| @root | 1..1 | SHALL |  | [4395-30797](#C_4395-30797) | 2.16.840.1.113883.10.20.5.6.261 |
| @extension | 1..1 | SHALL |  | [4395-30804](#C_4395-30804) | 2019-04-01 |
| id | 1..1 | SHALL |  | [4395-30805](#C_4395-30805) |  |
| @nullFlavor | 1..1 | SHALL |  | [4395-30806](#C_4395-30806) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = NA |
| code | 1..1 | SHALL |  | [4395-30846](#C_4395-30846) |  |
| @code | 1..1 | SHALL |  | [4395-30847](#C_4395-30847) | urn:oid:2.16.840.1.113883.10.20.5.9.31 (NHSNSSIDetectionMethodType) |
| statusCode | 1..1 | SHALL |  | [4395-30791](#C_4395-30791) |  |
| @code | 1..1 | SHALL |  | [4395-30801](#C_4395-30801) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [4395-30848](#C_4395-30848) |  |
| @code | 1..1 | SHALL |  | [4395-30849](#C_4395-30849) | urn:oid:2.16.840.1.113883.10.20.5.9.29 (NHSNSSIDetectionMethod) |

1. Conforms to Procedure Activity Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.13).
2. SHALL contain exactly one [1..1] @classCode="OBS" (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:4395-30794).
3. SHALL contain exactly one [1..1] @moodCode="EVN" (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:4395-30795).
4. SHALL contain exactly one [1..1] templateId (CONF:4395-30788) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.261" (CONF:4395-30797).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30804).
5. SHALL contain exactly one [1..1] id (CONF:4395-30805).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:4395-30806).

The surveillance method type (Active/Passive)

1. SHALL contain exactly one [1..1] code (CONF:4395-30846).
   1. This code SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSNSSIDetectionMethodType](#NHSNSSIDetectionMethodType) urn:oid:2.16.840.1.113883.10.20.5.9.31 DYNAMIC (CONF:4395-30847).
2. SHALL contain exactly one [1..1] statusCode (CONF:4395-30791).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:4395-30801).
3. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:4395-30848).

The code specifying the specific SSI Detection method used to identify the SSI event

* 1. This value SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSNSSIDetectionMethod](#NHSNSSIDetectionMethod) urn:oid:2.16.840.1.113883.10.20.5.9.29 DYNAMIC (CONF:4395-30849).

Table 455: NHSNSSIDetectionMethodType

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSSIDetectionMethodType urn:oid:2.16.840.1.113883.10.20.5.9.31  (Clinical Focus: NHSN surveillance reporting: surgical site infections),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.31/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1309-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Active surgical site infection (SSI) detection method |
| 1312-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Passive surgical site infection (SSI) detection method |

Table 456: NHSNSSIDetectionMethod

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSSIDetectionMethod urn:oid:2.16.840.1.113883.10.20.5.9.29  (Clinical Focus: NHSN surveillance reporting: surgical site infections),(Data Element Scope: A coded observation value describing how the facility performed the procedure detected the SSI.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.29/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1321-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Review of patient's medical record |
| 1322-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Post-discharge surgeon survey |
| 1323-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Post-discharge patient letter |
| 1324-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Post-discharge patient phone call |
| 1325-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Cooperative infection prevention process between facilities |
| 1326-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Patient or caregiver contacts facility to report |
| 1327-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Patient returns to outpatient facility for follow-up |
| 1328-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Surgeon contacts facility to report |
| 1329-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Report from another facility (inpatient, health department, emergency department, etc.) |

Figure 172: SSI Detection Method Example

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3D4] SSI Detection Method -->

<templateId root="2.16.840.1.113883.10.20.5.6.261" extension="2019-04-01" />

<id nullFlavor="NA" />

<code codeSystem="2.16.840.1.113883.6.277"

code="1309-4"

codeSystemName="cdcNHSN"

displayName="Active SSI Detection Method" />

<statusCode code="completed" />

<value xsi:type="CD" code="1321-9"

displayName="Review of patient's medical record"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN" />

</observation>

Sterile Barriers Applied Clinical Statement

[procedure: identifier urn:oid:2.16.840.1.113883.10.20.5.6.167 (closed)]

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Table 457: Sterile Barriers Applied Clinical Statement Contexts

| Contained By: | Contains: |
| --- | --- |
| [Central-Line Insertion Preparation Organizer (V2)](#E_CentralLine_Insertion_Preparation_Org) (required) |  |

This clinical statement records sterile barriers applied. It is used in the first, preparatory step in the central-line insertion practice.

Table 458: Sterile Barriers Applied Clinical Statement Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.167) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21531](#C_86-21531) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [86-21532](#C_86-21532) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21533](#C_86-21533) | false |
| templateId | 1..1 | SHALL |  | [86-28285](#C_86-28285) |  |
| @root | 1..1 | SHALL |  | [86-28286](#C_86-28286) | 2.16.840.1.113883.10.20.22.4.14 |
| templateId | 1..1 | SHALL |  | [86-21558](#C_86-21558) |  |
| @root | 1..1 | SHALL |  | [86-21559](#C_86-21559) | 2.16.840.1.113883.10.20.5.6.167 |
| id | 1..1 | SHALL |  | [86-21560](#C_86-21560) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22772](#C_86-22772) |  |
| code | 1..1 | SHALL |  | [86-21534](#C_86-21534) |  |
| @code | 1..1 | SHALL |  | [86-21535](#C_86-21535) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 370822003 |
| statusCode | 1..1 | SHALL |  | [86-21561](#C_86-21561) |  |
| @code | 1..1 | SHALL |  | [86-21562](#C_86-21562) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| participant | 0..\* | MAY |  | [86-21536](#C_86-21536) |  |
| @typeCode | 1..1 | SHALL |  | [86-21537](#C_86-21537) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [86-21538](#C_86-21538) |  |
| @classCode | 1..1 | SHALL |  | [86-21539](#C_86-21539) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [86-21540](#C_86-21540) |  |
| code | 1..1 | SHALL |  | [86-21541](#C_86-21541) | urn:oid:2.16.840.1.114222.4.11.3184 (NHSNSterileBarrierCode) |

1. Conforms to Procedure Activity Procedure template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.14).
2. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21531).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21532).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-21533).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28285) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.14" (CONF:86-28286).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21558) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.167" (CONF:86-21559).
7. SHALL contain exactly one [1..1] id (CONF:86-21560).
   1. This id SHALL contain exactly one [1..1] @nullFlavor (CONF:86-22772).
8. SHALL contain exactly one [1..1] code (CONF:86-21534).
   1. This code SHALL contain exactly one [1..1] @code="370822003" Use of sterile technique (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-21535).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21561).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-21562).
10. MAY contain zero or more [0..\*] participant (CONF:86-21536).
    1. The participant, if present, SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-21537).
    2. The participant, if present, SHALL contain exactly one [1..1] participantRole (CONF:86-21538).
       1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110 STATIC) (CONF:86-21539).
       2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:86-21540).
          1. This playingDevice SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNSterileBarrierCode](#NHSNSterileBarrierCode) urn:oid:2.16.840.1.114222.4.11.3184 DYNAMIC (CONF:86-21541).

Table 459: NHSNSterileBarrierCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSterileBarrierCode urn:oid:2.16.840.1.114222.4.11.3184  (Clinical Focus: NHSN surveillance reporting: sterile barriers used during catheter insertion for Central Line Insertion Practices (CLIP) adherence monitoring),(Data Element Scope: A code describing the type of sterile barrier used.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3184/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 6110-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Mask |
| 6111-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Sterile gown |
| 6112-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Large sterile drape |
| 6113-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Sterile gloves |
| 6122-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Cap |

Figure 173: Sterile Barriers Applied Clinical Statement Example

<procedure moodCode="EVN" classCode="PROC" negationInd="false">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Sterile Barriers Applied Clinical Statement templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.167" />

<id nullFlavor="NA" />

<code code="370822003"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Use of Sterile Technique" />

<statusCode code="completed" />

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code="6110-1"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Mask/Eye shield" />

</playingDevice>

</participantRole>

</participant>

...

</procedure>

Summary Data Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.185 (closed)]

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Table 460: Summary Data Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter](#E_Summary_Encounter) (required)  [Summary Encounter (NICU)](#E_Summary_Encounter_NICU) (required)  [Summary Data Observation (POM)](#E_Summary_Data_Observation_POM) (optional)  [Summary Data Observation (VAT)](#E_Summary_Data_Observation_VAT) (optional)  [Summary Encounter (HP-FLU)](#E_Summary_Encounter_HPFLU) (required) |  |

The Summary Data Observation is used in some population-summary reports.

The documentationOf/serviceEvent/code in the header identifies the intended content of the report. For example, cdcNHSN code 1879-6 indicates that the data content is "Summary data reporting catheter and ventilator use in an ICU". NHSN protocol specifies which data to report for each type of content. The data required by NHSN for most types of content, at time of publication, are shown in the tables below.

The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

Most Summary Data Observations are a simple code-value pair. The code element identifies the datum being reported, and the value element records a number of days, patients, episodes, or events.

Table 461: Summary Data Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22407](#C_86-22407) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22408](#C_86-22408) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22409](#C_86-22409) |  |
| @root | 1..1 | SHALL |  | [86-22410](#C_86-22410) | 2.16.840.1.113883.10.20.5.6.185 |
| code | 1..1 | SHALL |  | [86-22411](#C_86-22411) |  |
| statusCode | 1..1 | SHALL |  | [86-22412](#C_86-22412) |  |
| @code | 1..1 | SHALL |  | [86-28189](#C_86-28189) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [86-22413](#C_86-22413) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:86-22407).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:86-22408).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22409) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.185" (CONF:86-22410).
4. SHALL contain exactly one [1..1] code (CONF:86-22411).
   1. If this is ICU Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Intensive Care Unit (ICU) Summary Data table below (CONF:86-28193).
   2. If this is NICU Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Neonatal Intensive Care Unit (NICU) Summary Data table below (CONF:86-28194).
   3. If this is SCA Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Specialty Care Area (SCA) Summary Data table below (CONF:86-28195).
   4. If this is VAT (Dialysis) Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Vascular Access Type (Dialysis) Summary Data table below (CONF:86-28196).
   5. If this is POM Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Prevention Process and Outcome Measures (POM) Summary Data table below (CONF:86-28199).
   6. If this is OPC Same Day Outcome Measures Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for OPC Same Day Outcome Measures Summary Data table below (CONF:86-28407).
   7. If this is HP-FLU Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Healthcare Personnel Influenza Vaccination Summary Data table below (CONF:86-28405).
5. SHALL contain exactly one [1..1] statusCode (CONF:86-22412).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28189).
6. SHALL contain exactly one [1..1] value (CONF:86-22413).
   1. If the observation reports a number of days, the value of value/xsi:type SHALL be PQ and the value of value/@unit SHALL be d. If the observation reports a number of patients, episodes or events the value of value/@xsi:type SHALL be INT. If the value is a code, the value of value/@xsi:type SHALL be CD (CONF:86-26183).

Table 462: Codes for Intensive Care Unit (ICU) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Intensive Care Unit (ICU) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.12  (Clinical Focus: NHSN surveillance reporting: denominators for intensive care unit (ICU)),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.12/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1826-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of new episodes of mechanical ventilation (EMV) |
| 1833-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of central line days |
| 1834-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of airway pressure release ventilation (APRV) days |
| 1851-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient days |
| 1852-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of ventilator days |
| 1853-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of urinary catheter days |

Table 463: Codes for Neonatal Intensive Care Unit (NICU) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Neonatal Intensive Care Unit (NICU) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.13  (Clinical Focus: NHSN surveillance reporting: denominators for neonatal intensive care unit (NICU)),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.13/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1333-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of episodes of mechanical ventilation (EMV) days |
| 1851-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient days |
| 1852-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of ventilator days |
| 1853-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of urinary catheter days |
| 1854-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of central line days including umbilical catheter |

Table 464: Codes for Specialty Care Area (SCA) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Specialty Care Area (SCA) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.16  (Clinical Focus: NHSN surveillance reporting: denominators for specialty care area (SCA) and oncology (ONC)),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.16/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1826-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of new episodes of mechanical ventilation (EMV) |
| 1834-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of airway pressure release ventilation (APRV) days |
| 1851-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient days |
| 1852-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of ventilator days |
| 1853-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of urinary catheter days |
| 3305-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of temporary central line days |
| 3306-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of permanent central line days |

Table 465: Codes for Vascular Access Type (Dialysis) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Vascular Access Type (Dialysis) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.17  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for dialysis),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.17/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2310-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of chronic hemodialysis patients: fistula |
| 2311-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of fistula patients who undergo buttonhole cannulation |
| 2312-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of chronic hemodialysis patients: graft |
| 2313-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of chronic hemodialysis patients: tunneled central line |
| 2314-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of chronic hemodialysis patients: non-tunneled central line |
| 2315-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of chronic hemodialysis patients: other access device |
| 2316-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Summary data reporting vascular access types for chronic hemodialysis patients |

Table 466: Codes for Prevention Process and Outcome Measures (POM) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Prevention Process and Outcome Measures (POM) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.15  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for prevention process and outcome measures),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.15/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1827-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient days adjusted for MDRO reporting (for inpatient location) |
| 1828-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of admissions adjusted for MDRO reporting (for inpatient location) |
| 1830-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient days adjusted for C. difficile reporting (for inpatient location) |
| 1864-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of observations in which hand hygiene was indicated |
| 1865-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of observations in which hand hygiene was performed |
| 1866-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of observations in which the use of gown and gloves was indicated |
| 1867-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of observations in which gown and gloves were used |
| 1870-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Timing of active surveillance testing (AST) |
| 1871-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Active surveillance testing (AST) eligible patients |
| 1872-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patients eligible for monitoring at admission/transfer in |
| ... | | | |

Table 467: Codes for Healthcare Personnel Influenza Vaccination (HP FLU) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Healthcare Personnel Influenza Vaccination (HP FLU) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.10  (Clinical Focus: NHSN surveillance reporting: numbers of healthcare personnel in categories tracked for an influenza season),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.10/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 86552-7 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Staff [#] who worked at facility at least one day from October 1 through March 31 |
| 86553-5 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Staff [#] who received influenza vaccination at the facility |
| 86554-3 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Staff [#] who provided documentation of influenza vaccine receipt |
| 86555-0 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Staff [#] who had a medical contraindication to the influenza vaccine |
| 86556-8 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Staff [#] who declined influenza vaccine |
| 86557-6 | LOINC | urn:oid:2.16.840.1.113883.6.1 | Staff [#] with unknown influenza vaccination status |

Table 468: Codes for Outpatient Procedure Component Same Day Outcome Measures Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Outpatient Procedure Component Same Day Outcome Measures Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.32  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for Outpatient Procedure Component Same Day Outcome Measures),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.32/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1890-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of total facility encounters (for outpatient location) |

Figure 174: Summary Data Observation Example—NICU

<!-- second participant: a subgroup of population reported on -->

<participant typeCode="SBJ" contextControlCode="OP">

<participantRole classCode="PRS">

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3300-1"

displayName="The subset of inpatients whose

birth weight is under 750gm"/>

</participantRole>

</participant>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185"/>

<code code="1853-1"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Number of urinary catheter days" />

<statusCode code="completed" />

<value unit="d"

value="23"

xsi:type="PQ" />

</observation>

</entryRelationship>

Figure 175: Summary Data Observation Example—SCA

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3306-8"

displayName="Number of permanent central line days"/>

<statusCode code="completed"/>

<value xsi:type="PQ"

unit="d"

value="100"/>

</observation>

Figure 176: Summary Data Observation Example—ICU

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1851-5"

displayName="Number of Patient Days"/>

<statusCode code="completed"/>

<value xsi:type="PQ"

unit="d"

value="100"/>

</observation>

Figure 177: Summary Data Observation Example—HP-FLU

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

<code codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC"

code="86553-5"

displayName="Number of HCP who received an influenza

vaccination at this healthcare facility since

influenza vaccine became available this

season" />

<statusCode code="completed" />

<value xsi:type="INT" value="55" />

</observation>

Summary Data Observation (AU/AR)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2 - US Realm

Table 469: Summary Data Observation (AU/AR) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter Patient Presence (AUP) (V2)](#E_Summary_Encounter_Patient_Pres_AU) (required)  [Summary Encounter (AUP) (V2)](#E_Summary_Encounter_AUP_V2) (required)  [Summary Encounter (ARO) (V3)](#E_Summary_Encounter_ARO_V3) (required) |  |

This template specializes the Summary Data Observation for the AU/AR population-summary reports.

The documentationOf/serviceEvent/code in the header identifies the intended content of the report. For example, cdcNHSN code 1887-9 indicates that the data content is "Summary data reporting Antimicrobial Usage". NHSN protocol specifies which data to report for each type of content. The data required by NHSN for each type of content, at time of publication, are shown in the tables below.

The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

Most Summary Data Observations are a simple code-value pair. The code element identifies the datum being reported, and the value element records a number of days, patients, episodes, or events.

Table 470: Summary Data Observation (AU/AR) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1181-30549](#C_1181-30549) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1181-30550](#C_1181-30550) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1181-30545](#C_1181-30545) |  |
| @root | 1..1 | SHALL |  | [1181-30551](#C_1181-30551) | 2.16.840.1.113883.10.20.5.6.229 |
| @extension | 1..1 | SHALL |  | [1181-30561](#C_1181-30561) | 2015-04-01 |
| code | 1..1 | SHALL |  | [1181-30546](#C_1181-30546) |  |
| statusCode | 1..1 | SHALL |  | [1181-30547](#C_1181-30547) |  |
| @code | 1..1 | SHALL |  | [1181-30559](#C_1181-30559) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [1181-30548](#C_1181-30548) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1181-30549).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1181-30550).
3. SHALL contain exactly one [1..1] templateId (CONF:1181-30545) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.229" (CONF:1181-30551).
   2. SHALL contain exactly one [1..1] @extension="2015-04-01" (CONF:1181-30561).
4. SHALL contain exactly one [1..1] code (CONF:1181-30546).
   1. If this is ARO Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Antimicrobial Resistance Option (ARO) Summary Data table below (CONF:1181-30552).
   2. If this is AUP Summary Data, NHSN protocol requires, at the time of publication, the data in the Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data table below (CONF:1181-30557).
5. SHALL contain exactly one [1..1] statusCode (CONF:1181-30547).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1181-30559).
6. SHALL contain exactly one [1..1] value (CONF:1181-30548).
   1. If the observation reports a number of days, the value of value/xsi:type SHALL be PQ and the value of value/@unit SHALL be d. If the observation reports a number of patients, episodes or events the value of value/@xsi:type SHALL be INT. If the value is a code, the value of value/@xsi:type SHALL be CD (CONF:1181-30560).

Table 471: Codes for Antimicrobial Resistance Option (ARO) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Antimicrobial Resistance Option (ARO) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.8  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for antimicrobial resistance.),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.8/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1851-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient days |
| 1862-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of admissions |
| 2409-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of blood cultures performed |
| 1863-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of encounters |

Table 472: Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.9  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for antimicrobial usage),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.9/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1862-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of admissions |
| 2524-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of therapy days |
| 2525-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient-present days |

Figure 178: Summary Data Observation (AU/AR) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (AU/AR) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.229"

extension="2015-04-01"/>

<code code="2409-1"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Number of blood cultures performed"/>

<statusCode code="completed"/>

<value xsi:type="INT" value="24" />

</observation>

Summary Data Observation (AUP)

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.194 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 473: Summary Data Observation (AUP) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter (AUP) (V2)](#E_Summary_Encounter_AUP_V2) (required) |  |

This template specializes the Summary Data Observation for an Antimicrobial Use (AUP) Summary Report.  
The Summary Data Observation (AUP) records data for the antimicrobial stratified by route of administration. (See the NHSN protocol for how the values are calculated.) If a value is not applicable for a combination of drug and route, the value of @nullFlavor must be "NA".

Table 474: Summary Data Observation (AUP) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.194) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22910](#C_86-22910) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22911](#C_86-22911) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22912](#C_86-22912) |  |
| @root | 1..1 | SHALL |  | [86-22913](#C_86-22913) | 2.16.840.1.113883.10.20.5.6.194 |
| code | 1..1 | SHALL |  | [86-22914](#C_86-22914) |  |
| statusCode | 1..1 | SHALL |  | [86-22915](#C_86-22915) |  |
| @code | 1..1 | SHALL |  | [86-28111](#C_86-28111) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [86-22916](#C_86-22916) |  |
| methodCode | 1..1 | SHALL |  | [86-23044](#C_86-23044) | urn:oid:2.16.840.1.114222.4.11.3361 (NHSNRouteOfAdministrationAURPCode) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22910).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22911).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22912) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.194" (CONF:86-22913).
4. SHALL contain exactly one [1..1] code (CONF:86-22914).
5. SHALL contain exactly one [1..1] statusCode (CONF:86-22915).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28111).
6. SHALL contain exactly one [1..1] value (CONF:86-22916).
7. SHALL contain exactly one [1..1] methodCode, which SHALL be selected from ValueSet [NHSNRouteOfAdministrationAURPCode](#NHSNRouteOfAdministrationAURPCode) urn:oid:2.16.840.1.114222.4.11.3361 DYNAMIC (CONF:86-23044).
8. If the observation reports a number of days, the value of value/xsi:type SHALL be PQ and the value of value/@unit SHALL be d. If the observation reports a number of patients, the value of value/@xsi:type SHALL be INT. If the value is a code, the value of value/@xsi:type SHALL be CD (CONF:86-22917).

Table 475: NHSNRouteOfAdministrationAURPCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNRouteOfAdministrationAURPCode urn:oid:2.16.840.1.114222.4.11.3361  (Clinical Focus: NHSN surveillance reporting: Antimicrobial Use summary, route by which antimicrobial was administered),(Data Element Scope: A method code describing the route of administration of the antimicrobial.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3361/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 447694001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Respiratory tract route (qualifier value) |
| 447964005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Digestive tract route (qualifier value) |
| 47625008 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Intravenous route (qualifier value) |
| 78421000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Intramuscular route (qualifier value) |

Figure 179: Summary Data Observation (AUP) Example

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.194" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2524-7"

displayName="Number of Therapy Days" />

<statusCode code="completed" />

<value xsi:type="PQ" unit="d" value="3" />

<methodCode code="447694001" codeSystemName="SNOMED CT"

codeSystem="2.16.840.1.113883.6.96"

displayName="Respiratory tract route"/>

</observation>

Summary Data Observation (HV)

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, DSTU 1 - US Realm

Table 476: Summary Data Observation (HV) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) (required) |  |

This template specializes the Summary Data Observation for an HAI Hemovigilance (HV) Summary Report.

The documentationOf/serviceEvent/code in the header identifies the intended content of the report. NHSN protocol specifies which data to report for each type of content. The data required by NHSN for each type of content, at time of publication, are shown in the tables below.

The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

Most Summary Data Observations are a simple code-value pair. The code element identifies the datum being reported, and the value element records a number of days, patients, episodes, or events.

Table 477: Summary Data Observation (HV) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1202-30675](#C_1202-30675) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1202-30676](#C_1202-30676) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1202-30671](#C_1202-30671) |  |
| @root | 1..1 | SHALL |  | [1202-30677](#C_1202-30677) | 2.16.840.1.113883.10.20.5.6.235 |
| @extension | 1..1 | SHALL |  | [1202-30684](#C_1202-30684) | 2015-10-01 |
| code | 1..1 | SHALL |  | [1202-30672](#C_1202-30672) | urn:oid:2.16.840.1.113883.10.20.5.9.11 (Codes for Hemovigilance (HV) Summary Data) |
| statusCode | 1..1 | SHALL |  | [1202-30673](#C_1202-30673) |  |
| @code | 1..1 | SHALL |  | [1202-30683](#C_1202-30683) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | INT | [1202-30674](#C_1202-30674) |  |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1202-30675).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1202-30676).
3. SHALL contain exactly one [1..1] templateId (CONF:1202-30671) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.235" (CONF:1202-30677).
   2. SHALL contain exactly one [1..1] @extension="2015-10-01" (CONF:1202-30684).
4. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Codes for Hemovigilance (HV) Summary Data](#Codes_for_Hemovigilance_HV_Summary_Data) urn:oid:2.16.840.1.113883.10.20.5.9.11 DYNAMIC (CONF:1202-30672).
5. SHALL contain exactly one [1..1] statusCode (CONF:1202-30673).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1202-30683).
6. SHALL contain exactly one [1..1] value with @xsi:type="INT" (CONF:1202-30674).

Table 478: Codes for Hemovigilance (HV) Summary Data

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: Codes for Hemovigilance (HV) Summary Data urn:oid:2.16.840.1.113883.10.20.5.9.11  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for hemovigilance),(Data Element Scope: Code identifying the type of observation.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.11/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 3436-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Number of patient samples collected for type and screen or crossmatch |
| 3538-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Total crossmatch procedures |
| 3539-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Total patients transfused |

Figure 180: Summary Data Observation (HV) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (HV) -->

<templateId root="2.16.840.1.113883.10.20.5.6.235"

extension="2015-10-01" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3539-4"

displayName="Total patients transfused" />

<statusCode code="completed" />

<value xsi:type="INT" value="74" />

</observation>

Summary Data Observation (POM)

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.192 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 479: Summary Data Observation (POM) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter (POM)](#E_Summary_Encounter_POM) (required) | [Summary Data Observation](#E_Summary_Data_Observation) (optional) |

This template extends the Summary Data Observation for a POM Report.  
When recording AST outcome measures, Summary Data Observation (POM)s record the organism monitored; the data required by NHSN protocol are recorded within those observations.

Table 480: Summary Data Observation (POM) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.192) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22855](#C_86-22855) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22856](#C_86-22856) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22857](#C_86-22857) |  |
| @root | 1..1 | SHALL |  | [86-22858](#C_86-22858) | 2.16.840.1.113883.10.20.5.6.192 |
| code | 1..1 | SHALL |  | [86-22859](#C_86-22859) |  |
| statusCode | 1..1 | SHALL |  | [86-22860](#C_86-22860) |  |
| @code | 1..1 | SHALL |  | [86-28112](#C_86-28112) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [86-22861](#C_86-22861) |  |
| entryRelationship | 0..\* | MAY |  | [86-23372](#C_86-23372) |  |
| observation | 1..1 | SHALL |  | [86-23373](#C_86-23373) | [Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185](#E_Summary_Data_Observation) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22855).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22856).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22857) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.192" (CONF:86-22858).
4. SHALL contain exactly one [1..1] code (CONF:86-22859).
5. SHALL contain exactly one [1..1] statusCode (CONF:86-22860).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28112).
6. SHALL contain exactly one [1..1] value (CONF:86-22861).
   1. To record which organism was monitored (code/@code 3193-0 AST Organism Monitored), the value of value/@code SHALL be selected from ValueSet NHSNOrganismASTCode 2.16.840.1.114222.4.11.3283 DYNAMIC (CONF:86-22862).
   2. To record the timing of monitoring (code/@code 1870-5 Timing), the value of value/@code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.3247 NHSNTimingCode DYNAMIC (CONF:86-22863).
   3. To record eligibility criteria for monitoring (code/@code 1871-3 Eligibility), the value of value/@code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.3248 NHSNEligibilityCode DYNAMIC (CONF:86-22864).
   4. If the observation reports a number of days, the value of value/xsi:type SHALL be PQ and the value of value/@unit SHALL be d. If the observation reports a number of patients, the value of value/@xsi:type SHALL be INT. If the value is a code, the value of value/@xsi:type SHALL be CD (CONF:86-23371).
7. MAY contain zero or more [0..\*] entryRelationship (CONF:86-23372).
   1. The entryRelationship, if present, SHALL contain exactly one [1..1] [Summary Data Observation](#E_Summary_Data_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-23373).
   2. To record which organism was monitored (code/@code 3193-0 AST Organism Monitored) this observation SHALL contain, as entryRelationships where the value of @typeCode is COMP, Summary Data Observations recording the data collected for that class. The specific data required are specified by the NHSN protocol (CONF:86-23374).

Table 481: NHSNOrganismASTCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNOrganismASTCode urn:oid:2.16.840.1.114222.4.11.3283  (Clinical Focus: Organisms monitored for adherence to active surveillance testing (AST) for NHSN reporting purposes),(Data Element Scope: A coded observation value describing the AST organism monitored.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3283/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 113727004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Vancomycin resistant Enterococcus (organism) |
| 115329001 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Methicillin resistant Staphylococcus aureus (organism) |

Table 482: NHSNTimingCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNTimingCode urn:oid:2.16.840.1.114222.4.11.3247  (Clinical Focus: NHSN surveillance reporting: active surveillance culture/testing),(Data Element Scope: A coded observation value describing the timing of the organism monitoring.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3247/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2201-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | On admission only |
| 2202-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | On admission and on discharge/transfer |

Table 483: NHSNEligibilityCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNEligibilityCode urn:oid:2.16.840.1.114222.4.11.3248  (Clinical Focus: NHSN surveillance reporting: used to express the category of patients eligible for active surveillance culture/testing),(Data Element Scope: A code identify the type of encounter.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3248/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2301-0 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | All patients |
| 2302-8 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Only patients with no prior documentation of colonization or infection |

Figure 181: Summary Data Observation (POM) Example

<!-- example showing AST for MRSA -->

<!-- The organism monitored was MRSA.

Within this observation are child observations

that record additional information about the monitoring

and the data reported by the monitoring. -->

<!-- AST Organism Monitored -->

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (POM) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.192"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3193-0

displayName="AST Organism Monitored"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="115329001"

displayName="MRSA"/>

<!-- The observations below are within

the observation of what organism was monitored -->

<!-- Timing of monitoring -->

<entryRelationship>

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185"/>

...

</observation>

</entryRelationship>

<!-- Eligibility for monitoring -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185"/>

...

</observation>

</entryRelationship>

<!-- Number eligible on admission-->

...

<!-- Number performed on admission-->

...

<!-- Number eligible on discharge/transfer -->

...

<!-- Number performed on discharge/transfer-->

...

<!-- Number prevalent cases AST/clinical positive-->

...

<!-- Number prevalent cases previously known-->

...

<!-- Number incident cases -->

...

</observation>

<!-- end of data about monitoring for this organism -->

Summary Data Observation (VAT)

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.195 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 1 - US Realm

Table 484: Summary Data Observation (VAT) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Encounter (VAT)](#E_Summary_Encounter_VAT) (required) | [Summary Data Observation](#E_Summary_Data_Observation) (optional) |

This template specializes the Summary Data Observation for a Vascular Access Type Report.  
When the vascular access type is fistula there is an entryRelationship containing a Summary Data Observation recording the number of patients with buttonhole cannulation.

Table 485: Summary Data Observation (VAT) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.195) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22933](#C_86-22933) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-22934](#C_86-22934) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22935](#C_86-22935) |  |
| @root | 1..1 | SHALL |  | [86-22936](#C_86-22936) | 2.16.840.1.113883.10.20.5.6.195 |
| code | 1..1 | SHALL |  | [86-22937](#C_86-22937) | urn:oid:2.16.840.1.113883.10.20.5.9.17 (Codes for Vascular Access Type (Dialysis) Summary Data) |
| statusCode | 1..1 | SHALL |  | [86-22938](#C_86-22938) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) |
| @code | 1..1 | SHALL |  | [86-28113](#C_86-28113) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL |  | [86-22939](#C_86-22939) |  |
| entryRelationship | 0..1 | MAY |  | [86-22940](#C_86-22940) |  |
| @typeCode | 1..1 | SHALL |  | [86-22941](#C_86-22941) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-22942](#C_86-22942) | [Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185](#E_Summary_Data_Observation) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22933).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22934).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22935) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.195" (CONF:86-22936).
4. SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [Codes for Vascular Access Type (Dialysis) Summary Data](#Codes_for_Vascular_Access_Type_Dialysis) urn:oid:2.16.840.1.113883.10.20.5.9.17 DYNAMIC (CONF:86-22937).
5. SHALL contain exactly one [1..1] statusCode (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-22938).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:86-28113).
6. SHALL contain exactly one [1..1] value (CONF:86-22939).
7. MAY contain zero or one [0..1] entryRelationship (CONF:86-22940).
   1. The entryRelationship, if present, SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-22941).
   2. The entryRelationship, if present, SHALL contain exactly one [1..1] [Summary Data Observation](#E_Summary_Data_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-22942).
   3. In a VAT Report, the Summary Observation recording the number of patients with fistula SHALL contain an entryRelationship where the value of @typeCode is COMP, that contains a Summary Data Observation recording the number of those patients with buttonhole cannulation (CONF:86-22943).
8. If the observation reports a number of days, the value of value/xsi:type SHALL be PQ and the value of value/@unit SHALL be d. If the observation reports a number of patients, the value of value/@xsi:type SHALL be INT. If the value is a code, the value of value/@xsi:type SHALL be CD (CONF:86-22944).

Figure 182: Summary Data Observation (VAT) Example

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (VAT) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.195" />

<code code="2310-1"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Number of Chronic Hemodialysis Patients, vascular access

type is fistula" />

<statusCode code="completed" />

<value value="100" xsi:type="INT" />

<!-- When recording fistula, the patients with buttonhole cannulation

is also required -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

<code code="2311-9"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Number of chronic hemodialysis patients, vascular

access type is fistula, buttonhole cannulation" />

<statusCode code="completed" />

<value value="20" xsi:type="INT" />

</observation>

</entryRelationship>

</observation>

Summary Encounter

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.184 (closed)]

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Table 486: Summary Encounter Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section](#S_Summary_Data_Section) (required) | [Summary Data Observation](#E_Summary_Data_Observation) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. Each datum is recorded as a Summary Data Observation. The data requirements at time of publication are shown in tables under the generic Summary Data Observation template, above.

The table of codes for a particular report indicate what data are required at time of publication for the NHSN protocol. Accordingly, the Summary Encounter will contain the same number of Summary Data Observations as codes in the table.

A participant element records the location to which the data pertains. It has three parts: a location id, a location type code, and a scoping entity. The location id has the form <id root=”…” extension=”…”/> representing a location such as ward 9W, or <id root=”…”/> representing the whole facility. The scoping entity is optional if an id is present. However, specialized subsets of the facility such as “the whole facility excluding NICU and well-baby units” have no NHSN location id, and the scopingEntity is required in those cases.

Table 487: Summary Encounter Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.184) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22392](#C_86-22392) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [86-22393](#C_86-22393) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22394](#C_86-22394) |  |
| @root | 1..1 | SHALL |  | [86-22395](#C_86-22395) | 2.16.840.1.113883.10.20.5.6.184 |
| participant | 1..1 | SHALL |  | [86-22397](#C_86-22397) |  |
| @typeCode | 1..1 | SHALL |  | [86-22398](#C_86-22398) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [86-22399](#C_86-22399) |  |
| @classCode | 1..1 | SHALL |  | [86-22400](#C_86-22400) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| entryRelationship | 1..\* | SHALL |  | [86-22404](#C_86-22404) |  |
| @typeCode | 1..1 | SHALL |  | [86-22405](#C_86-22405) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-22406](#C_86-22406) | [Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185](#E_Summary_Data_Observation) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22392).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22393).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22394) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.184" (CONF:86-22395).
4. SHALL contain exactly one [1..1] participant (CONF:86-22397) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-22398).
   2. SHALL contain exactly one [1..1] participantRole (CONF:86-22399).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:86-22400).

The value of @root must be the NHSN assigned Facility OID.  
The value of @extension must be a value registered with NHSN.

* + 1. If recording data from an in-facility location, the participantRole element SHALL contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location (CONF:86-22401).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from the whole facility, the participantRole element SHALL contain an id element with @root (CONF:86-22402).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from a specialized subset of a facility, the participantRole element SHALL contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location, and a scopingEntity element where the value of @classCode is “PLC” and id/@root is present (CONF:86-22403).

1. SHALL contain at least one [1..\*] entryRelationship (CONF:86-22404).
   1. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-22405).
   2. Such entryRelationships SHALL contain exactly one [1..1] [Summary Data Observation](#E_Summary_Data_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-22406).

Figure 183: Summary Encounter Example

<encounter classCode="ENC" moodCode="EVN">

<!-- Summary Encounter templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.184" />

<!-- the in-facility location ID and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<!-- the facility OID scopes the in-facility location ID -->

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthcareServiceLocation"

code="1029-8"

displayName="Medical/Surgical Critical Care" />

</participantRole>

</participant>

<!-- Patient Days -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

...

</observation>

</entryRelationship>

<!-- Central Line Days -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

...

</observation>

</entryRelationship>

...

</entryRelationship>

</encounter>

Summary Encounter (ARO) (V3)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 4 - US Realm

Table 488: Summary Encounter (ARO) (V3) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (ARO) (V3)](#S_Summary_Data_Section_ARO_V3) (required) | [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. For an ARO report, each datum is recorded as a Summary Data Observation (AU/AR). The data requirements at time of publication are shown in a table under the Summary Data Observation (AU/AR) template, above.

A participant element records the location to which the data pertains. The location id has the form <id root=”…” extension=”…”/>.

Table 489: Summary Encounter (ARO) (V3) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [4395-23077](#C_4395-23077) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [4395-23078](#C_4395-23078) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [4395-23079](#C_4395-23079) |  |
| @root | 1..1 | SHALL |  | [4395-23080](#C_4395-23080) | 2.16.840.1.113883.10.20.5.6.199 |
| @extension | 1..1 | SHALL |  | [4395-30919](#C_4395-30919) | 2019-04-01 |
| participant | 1..1 | SHALL |  | [4395-23081](#C_4395-23081) |  |
| @typeCode | 1..1 | SHALL |  | [4395-23082](#C_4395-23082) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [4395-23083](#C_4395-23083) |  |
| @classCode | 1..1 | SHALL |  | [4395-23084](#C_4395-23084) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| id | 1..1 | SHALL |  | [4395-23085](#C_4395-23085) |  |
| @root | 1..1 | SHALL |  | [4395-23086](#C_4395-23086) |  |
| @extension | 1..1 | SHALL |  | [4395-23087](#C_4395-23087) |  |
| code | 1..1 | SHALL |  | [4395-23088](#C_4395-23088) | urn:oid:2.16.840.1.113883.13.19 (NHSNHealthcareServiceLocationCode) |
| entryRelationship | 1..\* | SHALL |  | [4395-23092](#C_4395-23092) |  |
| @typeCode | 1..1 | SHALL |  | [4395-23093](#C_4395-23093) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [4395-23094](#C_4395-23094) | [Summary Data Observation (AU/AR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01](#E_Summary_Data_Observation_AUAR) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:4395-23077).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:4395-23078).
3. SHALL contain exactly one [1..1] templateId (CONF:4395-23079) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.199" (CONF:4395-23080).
   2. SHALL contain exactly one [1..1] @extension="2019-04-01" (CONF:4395-30919).
4. SHALL contain exactly one [1..1] participant (CONF:4395-23081) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:4395-23082).
   2. SHALL contain exactly one [1..1] participantRole (CONF:4395-23083).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:4395-23084).
      2. This participantRole SHALL contain exactly one [1..1] id (CONF:4395-23085).

The value of @root must be the NHSN assigned Facility OID.

* + - 1. This id SHALL contain exactly one [1..1] @root (CONF:4395-23086).

The value of @extension must be a value registered with NHSN.

* + - 1. This id SHALL contain exactly one [1..1] @extension (CONF:4395-23087).
    1. This participantRole SHALL contain exactly one [1..1] code, which SHOULD be selected from ValueSet [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) urn:oid:2.16.840.1.113883.13.19 DYNAMIC (CONF:4395-23088).

1. SHALL contain at least one [1..\*] entryRelationship (CONF:4395-23092).
   1. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:4395-23093).
   2. Such entryRelationships SHALL contain exactly one [1..1] [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01) (CONF:4395-23094).

Figure 184: Summary Encounter (ARO) (V3)

<!-- Summary Encounter -->

<encounter classCode="ENC" moodCode="EVN">

<!-- Summary Encounter (ARO) (V3) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.199"

extension="2019-04-01"/>

<!-- the location id and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.111.111.111.10709" extension="FACWIDEIN"/>

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 Healthcare Service Location Code"

code="1250-0"

displayName="Facility Wide Inpatient"/>

</participantRole>

</participant>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (AU/AR) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.229"

extension="2015-04-01"/>

<code code="1851-5"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Patient Days"/>

<statusCode code="completed"/>

<value xsi:type="PQ" unit="d" value="235"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (AU/AR) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.229"

extension="2015-04-01"/>

<code code="1862-2" codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Admission count"/>

<statusCode code="completed"/>

<value xsi:type="INT" value="46"/>

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<!-- Summary Data Observation (AU/AR) templateId -->

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.229"

extension="2015-04-01"/>

<code code="2409-1" codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

displayName="Blood cultures performed"/>

<statusCode code="completed"/>

<value xsi:type="INT" value="24"/>

</observation>

</entryRelationship>

</encounter>

Summary Encounter (AUP) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 2 - US Realm

Table 490: Summary Encounter (AUP) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (AUP) (V2)](#S_Summary_Data_Section_AUP_V2) (required) | [Summary Data Observation (AUP)](#E_Summary_Data_Observation_AUP) (required)  [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. For an AUP report, data are recorded in both a Summary Data Observation (AU/AR) (non-stratified data) and a Summary Data Observation (AUP) (stratified data). The data requirements at time of publication are shown in a table under the Summary Data Observation (AU/AR) template, above.

A participant element records the location to which the data pertains. It has three parts: a location id, a location type code, and a scoping entity. The location id has the form <id root=”…” extension=”…”/> representing a location such as ward 9W, or <id root=”…”/> representing the whole facility. The scoping entity is optional if an id is present.

In an Antimicrobial Use Report, each antimicrobial is represented by a Summary Encounter. The antimicrobial is recorded as a participant in the encounter, in addition to the location participant.

Table 491: Summary Encounter (AUP) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1181-23019](#C_1181-23019) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1181-23020](#C_1181-23020) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1181-23021](#C_1181-23021) |  |
| @root | 1..1 | SHALL |  | [1181-23022](#C_1181-23022) | 2.16.840.1.113883.10.20.5.6.198 |
| @extension | 1..1 | SHALL |  | [1181-30563](#C_1181-30563) | 2015-04-01 |
| participant | 1..1 | SHALL |  | [1181-23023](#C_1181-23023) |  |
| @typeCode | 1..1 | SHALL |  | [1181-23024](#C_1181-23024) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1181-23025](#C_1181-23025) |  |
| @classCode | 1..1 | SHALL |  | [1181-23026](#C_1181-23026) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| participant | 1..1 | SHALL |  | [1181-23030](#C_1181-23030) |  |
| @typeCode | 1..1 | SHALL |  | [1181-23031](#C_1181-23031) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = CSM |
| participantRole | 1..1 | SHALL |  | [1181-23032](#C_1181-23032) |  |
| @classCode | 0..1 | MAY |  | [1181-23033](#C_1181-23033) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| code | 1..1 | SHALL |  | [1181-23034](#C_1181-23034) | urn:oid:2.16.840.1.114222.4.11.3360 (NHSNAntimicrobialAgentAURPCode) |
| entryRelationship | 1..1 | SHALL |  | [1181-23036](#C_1181-23036) |  |
| @typeCode | 1..1 | SHALL |  | [1181-23037](#C_1181-23037) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1181-23038](#C_1181-23038) | [Summary Data Observation (AU/AR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01](#E_Summary_Data_Observation_AUAR) |
| entryRelationship | 4..4 | SHALL |  | [1181-23040](#C_1181-23040) |  |
| @typeCode | 1..1 | SHALL |  | [1181-23041](#C_1181-23041) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1181-23042](#C_1181-23042) | [Summary Data Observation (AUP) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.194](#E_Summary_Data_Observation_AUP) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1181-23019).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1181-23020).
3. SHALL contain exactly one [1..1] templateId (CONF:1181-23021) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.198" (CONF:1181-23022).
   2. SHALL contain exactly one [1..1] @extension="2015-04-01" (CONF:1181-30563).
4. SHALL contain exactly one [1..1] participant (CONF:1181-23023) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1181-23024).
   2. SHALL contain exactly one [1..1] participantRole (CONF:1181-23025).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:1181-23026).

The value of @root must be the NHSN assigned Facility OID.  
The value of @extension must be a value registered with NHSN.

* + 1. If recording data from an in-facility location, the participantRole element SHALL contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19NHSNHealthcareServiceLocationCode DYNAMIC, recording the type of location (CONF:1181-23027).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from the whole facility, the participantRole element SHALL contain an id element with @root (CONF:1181-23028).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from a specialized subset of a facility, the participantRole element SHALL contain a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19 NHSNHealthcareServiceLocationCode DYNAMIC, recording the type of location, and a scopingEntity element where the value of @classCode is “PLC” and id/@root is present (CONF:1181-23029).

1. SHALL contain exactly one [1..1] participant (CONF:1181-23030) such that it
   1. SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1181-23031).
   2. SHALL contain exactly one [1..1] participantRole (CONF:1181-23032).
      1. This participantRole MAY contain zero or one [0..1] @classCode="MANU" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:1181-23033).
      2. This participantRole SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNAntimicrobialAgentAURPCode](#NHSNAntimicrobialAgentAURPCode) urn:oid:2.16.840.1.114222.4.11.3360 DYNAMIC (CONF:1181-23034).
2. SHALL contain exactly one [1..1] entryRelationship (CONF:1181-23036) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1181-23037).
   2. SHALL contain exactly one [1..1] [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01) (CONF:1181-23038).
   3. This Summary Data Observation (AU/AR) records Number of Therapy Days for the antimicrobial (this is not a simple total of the stratified data; consult the NHSN protocol for the calculation) (CONF:1181-23039).
3. SHALL contain [4..4] entryRelationship (CONF:1181-23040) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:1181-23041).
   2. SHALL contain exactly one [1..1] [Summary Data Observation (AUP)](#E_Summary_Data_Observation_AUP) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.194) (CONF:1181-23042).
   3. These Summary Data Observation (AUP) elements record Number of Therapy Days for the antimicrobial stratified by route of actual administration (four observations, one for each route) (CONF:1181-23043).

Figure 185: Summary Encounter (AUP) (V2) Example

<!-- encounter reporting data for one antimicrobial -->

<encounter classCode="ENC" moodCode="EVN">

<!—Summary Encounter (AUP) (V2) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.198"

extension="2015-04-01"/>

<!-- the location ID and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 Healthcare Service Location Code"

code="1029-8"

displayName="Medical/Surgical Critical Care" />

</participantRole>

</participant>

<!-- the antimicrobial agent reported -->

<participant typeCode="CSM">

<participantRole classCode="MANU">

<code codeSystem="2.16.840.1.113883.6.88"

codeSystemName="RxNorm"

code="7980"

displayName="Penicillin G"/>

</participantRole>

</participant>

<!-- first of five data observations -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (AU/AR) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.229"

extension="2015-04-01"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2524-7"

displayName="Number of Therapy Days"/>

<statusCode code="completed"/>

<value xsi:type="PQ" unit="d" value="36"/>

<!-- use this when recording the four stratified data

<methodCode codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="47625008"

displayName="Intravenous route" />

-->

</observation>

</entryRelationship>

<!-- ... four more observations here -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (AUP) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.194"/>

...

</observation>

</entryRelationship>

</encounter>

<!-- end of encounter for this antimicrobial -->

Summary Encounter (HP-FLU)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, STU 2 - US Realm

Table 492: Summary Encounter (HP-FLU) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (HP-FLU)](#S_Summary_Data_Section_HPFLU) (required) | [Summary Data Observation](#E_Summary_Data_Observation) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward for a specified period. The NHSN protocol defines which data to record for each type of summary report. For an HP-FLU Summary report, each datum is recorded as a Summary Data Observation. The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

In an HP-FLU Report, the data are stratified by healthcare personnel (HCP) type. A participant is provided to record the HCP type. Represent each HCP type with a separate Summary Encounter (HP-FLU).

Table 493: Summary Encounter (HP-FLU) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-32](#C_3311-32) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [3311-33](#C_3311-33) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3311-26](#C_3311-26) |  |
| @root | 1..1 | SHALL |  | [3311-34](#C_3311-34) | 2.16.840.1.113883.10.20.5.6.241 |
| @extension | 1..1 | SHALL |  | [3311-44](#C_3311-44) | 2017-04-01 |
| participant | 1..1 | SHALL |  | [3311-29](#C_3311-29) |  |
| @typeCode | 1..1 | SHALL |  | [3311-40](#C_3311-40) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SBJ |
| participantRole | 1..1 | SHALL |  | [3311-30](#C_3311-30) |  |
| @classCode | 1..1 | SHALL |  | [3311-41](#C_3311-41) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = PART |
| code | 1..1 | SHALL |  | [3311-42](#C_3311-42) | urn:oid:2.16.840.1.113883.10.20.5.9.6 (HealthcarePersonnelType) |
| entryRelationship | 1..\* | SHALL |  | [3311-25](#C_3311-25) |  |
| @typeCode | 1..1 | SHALL |  | [3311-43](#C_3311-43) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3311-31](#C_3311-31) | [Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185](#E_Summary_Data_Observation) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3311-32).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3311-33).
3. SHALL contain exactly one [1..1] templateId (CONF:3311-26) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.241" (CONF:3311-34).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-44).
4. SHALL contain exactly one [1..1] participant (CONF:3311-29) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SBJ" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-40).
   2. SHALL contain exactly one [1..1] participantRole (CONF:3311-30).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="PART" (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-41).
      2. This participantRole SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [HealthcarePersonnelType](#HealthcarePersonnelType) urn:oid:2.16.840.1.113883.10.20.5.9.6 DYNAMIC (CONF:3311-42).
5. SHALL contain at least one [1..\*] entryRelationship (CONF:3311-25).
   1. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3311-43).
   2. Such entryRelationships SHALL contain exactly one [1..1] [Summary Data Observation](#E_Summary_Data_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:3311-31).

Table 494: HealthcarePersonnelType

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: HealthcarePersonnelType urn:oid:2.16.840.1.113883.10.20.5.9.6  (Clinical Focus: NHSN surveillance reporting: monthly reporting denominators for healthcare personnel influenza vaccination (HP-FLU), type of healthcare personnel that received influenza vaccination),(Data Element Scope: A code identifying the type of healthcare personnel.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.6/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2366-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Employees (staff on facility payroll) |
| 2367-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Licensed independent practitioners: physicians, advanced practice nurses, and physician assistants |
| 2368-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Adult students or trainees and volunteers |
| 2369-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Other contract personnel |

Figure 186: Summary Encounter (HP-FLU) Example

<encounter classCode="ENC" moodCode="EVN">

<!-- [HAI R3D2] Summary Encounter (HP-FLU) -->

<templateId root="2.16.840.1.113883.10.20.5.6.241" extension="2017-04-01" />

<!-- This encounter reports on a subset of the total group -->

<participant typeCode="SBJ" contextControlCode="OP">

<participantRole classCode="PART">

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2366-3"

displayName="Employees (staff on facility payroll)" />

</participantRole>

</participant>

<!-- This summary observation reports the number of HCP

who worked at the facility in the flu season -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

...

</observation>

</entryRelationship>

<!-- Each of the following summary observations report the

number of HCP in that vaccination category -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

...

</observation>

</entryRelationship>

...

</encounter>

Summary Encounter (HV) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01 (closed)]

Published as part of NHSN Healthcare Associated Infection (HAI) Reports Release 3, DSTU 1.1 - US Realm

Table 495: Summary Encounter (HV) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (HV) (V2)](#S_Summary_Data_Section_HV_V2) (required) | [Summary Data Observation (HV)](#E_Summary_Data_Observation_HV) (required)  [Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)](#E_Facility_Transfuses_Blood_Products_Tr) (required)  [Blood Product Usage Summary Observation (V2)](#E_Blood_Product_Usage_Summary_Obs_V2) (required)  [Pathogen Reduced Apheresis Platelet Usage Summary Observation](#E_Pathogen_Reduced_Apheresis_Platelet_U) (optional) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report.

For a Hemovigilance Summary Report, each datum is recorded as a Summary Data Observation (HV). The data requirements at time of publication are shown in a table under the Summary Data Observation (HV) template, above.

The Summary Encounter (HV) includes a Blood Product Usage Summary Observation for each type of blood product being reported and, conditionally (if the facility transfused pathogen reduced apheresis platelets), a Pathogen Reduced Apheresis Platelet Usage Summary Observation for each type of pathogen reduced apheresis platelet being reported.

A participant element records the location to which the data pertains. The location id has the form <id root=”…” extension=”…”/> with an extension of 'FACWIDEIN' representing the whole facility.

Table 496: Summary Encounter (HV) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3247-30669](#C_3247-30669) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [3247-30670](#C_3247-30670) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3247-30653](#C_3247-30653) |  |
| @root | 1..1 | SHALL |  | [3247-30660](#C_3247-30660) | 2.16.840.1.113883.10.20.5.6.234 |
| @extension | 1..1 | SHALL |  | [3247-30661](#C_3247-30661) | 2016-08-01 |
| participant | 1..1 | SHALL |  | [3247-30654](#C_3247-30654) |  |
| @typeCode | 1..1 | SHALL |  | [3247-30668](#C_3247-30668) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [3247-30655](#C_3247-30655) |  |
| @classCode | 1..1 | SHALL |  | [3247-30667](#C_3247-30667) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| id | 1..1 | SHALL |  | [3247-30656](#C_3247-30656) |  |
| @root | 1..1 | SHALL |  | [3247-30662](#C_3247-30662) |  |
| @extension | 1..1 | SHALL |  | [3247-30663](#C_3247-30663) | FACWIDEIN |
| code | 1..1 | SHALL |  | [3247-30657](#C_3247-30657) | urn:oid:2.16.840.1.113883.6.259 (HSLOC) |
| @code | 1..1 | SHALL |  | [3247-30664](#C_3247-30664) | 1250-0 |
| @codeSystem | 1..1 | SHALL |  | [3247-30665](#C_3247-30665) | 2.16.840.1.113883.6.259 |
| @displayName | 1..1 | SHOULD |  | [3247-30666](#C_3247-30666) | Facility Wide Inpatient |
| entryRelationship | 1..\* | SHALL |  | [3247-30652](#C_3247-30652) |  |
| @typeCode | 1..1 | SHALL |  | [3247-30659](#C_3247-30659) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [3247-30658](#C_3247-30658) | [Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01](#E_Facility_Transfuses_Blood_Products_Tr) |
| entryRelationship | 1..\* | SHALL |  | [3247-30733](#C_3247-30733) |  |
| @typeCode | 1..1 | SHALL |  | [3247-30734](#C_3247-30734) | COMP |
| observation | 1..1 | SHALL |  | [3247-30735](#C_3247-30735) | [Blood Product Usage Summary Observation (V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01](#E_Blood_Product_Usage_Summary_Obs_V2) |
| entryRelationship | 0..\* | MAY |  | [3247-30792](#C_3247-30792) |  |
| observation | 1..1 | SHALL |  | [3247-30793](#C_3247-30793) | [Pathogen Reduced Apheresis Platelet Usage Summary Observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01](#E_Pathogen_Reduced_Apheresis_Platelet_U) |
| entryRelationship | 1..\* | SHALL |  | [3247-30730](#C_3247-30730) |  |
| @typeCode | 1..1 | SHALL |  | [3247-30731](#C_3247-30731) | COMP |
| observation | 1..1 | SHALL |  | [3247-30732](#C_3247-30732) | [Summary Data Observation (HV) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01](#E_Summary_Data_Observation_HV) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3247-30669).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3247-30670).
3. SHALL contain exactly one [1..1] templateId (CONF:3247-30653) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.234" (CONF:3247-30660).
   2. SHALL contain exactly one [1..1] @extension="2016-08-01" (CONF:3247-30661).
4. SHALL contain exactly one [1..1] participant (CONF:3247-30654) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:3247-30668).
   2. SHALL contain exactly one [1..1] participantRole (CONF:3247-30655).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:3247-30667).
      2. This participantRole SHALL contain exactly one [1..1] id (CONF:3247-30656).

The value of @root must be the NHSN assigned Facility OID.

* + - 1. This id SHALL contain exactly one [1..1] @root (CONF:3247-30662).

The value of @extension must be a value registered with NHSN.

* + - 1. This id SHALL contain exactly one [1..1] @extension="FACWIDEIN" (CONF:3247-30663).
    1. This participantRole SHALL contain exactly one [1..1] code (CodeSystem: HSLOC urn:oid:2.16.840.1.113883.6.259 DYNAMIC) (CONF:3247-30657).
       1. This code SHALL contain exactly one [1..1] @code="1250-0" (CONF:3247-30664).
       2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.259" (CONF:3247-30665).
       3. This code SHOULD contain exactly one [1..1] @displayName="Facility Wide Inpatient" (CONF:3247-30666).

1. SHALL contain at least one [1..\*] entryRelationship (CONF:3247-30652) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3247-30659).
   2. SHALL contain exactly one [1..1] [Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)](#E_Facility_Transfuses_Blood_Products_Tr) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01) (CONF:3247-30658).

There *SHALL* be exactly 123 Blood Product Usage Summary Observation entryRelationships (one for each value in the value set NHSN Summary Blood Product Usage (urn:oid:2.16.840.1.114222.4.11.7353))

1. SHALL contain at least one [1..\*] entryRelationship (CONF:3247-30733) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CONF:3247-30734).
   2. SHALL contain exactly one [1..1] [Blood Product Usage Summary Observation (V2)](#E_Blood_Product_Usage_Summary_Obs_V2) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01) (CONF:3247-30735).

If the facility transfused pathogen reduced apheresis platelets (i.e. the apheresis platelet total for any of codes 3514-7, 3515-4, 3516-2, 3517-0, 3518-8, or 3519-6 is > 0) then there *SHALL* be exactly 12 Pathogen Reduced Apheresis Platelet Usage Summary Observation entryRelationships (one for each value in the value set NHSN Pathogen Reduced Apheresis Platelet Usage (urn:oid:2.16.840.1.113883.10.20.5.9.5))

1. MAY contain zero or more [0..\*] entryRelationship (CONF:3247-30792) such that it
   1. SHALL contain exactly one [1..1] [Pathogen Reduced Apheresis Platelet Usage Summary Observation](#E_Pathogen_Reduced_Apheresis_Platelet_U) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01) (CONF:3247-30793).
2. SHALL contain at least one [1..\*] entryRelationship (CONF:3247-30730) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CONF:3247-30731).
   2. SHALL contain exactly one [1..1] [Summary Data Observation (HV)](#E_Summary_Data_Observation_HV) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01) (CONF:3247-30732).

Figure 187: Summary Encounter (HV) (V2) Example

<encounter classCode="ENC" moodCode="EVN">

<!-- Summary Encounter (HV) (V2) -->

<templateId root="2.16.840.1.113883.10.20.5.6.234" extension="2016-08-01" />

<!-- the location ID and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="FACWIDEIN" />

<code codeSystem="2.16.840.1.113883.6.259" codeSystemName="HL7 HealthCareServiceLocation" code="1250-0" displayName="FACWIDEIN" />

</participantRole>

</participant>

<!-- Blood product summaries

There SHALL be exactly 102 Blood Product Usage Summary Observation

entryRelationships (one for each value in the value set NHSN Summary

Blood Product Usage (urn:oid:2.16.840.1.114222.4.11.7353))

-->

<!-- Total number of units transfused - Whole blood -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI] Blood Product Usage Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2015-10-01" />

...

</observation>

</entryRelationship>

<!-- Total number of aliquots transfused - Whole blood -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI] Blood Product Usage Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2015-10-01" />

...

</observation>

</entryRelationship>

<!-- Total number of Discards - Whole blood -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI] Blood Product Usage Summary Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.237" extension="2015-10-01" />

...

</observation>

</entryRelationship>

...

<entryRelationship typeCode="COMP">

<!-- Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- [HAI R3D1.1] Facility Transfuses Blood Products Treated with

Pathogen Reduction Technology Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.236" extension="2016-08-01" />

...

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (HV) -->

<templateId root="2.16.840.1.113883.10.20.5.6.235" extension="2015-10-01" />

...

</observation>

</entryRelationship>

...

</encounter>

Summary Encounter (NICU)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.191 (closed)]

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Table 497: Summary Encounter (NICU) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (NICU) (V2)](#S_Summary_Data_Section_NICU_V2) (required) | [Summary Data Observation](#E_Summary_Data_Observation) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. For a NICU Summary report, each datum is recorded as a Summary Data Observation. The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

In a NICU Report, the data are stratified by birthweight. A second participant is provided to record the participant subgroup. Represent each group with a separate Summary Encounter.

Table 498: Summary Encounter (NICU) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.191) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22817](#C_86-22817) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [86-22818](#C_86-22818) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22819](#C_86-22819) |  |
| @root | 1..1 | SHALL |  | [86-22820](#C_86-22820) | 2.16.840.1.113883.10.20.5.6.191 |
| participant | 1..1 | SHALL |  | [86-22821](#C_86-22821) |  |
| @typeCode | 1..1 | SHALL |  | [86-22822](#C_86-22822) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [86-22823](#C_86-22823) |  |
| @classCode | 1..1 | SHALL |  | [86-22824](#C_86-22824) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| participant | 1..1 | SHALL |  | [86-22828](#C_86-22828) |  |
| @typeCode | 1..1 | SHALL |  | [86-22829](#C_86-22829) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = SBJ |
| participantRole | 1..1 | SHALL |  | [86-22830](#C_86-22830) |  |
| @classCode | 1..1 | SHALL |  | [86-22831](#C_86-22831) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = PRS |
| code | 1..1 | SHALL |  | [86-22832](#C_86-22832) | urn:oid:2.16.840.1.114222.4.11.3234 (NHSNPopulationCategoryCode) |
| entryRelationship | 1..\* | SHALL |  | [86-22834](#C_86-22834) |  |
| @typeCode | 1..1 | SHALL |  | [86-22835](#C_86-22835) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-22836](#C_86-22836) | [Summary Data Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185](#E_Summary_Data_Observation) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22817).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22818).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22819) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.191" (CONF:86-22820).
4. SHALL contain exactly one [1..1] participant (CONF:86-22821) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-22822).
   2. SHALL contain exactly one [1..1] participantRole (CONF:86-22823).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:86-22824).

The value of @root must be the NHSN assigned Facility OID.  
The value of @extension must be a value registered with NHSN.

* + 1. If recording data from an in-facility location, the participantRole element SHALL contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location (CONF:86-22825).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from the whole facility, the participantRole element SHALL contain an id element with @root (CONF:86-22826).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from a specialized subset of a facility, the participantRole element SHALL contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location, and a scopingEntity element where the value of @classCode is “PLC” and id/@root is present (CONF:86-22827).

1. SHALL contain exactly one [1..1] participant (CONF:86-22828) such that it
   1. SHALL contain exactly one [1..1] @typeCode="SBJ" (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:86-22829).
   2. SHALL contain exactly one [1..1] participantRole (CONF:86-22830).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="PRS" (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41) (CONF:86-22831).
      2. This participantRole SHALL contain exactly one [1..1] code, which SHALL be selected from ValueSet [NHSNPopulationCategoryCode](#NHSNPopulationCategoryCode) urn:oid:2.16.840.1.114222.4.11.3234 DYNAMIC (CONF:86-22832).
2. SHALL contain at least one [1..\*] entryRelationship (CONF:86-22834).
   1. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-22835).
   2. Such entryRelationships SHALL contain exactly one [1..1] [Summary Data Observation](#E_Summary_Data_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.185) (CONF:86-22836).

Table 499: NHSNPopulationCategoryCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNPopulationCategoryCode urn:oid:2.16.840.1.114222.4.11.3234  (Clinical Focus: NHSN surveillance reporting: categories of birth weights and gestational ages used with denominators for neonatal intensive care unit (NICU)),(Data Element Scope: A code describing the population category associated with the data being reported.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3234/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1334-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Extremely preterm (<28 weeks) |
| 1335-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Very preterm (28 to <32 weeks) |
| 1336-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Moderate to late preterm (32 to <37 weeks) |
| 1337-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Term (>=37 weeks) |
| 3300-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Birth weight under 750 grams |
| 3301-9 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Birth weight 751-1000 grams |
| 3302-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Birth weight 1001-1500 grams |
| 3303-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Birth weight 1501-2500 grams |
| 3304-3 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Birth weight over 2500 grams |

Figure 188: Summary Encounter (NICU) Example

<encounter classCode="ENC" moodCode="EVN">

<!—Summary Encounter (NICU) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.191" />

<!-- the location id and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthcareServiceLocation"

code="1029-8"

displayName="Medical/Surgical Critical Care" />

</participantRole>

</participant>

<!-- This encounter reports on a subset of the total group -->

<participant typeCode="SBJ" contextControlCode="OP">

<participantRole classCode="PRS">

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3300-1"

displayName="Birthweight under 750g" />

</participantRole>

</participant>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!—Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1851-5"

displayName="Patient Days" />

<statusCode code="completed" />

<value xsi:type="PQ" unit="d" value="23" />

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!—Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1852-3"

displayName="Ventilator Days" />

<statusCode code="completed" />

<value xsi:type="PQ" unit="d" value="5" />

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!—Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1854-9"

displayName="Number of central line days including umbilical catheter" />

<statusCode code="completed" />

<value xsi:type="PQ" unit="d" value="5" />

</observation>

</entryRelationship>

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!—Summary Data Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.185" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="1854-9"

displayName="Central Line Days including umbilical catheter" />

<statusCode code="completed" />

<value xsi:type="PQ" unit="d" value="5" />

</observation>

</entryRelationship>

</encounter>

Summary Encounter (POM)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.193 (closed)]

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Table 500: Summary Encounter (POM) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (POM) (V2)](#S_Summary_Data_Section_POM_V2) (required) | [Summary Data Observation (POM)](#E_Summary_Data_Observation_POM) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. The Summary Encounter (POM) contains one or more Summary Data Observations (POM). The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

The POM Report records summary data for a location during a specified period. It can be submitted at the facility-wide level or at the unit level.

• In either case, the data reported is Number of Total Facility Patient Days and Number of Total Facility Admissions, or Number of Total Facility Encounters (as appropriate for an inpatient location or an outpatient location).  
• In a facility-level report, the Number of MDRO Patient Days and Number of MDRO Admissions, or Number of MDRO Encounters (as appropriate for an inpatient location or an outpatient location) is recorded.  
• In a facility-level report, if the facility includes reporting for C.difficile at the facility-wide level in its monthly plan, data adjusted for C.difficile reporting are required; see the NHSN protocol for definitions and calculations.

Table 501: Summary Encounter (POM) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.193) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22866](#C_86-22866) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [86-22867](#C_86-22867) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22868](#C_86-22868) |  |
| @root | 1..1 | SHALL |  | [86-22869](#C_86-22869) | 2.16.840.1.113883.10.20.5.6.193 |
| participant | 1..1 | SHALL |  | [86-22870](#C_86-22870) |  |
| @typeCode | 1..1 | SHALL |  | [86-22871](#C_86-22871) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [86-22872](#C_86-22872) |  |
| @classCode | 1..1 | SHALL |  | [86-22873](#C_86-22873) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| entryRelationship | 1..\* | SHALL |  | [86-22877](#C_86-22877) |  |
| @typeCode | 1..1 | SHALL |  | [86-22878](#C_86-22878) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-22879](#C_86-22879) | [Summary Data Observation (POM) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.192](#E_Summary_Data_Observation_POM) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22866).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22867).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22868) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.193" (CONF:86-22869).
4. SHALL contain exactly one [1..1] participant (CONF:86-22870) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-22871).
   2. SHALL contain exactly one [1..1] participantRole (CONF:86-22872).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:86-22873).

The value of @root must be the NHSN assigned Facility OID.  
The value of @extension must be a value registered with NHSN.

* + 1. If recording data from an in-facility location, the participantRole element SHALL contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location (CONF:86-22874).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from the whole facility, the participantRole element SHALL contain an id element with @root (CONF:86-22875).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from a specialized subset of a facility, the participantRole element SHALL contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location, and a scopingEntity element where the value of @classCode is “PLC” and id/@root is present (CONF:86-22876).

1. SHALL contain at least one [1..\*] entryRelationship (CONF:86-22877).
   1. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-22878).
   2. Such entryRelationships SHALL contain exactly one [1..1] [Summary Data Observation (POM)](#E_Summary_Data_Observation_POM) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.192) (CONF:86-22879).

Figure 189: Summary Encounter (POM) Example

<encounter classCode="ENC" moodCode="EVN">

<!-- Summary Encounter (POM) -->

<templateId root="2.16.840.1.113883.10.20.5.6.193" />

<!-- the location id and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthcareServiceLocation"

code="1029-8"

displayName="Medical/Surgical Critical Care" />

</participantRole>

</participant>

<!-- Number of Total Facility Patient days -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation POM -->

<templateId root="2.16.840.1.113883.10.20.5.6.192" />

...

</observation>

</entryRelationship>

<!-- Number of Total Facility Admissions -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation POM -->

<templateId root="2.16.840.1.113883.10.20.5.6.192" />

...

</observation>

</entryRelationship>

<!-- If the report is facility-wide, inpatient, NHSN requires additional

observations here, constructed as above but with different codes:

1827-5 Number of MDRO Patient Days

1828-3 Number of MDRO Admissions

1829 Number of MDRO Encounters

1830-9 Number of Patient Days as adjusted for C.Diff reporting

1831-7 Number of Admissions as adjusted for C.Diff reporting

If the report is not facility-wide, NHSN will collect but does not require the

surveillance details shown below. -->

<!-- Number hand hygiene indicated -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation POM -->

<templateId root="2.16.840.1.113883.10.20.5.6.192" />

...

</observation>

</entryRelationship>

<!-- Number hand hygiene performed -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation POM -->

<templateId root="2.16.840.1.113883.10.20.5.6.192" />

...

</observation>

</entryRelationship>

<!-- Number gown and gloves indicated -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation POM -->

...

</observation>

</entryRelationship>

<!-- Number gown and gloves used -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation POM -->

<templateId root="2.16.840.1.113883.10.20.5.6.192" />

...

</observation>

</entryRelationship>

<!-- MRSA was monitored -->

<entryRelationship typeCode="COMP" negationInd="false">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation POM -->

<templateId root="2.16.840.1.113883.10.20.5.6.192" />

...

</observation>

</entryRelationship>

<!-- end of AST for MRSA data -->

</encounter>

Summary Encounter (VAT)

[encounter: identifier urn:oid:2.16.840.1.113883.10.20.5.6.196 (closed)]

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Table 502: Summary Encounter (VAT) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (VAT)](#S_Summary_Data_Section_VAT) (required) | [Summary Data Observation (VAT)](#E_Summary_Data_Observation_VAT) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. Each datum in a VAT Report is recorded as a Summary Data Observation (VAT). The data requirements at time of publication are shown in a table under the Summary Data Observation template, above.

A participant element records the location to which the data pertains. It has three parts: a location id, a location type code, and a scoping entity. The location id has the form <id root=”…” extension=”…”/> representing a location such as ward 9W, or <id root=”…”/> representing the whole facility.

Table 503: Summary Encounter (VAT) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.196) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-22951](#C_86-22951) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [86-22952](#C_86-22952) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-22953](#C_86-22953) |  |
| @root | 1..1 | SHALL |  | [86-22954](#C_86-22954) | 2.16.840.1.113883.10.20.5.6.196 |
| participant | 1..1 | SHALL |  | [86-22955](#C_86-22955) |  |
| @typeCode | 1..1 | SHALL |  | [86-22956](#C_86-22956) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [86-22957](#C_86-22957) |  |
| @classCode | 1..1 | SHALL |  | [86-22958](#C_86-22958) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| entryRelationship | 1..\* | SHALL |  | [86-22962](#C_86-22962) |  |
| @typeCode | 1..1 | SHALL |  | [86-22963](#C_86-22963) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-22964](#C_86-22964) | [Summary Data Observation (VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.195](#E_Summary_Data_Observation_VAT) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-22951).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-22952).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22953) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.196" (CONF:86-22954).
4. SHALL contain exactly one [1..1] participant (CONF:86-22955) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:86-22956).
   2. SHALL contain exactly one [1..1] participantRole (CONF:86-22957).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:86-22958).

The value of @root must be the NHSN assigned Facility OID.  
The value of @extension must be a value registered with NHSN.

* + 1. If recording data from an in-facility location, the participantRole element SHALL contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location (CONF:86-22959).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from the whole facility, the participantRole element SHALL contain an id element with @root (CONF:86-22960).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from a specialized subset of a facility, the participantRole element SHALL contain a code element where the value is selected from ValueSet NHSNHealthcareServiceLocationCode 2.16.840.1.113883.13.19 DYNAMIC, recording the type of location, and a scopingEntity element where the value of @classCode is “PLC” and id/@root is present (CONF:86-22961).

1. SHALL contain at least one [1..\*] entryRelationship (CONF:86-22962).
   1. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-22963).
   2. Such entryRelationships SHALL contain exactly one [1..1] [Summary Data Observation (VAT)](#E_Summary_Data_Observation_VAT) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.195) (CONF:86-22964).

Figure 190: Summary Encounter (VAT) Example

<encounter classCode="ENC" moodCode="EVN">

<!-- Summary Encounter (VAT) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.196" />

<!-- the in-facility location ID and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<!-- the facility OID scopes the in-facility location ID -->

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 HealthcareServiceLocation"

code="1153-6"

displayName="Outpatient Hemodialysis Clinic" />

</participantRole>

</participant>

<!-- Number of Chronic Hemodialysis Patients, vascular access type is fistula -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (VAT) template -->

<templateId root="2.16.840.1.113883.10.20.5.6.195" />

...

</observation>

</entryRelationship>

...

</encounter>

Summary Encounter Patient Presence (AUP) (V2)

[encounter: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01 (closed)]

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Table 504: Summary Encounter Patient Presence (AUP) (V2) Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (AUP) (V2)](#S_Summary_Data_Section_AUP_V2) (required) | [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) (required) |

A Summary Encounter records a set of summary data, usually for a population such as the patients in a ward in a specified period. The NHSN protocol defines which data to record for each type of summary report. The Summary Encounter Patient Presence (AUP) contains one or more Summary Data Observations (AU/AR). The data requirements at time of publication are shown in a table under the Summary Data Observation (AU/AR) template, above.

NHSN reporting requires:  
• If the reporting location is a single unit such as a ward, Number of Patient-Present Days, or  
• If the encounter location is facility-wide rather than a single unit, Number of Admissions and Number of Patient-present Days.

Table 505: Summary Encounter Patient Presence (AUP) (V2) Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| encounter (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1181-22995](#C_1181-22995) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = ENC |
| @moodCode | 1..1 | SHALL |  | [1181-22996](#C_1181-22996) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1181-22997](#C_1181-22997) |  |
| @root | 1..1 | SHALL |  | [1181-22998](#C_1181-22998) | 2.16.840.1.113883.10.20.5.6.197 |
| @extension | 1..1 | SHALL |  | [1181-30562](#C_1181-30562) | 2015-04-01 |
| participant | 1..1 | SHALL |  | [1181-22999](#C_1181-22999) |  |
| @typeCode | 1..1 | SHALL |  | [1181-23000](#C_1181-23000) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = LOC |
| participantRole | 1..1 | SHALL |  | [1181-23001](#C_1181-23001) |  |
| @classCode | 1..1 | SHALL |  | [1181-23002](#C_1181-23002) | urn:oid:2.16.840.1.113883.5.41 (HL7EntityClass) = SDLOC |
| entryRelationship | 1..\* | SHALL |  | [1181-23006](#C_1181-23006) |  |
| @typeCode | 1..1 | SHALL |  | [1181-23007](#C_1181-23007) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [1181-23008](#C_1181-23008) | [Summary Data Observation (AU/AR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01](#E_Summary_Data_Observation_AUAR) |

1. SHALL contain exactly one [1..1] @classCode="ENC" Encounter (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:1181-22995).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:1181-22996).
3. SHALL contain exactly one [1..1] templateId (CONF:1181-22997) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.197" (CONF:1181-22998).
   2. SHALL contain exactly one [1..1] @extension="2015-04-01" (CONF:1181-30562).
4. SHALL contain exactly one [1..1] participant (CONF:1181-22999) such that it
   1. SHALL contain exactly one [1..1] @typeCode="LOC" Location (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90 STATIC) (CONF:1181-23000).
   2. SHALL contain exactly one [1..1] participantRole (CONF:1181-23001).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="SDLOC" Service Delivery Location (CodeSystem: HL7EntityClass urn:oid:2.16.840.1.113883.5.41 STATIC) (CONF:1181-23002).

The value of @root must be the NHSN assigned Facility OID.  
The value of @extension must be a value registered with NHSN.

* + 1. If recording data from an in-facility location, the participantRole element SHALL contain an id element with both @root and @extension, and a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19NHSNHealthcareServiceLocationCode DYNAMIC, recording the type of location (CONF:1181-23003).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from the whole facility, the participantRole element SHALL contain an id element with @root (CONF:1181-23004).

The value of @root must be the NHSN assigned Facility OID.

* + 1. Or, if recording data from a specialized subset of a facility, the participantRole element SHALL contain a code element where the value is selected from ValueSet 2.16.840.1.113883.13.19 NHSNHealthcareServiceLocationCode DYNAMIC, recording the type of location, and a scopingEntity element where the value of @classCode is “PLC” and id/@root is present (CONF:1181-23005).

1. SHALL contain at least one [1..\*] entryRelationship (CONF:1181-23006).
   1. Such entryRelationships SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:1181-23007).
   2. Such entryRelationships SHALL contain exactly one [1..1] [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01) (CONF:1181-23008).
2. This Summary Encounter SHALL contain a Summary Data Observation (AU/AR) that records Number of Patient-present Days for the reporting location (CONF:1181-23011).
3. If the reporting location is facility-wide inpatient units, this Summary Encounter SHALL contain a second Summary Data Observation (AU/AR) that records Number of Admissions (CONF:1181-23012).

Figure 191: Summary Encounter Patient Presence (AUP) (V2)

<!-- encounter recording patient presence -->

<encounter classCode="ENC" moodCode="EVN">

<!-- Summary Encounter Patient Presence (AUP) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.197"

extension="2015-04-01" />

<!-- the location ID and type -->

<participant typeCode="LOC">

<participantRole classCode="SDLOC">

<id root="2.16.840.1.113883.3.117.1.1.5.1.1" extension="9W" />

<code codeSystem="2.16.840.1.113883.6.259"

codeSystemName="HL7 Healthcare Service Location Code"

code="1029-8"

displayName="Medical/Surgical Critical Care" />

</participantRole>

</participant>

<!-- report for a single unit: Number of Patient-present Days -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN">

<!-- Summary Data Observation (AU/AP) templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.229"

extension="2015-04-01" />

...

</observation>

</entryRelationship>

<!-- if the reporting location is facility-wide inpatient units,

a second observation recording Number of Admissions -->

</encounter>

Suspected Source Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.168 (closed)]

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Table 506: Suspected Source Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Positive Blood Culture Observation (V3)](#E_Positive_Blood_Culture_Observation_V3) (optional) | [Imputability Observation](#E_Imputability_Observation) (required) |

This observation records a suspected source of a finding.  
This observation and its value set are used in an Evidence of Infection (Dialysis) Report. It could be generalized for broader use.

Table 507: Suspected Source Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.168) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21508](#C_86-21508) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21509](#C_86-21509) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21510](#C_86-21510) | false |
| templateId | 1..1 | SHALL |  | [86-28287](#C_86-28287) |  |
| @root | 1..1 | SHALL |  | [86-28288](#C_86-28288) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-21528](#C_86-21528) |  |
| @root | 1..1 | SHALL |  | [86-21529](#C_86-21529) | 2.16.840.1.113883.10.20.5.6.168 |
| id | 1..1 | SHALL |  | [86-21530](#C_86-21530) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22741](#C_86-22741) | NA |
| code | 1..1 | SHALL |  | [86-21511](#C_86-21511) |  |
| @code | 1..1 | SHALL |  | [86-21512](#C_86-21512) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28356](#C_86-28356) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21513](#C_86-21513) |  |
| @code | 1..1 | SHALL |  | [86-21514](#C_86-21514) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21515](#C_86-21515) |  |
| entryRelationship | 1..1 | SHALL |  | [86-21519](#C_86-21519) |  |
| @typeCode | 1..1 | SHALL |  | [86-21520](#C_86-21520) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-21521](#C_86-21521) | [Imputability Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.134](#E_Imputability_Observation) |
| code | 1..1 | SHALL |  | [86-21522](#C_86-21522) |  |
| @code | 1..1 | SHALL | CD | [86-21523](#C_86-21523) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2307-7 |
| value | 1..1 | SHALL | CD | [86-21524](#C_86-21524) |  |
| @code | 1..1 | SHALL | CD | [86-21525](#C_86-21525) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 60022001 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21508).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21509).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-21510).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28287) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28288).
6. SHALL contain exactly one [1..1] templateId (CONF:86-21528) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.168" (CONF:86-21529).
7. SHALL contain exactly one [1..1] id (CONF:86-21530).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22741).
8. SHALL contain exactly one [1..1] code (CONF:86-21511).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21512).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28356).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21513).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21514).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21515).
    1. In an Evidence of Infection (Dialysis) report, to represent the suspected source as a code, the value of @code SHALL be selected from ValueSet NHSNSuspectedSourceTypeCode 2.16.840.1.114222.4.11.6008 DYNAMIC (CONF:86-21516).
    2. If the suspected source is not listed in Value Set 2.16.840.1.114222.4.11.6008 NHSNSuspectedSourceTypeCode, set the value of @nullFlavor to ‘OTH’ (CONF:86-21517).
    3. If the suspected source is uncertain, set the value of @nullFlavor to “NI” (CONF:86-21518).
11. SHALL contain exactly one [1..1] entryRelationship (CONF:86-21519) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" Has component (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21520).
    2. SHALL contain exactly one [1..1] [Imputability Observation](#E_Imputability_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.134) (CONF:86-21521).
       1. This observation SHALL contain exactly one [1..1] code (CONF:86-21522).
          1. This code SHALL contain exactly one [1..1] @code="2307-7" Imputability of positive blood culture to the suspected source (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-21523).
       2. This observation SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21524).
          1. This value SHALL contain exactly one [1..1] @code="60022001" Possible (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-21525).

Table 508: NHSNSuspectedSourceTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNSuspectedSourceTypeCode urn:oid:2.16.840.1.114222.4.11.6008  (Clinical Focus: NHSN surveillance reporting: suspected source of infection),(Data Element Scope: A coded observation value describing the suspected source of a finding.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6008/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2303-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Contamination |
| 2319-2 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Vascular access |

Figure 192: Suspected Source Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Suspected Source of Pathogen templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.168"/>

<id nullFlavor="NA"/>

<code code="ASSERTION"

codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2319-2"

displayName="Vascular access"/>

<!-- Imputability = possible (the "suspected" source) -->

<entryRelationship typeCode="COMP">

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Imputability Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.134"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2307-7"

displayName="Imputability of positive blood culture

to the suspected source"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="60022001"

displayName="Possible"/>

</observation>

</entryRelationship>

</observation>

Transient Patient Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.169 (closed)]

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Table 509: Transient Patient Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Dialysis Patient Observation](#E_Dialysis_Patient_Observation) (required) |  |

This observation records whether the service location submitting the report is the location where the patient is usually seen. It is used in the Evidence of Infection (Dialysis) Report.

When the service location is not the location where the patient is usually seen, set the value of @negationInd to false. When the service location is the location where the patient is usually seen, set the value of @negationInd to true.

Table 510: Transient Patient Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.169) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21451](#C_86-21451) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21452](#C_86-21452) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21453](#C_86-21453) |  |
| templateId | 1..1 | SHALL |  | [86-28289](#C_86-28289) |  |
| @root | 1..1 | SHALL |  | [86-28290](#C_86-28290) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-22035](#C_86-22035) |  |
| @root | 1..1 | SHALL |  | [86-22036](#C_86-22036) | 2.16.840.1.113883.10.20.5.6.169 |
| id | 1..1 | SHALL |  | [86-22737](#C_86-22737) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22738](#C_86-22738) | NA |
| code | 1..1 | SHALL |  | [86-21454](#C_86-21454) |  |
| @code | 1..1 | SHALL |  | [86-21455](#C_86-21455) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28391](#C_86-28391) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21456](#C_86-21456) |  |
| @code | 1..1 | SHALL |  | [86-21457](#C_86-21457) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21458](#C_86-21458) |  |
| @code | 1..1 | SHALL |  | [86-21459](#C_86-21459) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2304-4 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21451).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21452).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-21453).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28289) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28290).
6. SHALL contain exactly one [1..1] templateId (CONF:86-22035) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.169" (CONF:86-22036).
7. SHALL contain exactly one [1..1] id (CONF:86-22737).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22738).
8. SHALL contain exactly one [1..1] code (CONF:86-21454).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21455).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28391).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21456).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21457).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21458).
    1. This value SHALL contain exactly one [1..1] @code="2304-4" Transient Patient (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277 STATIC) (CONF:86-21459).

Figure 193: Transient Patient Observation Example

<!-- Transient Patient Observation -->

<!-- If the patient is a transient patient, not usually seen at the

service location submitting the report, set @negationInd to "true". -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Transient Patient Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.169"/>

<id nullFlavor="NA"/>

<code code="ASSERTION" codeSystem="2.16.840.1.113883.5.4"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2304-4"

displayName="Transient patient"/>

</observation>

Trauma Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.170 (closed)]

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Table 511: Trauma Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (required) |  |

This observation records whether the person had trauma. It is used in reporting the circumstances of a procedure.  
If trauma was involved, set the value of @negationInd to false. If trauma was not involved, set the value of @negationInd to true.

Table 512: Trauma Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.170) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-20922](#C_86-20922) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-20923](#C_86-20923) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-20924](#C_86-20924) |  |
| templateId | 1..\* | SHALL |  | [86-28291](#C_86-28291) |  |
| @root | 1..1 | SHALL |  | [86-28292](#C_86-28292) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..\* | SHALL |  | [86-20927](#C_86-20927) |  |
| @root | 1..1 | SHALL |  | [86-20928](#C_86-20928) | 2.16.840.1.113883.10.20.5.6.170 |
| id | 1..1 | SHALL |  | [86-20929](#C_86-20929) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22735](#C_86-22735) | NA |
| code | 1..1 | SHALL |  | [86-20930](#C_86-20930) |  |
| @code | 1..1 | SHALL | CS | [86-20931](#C_86-20931) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28392](#C_86-28392) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-20932](#C_86-20932) |  |
| @code | 1..1 | SHALL |  | [86-20933](#C_86-20933) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-20934](#C_86-20934) |  |
| @code | 1..1 | SHALL |  | [86-20936](#C_86-20936) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 417746004 |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-20922).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-20923).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-20924).
5. SHALL contain at least one [1..\*] templateId (CONF:86-28291) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28292).
6. SHALL contain at least one [1..\*] templateId (CONF:86-20927) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.170" (CONF:86-20928).
7. SHALL contain exactly one [1..1] id (CONF:86-20929).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22735).
8. SHALL contain exactly one [1..1] code (CONF:86-20930).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-20931).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28392).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-20932).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-20933).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-20934).
    1. This value SHALL contain exactly one [1..1] @code="417746004" Trauma (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-20936).

Figure 194: Trauma Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Trauma Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.170"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

code="417746004"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

displayName="Trauma"/>

</observation>

Type of Antimicrobial Start Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01 (closed)]

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Table 513: Type of Antimicrobial Start Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [IV Antibiotic Start Clinical Statement (V4)](#E_IV_Antibiotic_Start_Clinical_Stmt_V4) (optional) |  |

This observation records whether the antimicrobial start was a new outpatient start or a continuation of an inpatient course.

Table 514: Type of Antimicrobial Start Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [1202-30558](#C_1202-30558) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [1202-30559](#C_1202-30559) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [1202-30548](#C_1202-30548) |  |
| @root | 1..1 | SHALL |  | [1202-30552](#C_1202-30552) | 2.16.840.1.113883.10.20.5.6.230 |
| @extension | 1..1 | SHALL |  | [1202-30553](#C_1202-30553) | 2015-10-01 |
| code | 1..1 | SHALL |  | [1202-30549](#C_1202-30549) |  |
| @code | 1..1 | SHALL |  | [1202-30554](#C_1202-30554) | 2335-8 |
| @codeSystem | 1..1 | SHALL |  | [1202-30555](#C_1202-30555) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| statusCode | 1..1 | SHALL |  | [1202-30551](#C_1202-30551) |  |
| @code | 1..1 | SHALL |  | [1202-30560](#C_1202-30560) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [1202-30550](#C_1202-30550) |  |
| @code | 1..1 | SHALL |  | [1202-30556](#C_1202-30556) | urn:oid:2.16.840.1.114222.4.11.7338 (NHSNStartOrContinuation) |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:1202-30558).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:1202-30559).
3. SHALL contain exactly one [1..1] templateId (CONF:1202-30548) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.230" (CONF:1202-30552).
   2. SHALL contain exactly one [1..1] @extension="2015-10-01" (CONF:1202-30553).
4. SHALL contain exactly one [1..1] code (CONF:1202-30549).
   1. This code SHALL contain exactly one [1..1] @code="2335-8" New outpatient start or continuation of inpatient course (CONF:1202-30554).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:1202-30555).
5. SHALL contain exactly one [1..1] statusCode (CONF:1202-30551).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14) (CONF:1202-30560).
6. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:1202-30550).
   1. This value SHALL contain exactly one [1..1] @code, which SHALL be selected from ValueSet [NHSNStartOrContinuation](#NHSNStartOrContinuation) urn:oid:2.16.840.1.114222.4.11.7338 DYNAMIC (CONF:1202-30556).

Table 515: NHSNStartOrContinuation

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNStartOrContinuation urn:oid:2.16.840.1.114222.4.11.7338  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the type of antimicrobial start.),(Data Element Scope: A coded observation value describing the type of antimicrobial start.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7338/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 2336-6 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | New antibiotic start |
| 2337-4 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Continuation of antimicrobial |

Figure 195: Type of Antimicrobial Start Observation

<observation classCode="OBS" moodCode="EVN">

<templateId root="2.16.840.1.113883.10.20.5.6.230"

extension="2015-10-01" />

<code codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2335-8"

displayName="New outpatient start or continuation of inpatient course" />

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="2337-4"

displayName="Continuation of antimicrobial" />

</observation>

Urinary Catheter Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.171 (closed)]

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Table 516: Urinary Catheter Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a UTI Report](#S_Infection_Risk_Factors_Section_in_a_U) (required) | [Device Insertion Time and Location Procedure](#E_Device_Insertion_Time_and_Location_Pr) (optional)  [History of Object Presence Observation](#E_History_of_Object_Presence_Observatio) (optional) |

This observation records whether or not the person was using a urinary catheter in a UTI report.

If a urinary catheter is present, set the value of @negationInd to false. If the urinary catheter is not present, set the value of @negationInd to true.

Table 517: Urinary Catheter Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.171) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21460](#C_86-21460) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21461](#C_86-21461) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21462](#C_86-21462) |  |
| templateId | 1..1 | SHALL |  | [86-28293](#C_86-28293) |  |
| @root | 1..1 | SHALL |  | [86-28294](#C_86-28294) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-22114](#C_86-22114) |  |
| @root | 1..1 | SHALL |  | [86-22117](#C_86-22117) | 2.16.840.1.113883.10.20.5.6.171 |
| id | 1..1 | SHALL |  | [86-22115](#C_86-22115) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22727](#C_86-22727) | NA |
| code | 1..1 | SHALL |  | [86-21463](#C_86-21463) |  |
| @code | 1..1 | SHALL | CS | [86-22116](#C_86-22116) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28393](#C_86-28393) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| statusCode | 1..1 | SHALL |  | [86-21465](#C_86-21465) |  |
| @code | 1..1 | SHALL |  | [86-21466](#C_86-21466) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-21467](#C_86-21467) |  |
| @code | 1..1 | SHALL |  | [86-21468](#C_86-21468) | 3191-4 |
| @codeSystem | 1..1 | SHALL |  | [86-28394](#C_86-28394) | urn:oid:2.16.840.1.113883.6.277 (cdcNHSN) = 2.16.840.1.113883.6.277 |
| entryRelationship | 0..\* | MAY |  | [86-21469](#C_86-21469) |  |
| @typeCode | 1..1 | SHALL |  | [86-21470](#C_86-21470) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = REFR |
| @inversionInd | 1..1 | SHALL |  | [86-21471](#C_86-21471) | true |
| procedure | 1..1 | SHALL |  | [86-21472](#C_86-21472) | [Device Insertion Time and Location Procedure (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122](#E_Device_Insertion_Time_and_Location_Pr) |
| entryRelationship | 0..1 | MAY |  | [86-22728](#C_86-22728) |  |
| @typeCode | 1..1 | SHALL |  | [86-22729](#C_86-22729) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-22730](#C_86-22730) | [History of Object Presence Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.132](#E_History_of_Object_Presence_Observatio) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21460).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21461).
4. SHALL contain exactly one [1..1] @negationInd (CONF:86-21462).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28293) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28294).
6. SHALL contain exactly one [1..1] templateId (CONF:86-22114) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.171" (CONF:86-22117).
7. SHALL contain exactly one [1..1] id (CONF:86-22115).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22727).
8. SHALL contain exactly one [1..1] code (CONF:86-21463).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-22116).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28393).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-21465).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21466).
10. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:86-21467).
    1. This value SHALL contain exactly one [1..1] @code="3191-4" Urinary catheter present (CONF:86-21468).
    2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.277" (CodeSystem: cdcNHSN urn:oid:2.16.840.1.113883.6.277) (CONF:86-28394).
11. MAY contain zero or more [0..\*] entryRelationship (CONF:86-21469) such that it
    1. SHALL contain exactly one [1..1] @typeCode="REFR" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21470).
    2. SHALL contain exactly one [1..1] @inversionInd="true" (CONF:86-21471).
    3. SHALL contain exactly one [1..1] [Device Insertion Time and Location Procedure](#E_Device_Insertion_Time_and_Location_Pr) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.122) (CONF:86-21472).
12. MAY contain zero or one [0..1] entryRelationship (CONF:86-22728) such that it
    1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002) (CONF:86-22729).
    2. SHALL contain exactly one [1..1] [History of Object Presence Observation](#E_History_of_Object_Presence_Observatio) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.132) (CONF:86-22730).
    3. If a urinary catheter is not present (@negationInd="true"), this entryRelationship SHALL be present (CONF:86-22731).

Figure 196: Urinary Catheter Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId. -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Urinary Catheter Observation templateId-->

<templateId root="2.16.840.1.113883.10.20.5.6.171"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4"

code="ASSERTION"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.277"

codeSystemName="cdcNHSN"

code="3191-4"

displayName="Urinary Catheter Present"/>

<entryRelationship typeCode="REFR"

<procedure classCode="PROC" moodCode="EVN">

<!-- C-CDA Procedure Activity Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.14" />

<!-- HAI Device Insertion Time and Location Procedure templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.122" />

...

</entryRelationship>

</observation>

Vaccination Type Observation

[observation: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01 (closed)]

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Table 518: Vaccination Type Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Summary Data Section (HP-FLU)](#S_Summary_Data_Section_HPFLU) (required) |  |

This clinical statement represents the type of vaccination administered.

Table 519: Vaccination Type Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-61](#C_3311-61) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [3311-69](#C_3311-69) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [3311-46](#C_3311-46) |  |
| @root | 1..1 | SHALL |  | [3311-59](#C_3311-59) | 2.16.840.1.113883.10.20.5.6.242 |
| @extension | 1..1 | SHALL |  | [3311-60](#C_3311-60) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-47](#C_3311-47) |  |
| @code | 1..1 | SHALL |  | [3311-64](#C_3311-64) | 30956-7 |
| @codeSystem | 1..1 | SHALL |  | [3311-65](#C_3311-65) | urn:oid:2.16.840.1.113883.6.1 (LOINC) = 2.16.840.1.113883.6.1 |
| value | 1..1 | SHALL | CD | [3311-49](#C_3311-49) |  |
| @code | 1..1 | SHALL |  | [3311-70](#C_3311-70) | 6142004 |
| @codeSystem | 1..1 | SHALL |  | [3311-71](#C_3311-71) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| qualifier | 1..1 | SHALL |  | [3311-50](#C_3311-50) |  |
| name | 1..1 | SHALL |  | [3311-51](#C_3311-51) |  |
| @code | 1..1 | SHALL |  | [3311-66](#C_3311-66) | 260837004 |
| @codeSystem | 1..1 | SHALL |  | [3311-67](#C_3311-67) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |
| value | 1..1 | SHALL |  | [3311-68](#C_3311-68) |  |
| @code | 1..1 | SHALL |  | [3311-72](#C_3311-72) | 21864008 |
| @codeSystem | 1..1 | SHALL |  | [3311-73](#C_3311-73) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6) (CONF:3311-61).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001) (CONF:3311-69).
3. SHALL contain exactly one [1..1] templateId (CONF:3311-46) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.242" (CONF:3311-59).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-60).
4. SHALL contain exactly one [1..1] code (CONF:3311-47).
   1. This code SHALL contain exactly one [1..1] @code="30956-7" Type [Identifier] Vaccine (CONF:3311-64).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.1" (CodeSystem: LOINC urn:oid:2.16.840.1.113883.6.1) (CONF:3311-65).
5. SHALL contain exactly one [1..1] value with @xsi:type="CD" (CONF:3311-49).  
   Note: Vaccination type (defaults to Influenza)
   1. This value SHALL contain exactly one [1..1] @code="6142004" Influenza (CONF:3311-70).
   2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-71).
   3. This value SHALL contain exactly one [1..1] qualifier (CONF:3311-50) such that it
      1. SHALL contain exactly one [1..1] name (CONF:3311-51).
         1. This name SHALL contain exactly one [1..1] @code="260837004" subtype (CONF:3311-66).
         2. This name SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-67).
      2. SHALL contain exactly one [1..1] value (CONF:3311-68).  
         Note: Influenza subtype
         1. This value SHALL contain exactly one [1..1] @code="21864008" Seasonal (CONF:3311-72).
         2. This value SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-73).

Figure 197: Vaccination Type Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- [HAI R3D2] Vaccination Type Observation -->

<templateId root="2.16.840.1.113883.10.20.5.6.242" extension="2017-04-01" />

<code code="30956-7"

displayName="Type [Identifier] Vaccine"

codeSystem="2.16.840.1.113883.6.1"

codeSystemName="LOINC" />

<value xsi:type="CD" code="6142004"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Influenza">

<qualifier>

<!-- name is how value "qualifies" the code - Seasonal is a subtype of Influenza -->

<name code="260837004"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="subtype" />

<value code="21864008"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Seasonal" />

</qualifier>

</value>

</observation>

Vascular Access Type Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.172 (closed)]

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Table 520: Vascular Access Type Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)](#S_Risk_Factors_Section_in_an_Evidence_V2) (required) | [Buttonhole Cannulation Observation](#E_Buttonhole_Cannulation_Observation) (optional) |

This observation records the presence or absence of a type of vascular access. This clinical statement is used in the Risk Factors Section in an Evidence of Infection (Dialysis) Report.

NHSN protocol requires one such observation for each value in the NHSNVascularAccessType value set, and an additional such observation that records whether any other type of vascular access was present.

The value of effectiveTime/low represents the access placement date. NHSN protocol specifies that this date be recorded as year and month. CDA requires that the year be recorded as four digits: the form of an access placement date will be yyyymm. If the access placement date is not known, the value of @nullFlavor will be "NI".

When the vascular access type was present set the value of @negationInd to false and record the access placement date in effectiveTime/low/@value. When the vascular access type was absent, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'.

Table 521: Vascular Access Type Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.172) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-21474](#C_86-21474) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-21475](#C_86-21475) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-21476](#C_86-21476) |  |
| templateId | 1..1 | SHALL |  | [86-28295](#C_86-28295) |  |
| @root | 1..1 | SHALL |  | [86-28296](#C_86-28296) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-22037](#C_86-22037) |  |
| @root | 1..1 | SHALL |  | [86-22038](#C_86-22038) | 2.16.840.1.113883.10.20.5.6.172 |
| id | 1..1 | SHALL |  | [86-22721](#C_86-22721) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22722](#C_86-22722) |  |
| code | 1..1 | SHALL |  | [86-21477](#C_86-21477) |  |
| @code | 1..1 | SHALL |  | [86-21478](#C_86-21478) | ASSERTION |
| @codeSystem | 1..1 | SHALL |  | [86-28395](#C_86-28395) | urn:oid:2.16.840.1.113883.5.4 (HL7ActCode) = 2.16.840.1.113883.5.4 |
| text | 0..1 | MAY |  | [86-21479](#C_86-21479) |  |
| statusCode | 1..1 | SHALL |  | [86-21481](#C_86-21481) |  |
| @code | 1..1 | SHALL |  | [86-21482](#C_86-21482) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-21483](#C_86-21483) |  |
| low | 1..1 | SHALL |  | [86-21484](#C_86-21484) |  |
| value | 1..1 | SHALL |  | [86-21487](#C_86-21487) |  |
| entryRelationship | 0..1 | MAY |  | [86-21490](#C_86-21490) |  |
| @typeCode | 1..1 | SHALL |  | [86-21491](#C_86-21491) | urn:oid:2.16.840.1.113883.5.1002 (HL7ActRelationshipType) = COMP |
| observation | 1..1 | SHALL |  | [86-21492](#C_86-21492) | [Buttonhole Cannulation Observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.115](#E_Buttonhole_Cannulation_Observation) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-21474).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-21475).

When the vascular access type was present set the value of @negationInd to false. When the vascular access type was absent, set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:86-21476).
2. SHALL contain exactly one [1..1] templateId (CONF:86-28295) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28296).
3. SHALL contain exactly one [1..1] templateId (CONF:86-22037) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.172" (CONF:86-22038).
4. SHALL contain exactly one [1..1] id (CONF:86-22721).
   1. This id SHALL contain exactly one [1..1] @nullFlavor (CONF:86-22722).
5. SHALL contain exactly one [1..1] code (CONF:86-21477).
   1. This code SHALL contain exactly one [1..1] @code="ASSERTION" Assertion (CONF:86-21478).
   2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.5.4" (CodeSystem: HL7ActCode urn:oid:2.16.840.1.113883.5.4) (CONF:86-28395).
6. MAY contain zero or one [0..1] text (CONF:86-21479).
   1. The text element is to be used for additional information commenting on the vascular access type (CONF:86-21480).
7. SHALL contain exactly one [1..1] statusCode (CONF:86-21481).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-21482).
8. SHALL contain exactly one [1..1] effectiveTime (CONF:86-21483).
   1. This effectiveTime SHALL contain exactly one [1..1] low (CONF:86-21484).
      1. When the access placement date is not known, the value of @nullFlavor SHALL be NI (no information) (CONF:86-21485).
      2. When the access placement date is known, it SHALL be recorded as year and month (yyyymm) (CONF:86-21486).
9. SHALL contain exactly one [1..1] value (CONF:86-21487).
   1. To record the presence or absence of a vascular access type that is listed in the NHSN Vascular Access Type value set, the value of @code SHALL be selected from ValueSet 2.16.840.1.114222.4.11.6007 NHSNVascularAccessTypeCode DYNAMIC (CONF:86-21488).
   2. To record that another type of vascular access is present, set the value of @nullFlavor to OTH (other) (CONF:86-21489).

If the vascular access type is “Surgically constructed arteriovenous fistula” (SNOMED CT 438503005), this observation SHALL contain the following entryRelationship

1. MAY contain zero or one [0..1] entryRelationship (CONF:86-21490) such that it
   1. SHALL contain exactly one [1..1] @typeCode="COMP" (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:86-21491).
   2. SHALL contain exactly one [1..1] [Buttonhole Cannulation Observation](#E_Buttonhole_Cannulation_Observation) (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.115) (CONF:86-21492).

Table 522: NHSNVascularAccessTypeCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNVascularAccessTypeCode urn:oid:2.16.840.1.114222.4.11.6007  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the vascular access type.),(Data Element Scope: A coded observation value describing the type of vascular access.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6007/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 1117-1 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Tunneled (dialysis) |
| 1119-7 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Non-tunneled (dialysis) |
| 1969-5 | cdcNHSN | urn:oid:2.16.840.1.113883.6.277 | Catheter-graft hybrid |
| 439218000 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Surgically constructed arteriovenous graft (finding) |
| 439784005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Surgically constructed arteriovenous fistula (finding) |

Figure 198: Vascular Access Type Observation Example

<!-- When the vascular access type was present set the value of @negationInd to false and record the access placement date in effectiveTime/low/@value. When the vascular access type was absent, set the value of @negationInd to true and set effectiveTime/low/@nullFlavor='NA'. -->

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Vascular Access Type Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.172"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.5.4" code="ASSERTION"/>

<statusCode code="completed"/>

<!-- Access placement date; may be unknown @nullFlavor="NI" -->

<effectiveTime>

<low value="200708"/>

</effectiveTime>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

code="438503005"

displayName="Surgically constructed arteriovenous fistula"/>

<!-- If a fistula, specify whether buttonhole cannulation is used -->

<entryRelationship typeCode=”COMP”>

<observation classCode=”OBS” moodCode=”EVN”>

<!-- C-CDA Procedure Activity Observation -->

<templateId root="2.16.840.1.113883.10.20.22.4.13"/>

<!-- HAI Buttonhole Cannulation Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.115"/>

...

</observation>

</entryRelationship>

</observation>

Ventricular Assist Device (VAD) Present

[procedure: identifier urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01 (closed)]

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Table 523: Ventricular Assist Device (VAD) Present Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) (required) |  |

This procedure represents whether or not a ventricular assist device is present. The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the ventricular assist device is unknown. The ventricular assist device is represented by the participant.

If a ventricular assist device was present, set the value of @negationInd to false. If a ventricular assist device was not present, set the value of @negationInd to true.

Table 524: Ventricular Assist Device (VAD) Present Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| procedure (identifier: urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01) | | | | | |
| @classCode | 1..1 | SHALL |  | [3311-226](#C_3311-226) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = PROC |
| @moodCode | 1..1 | SHALL |  | [3311-227](#C_3311-227) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [3311-228](#C_3311-228) |  |
| templateId | 1..1 | SHALL |  | [3311-218](#C_3311-218) |  |
| @root | 1..1 | SHALL |  | [3311-224](#C_3311-224) | 2.16.840.1.113883.10.20.5.6.247 |
| @extension | 1..1 | SHALL |  | [3311-225](#C_3311-225) | 2017-04-01 |
| code | 1..1 | SHALL |  | [3311-215](#C_3311-215) |  |
| @nullFlavor | 1..1 | SHALL |  | [3311-28443](#C_3311-28443) | urn:oid:2.16.840.1.113883.5.1008 (HL7NullFlavor) = UNK |
| statusCode | 1..1 | SHALL |  | [3311-216](#C_3311-216) |  |
| @code | 1..1 | SHALL |  | [3311-221](#C_3311-221) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| participant | 0..\* | MAY |  | [3311-28445](#C_3311-28445) |  |
| @typeCode | 1..1 | SHALL |  | [3311-28447](#C_3311-28447) | urn:oid:2.16.840.1.113883.5.90 (HL7ParticipationType) = DEV |
| participantRole | 1..1 | SHALL |  | [3311-28446](#C_3311-28446) |  |
| @classCode | 1..1 | SHALL |  | [3311-28448](#C_3311-28448) | urn:oid:2.16.840.1.113883.5.110 (HL7RoleClass) = MANU |
| playingDevice | 1..1 | SHALL |  | [3311-28449](#C_3311-28449) |  |
| code | 1..1 | SHALL |  | [3311-28450](#C_3311-28450) |  |
| @code | 1..1 | SHALL |  | [3311-28451](#C_3311-28451) | 360064003 |
| @codeSystem | 1..1 | SHALL |  | [3311-28452](#C_3311-28452) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 2.16.840.1.113883.6.96 |

1. SHALL contain exactly one [1..1] @classCode="PROC" Procedure (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:3311-226).
2. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:3311-227).

If a ventricular assist device (VAD) was present, set the value of @negationInd to false. If a ventricular assist device (VAD) was not present set the value of @negationInd to true.

1. SHALL contain exactly one [1..1] @negationInd (CONF:3311-228).
2. SHALL contain exactly one [1..1] templateId (CONF:3311-218) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.247" (CONF:3311-224).
   2. SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-225).

The code for the procedure is represented with nullFlavor="UNK" as the procedure to implant the ventricular assist device is unknown.

1. SHALL contain exactly one [1..1] code (CONF:3311-215).
   1. This code SHALL contain exactly one [1..1] @nullFlavor="UNK" Unknown (CodeSystem: HL7NullFlavor urn:oid:2.16.840.1.113883.5.1008) (CONF:3311-28443).
2. SHALL contain exactly one [1..1] statusCode (CONF:3311-216).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:3311-221).

The ventricular assist device is represented by the participant.

1. MAY contain zero or more [0..\*] participant (CONF:3311-28445).
   1. The participant, if present, SHALL contain exactly one [1..1] @typeCode="DEV" Device (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:3311-28447).
   2. The participant, if present, SHALL contain exactly one [1..1] participantRole (CONF:3311-28446).
      1. This participantRole SHALL contain exactly one [1..1] @classCode="MANU" Manufactured product (CodeSystem: HL7RoleClass urn:oid:2.16.840.1.113883.5.110) (CONF:3311-28448).
      2. This participantRole SHALL contain exactly one [1..1] playingDevice (CONF:3311-28449).
         1. This playingDevice SHALL contain exactly one [1..1] code (CONF:3311-28450).
            1. This code SHALL contain exactly one [1..1] @code="360064003" Ventricular assist device (CONF:3311-28451).
            2. This code SHALL contain exactly one [1..1] @codeSystem="2.16.840.1.113883.6.96" (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96) (CONF:3311-28452).

Figure 199: Ventricular Assist Device (VAD) Present Example

<procedure classCode="PROC" moodCode="EVN" negationInd="false">

<!-- [HAI R3D2] Ventricular Assist Device (VAD) Present -->

<templateId root="2.16.840.1.113883.10.20.5.6.247" extension="2017-04-01" />

<code nullFlavor="UNK" />

<statusCode code="completed" />

<participant typeCode="DEV">

<participantRole classCode="MANU">

<playingDevice>

<code code="360064003"

codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED CT"

displayName="Ventricular assist device" />

</playingDevice>

</participantRole>

</participant>

</procedure>

Weight Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.173 (closed)]

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Table 525: Weight Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) (required)  [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) (required) |  |

This observation records a body weight. NHSN protocol requires that the value be an integer.

Table 526: Weight Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.173) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19702](#C_86-19702) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19703](#C_86-19703) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| @negationInd | 1..1 | SHALL |  | [86-19704](#C_86-19704) | false |
| templateId | 1..1 | SHALL |  | [86-28297](#C_86-28297) |  |
| @root | 1..1 | SHALL |  | [86-28298](#C_86-28298) | 2.16.840.1.113883.10.20.22.4.27 |
| templateId | 1..1 | SHALL |  | [86-19712](#C_86-19712) |  |
| @root | 1..1 | SHALL |  | [86-19714](#C_86-19714) | 2.16.840.1.113883.10.20.5.6.173 |
| id | 1..1 | SHALL |  | [86-19897](#C_86-19897) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22718](#C_86-22718) | NA |
| code | 1..1 | SHALL |  | [86-19705](#C_86-19705) |  |
| @code | 1..1 | SHALL |  | [86-19706](#C_86-19706) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 27113001 |
| statusCode | 1..1 | SHALL |  | [86-19707](#C_86-19707) |  |
| @code | 1..1 | SHALL |  | [86-19708](#C_86-19708) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| effectiveTime | 1..1 | SHALL |  | [86-19898](#C_86-19898) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22719](#C_86-22719) | NA |
| value | 1..1 | SHALL | PQ | [86-19709](#C_86-19709) |  |
| @value | 1..1 | SHALL |  | [86-19710](#C_86-19710) |  |
| @unit | 1..1 | SHALL |  | [86-28399](#C_86-28399) |  |

1. Conforms to Vital Sign Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.27).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19702).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19703).
4. SHALL contain exactly one [1..1] @negationInd="false" (CONF:86-19704).
5. SHALL contain exactly one [1..1] templateId (CONF:86-28297) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.27" (CONF:86-28298).
6. SHALL contain exactly one [1..1] templateId (CONF:86-19712) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.173" (CONF:86-19714).
7. SHALL contain exactly one [1..1] id (CONF:86-19897).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22718).
8. SHALL contain exactly one [1..1] code (CONF:86-19705).
   1. This code SHALL contain exactly one [1..1] @code="27113001" Body weight (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-19706).
9. SHALL contain exactly one [1..1] statusCode (CONF:86-19707).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19708).
10. SHALL contain exactly one [1..1] effectiveTime (CONF:86-19898).
    1. This effectiveTime SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22719).
11. SHALL contain exactly one [1..1] value with @xsi:type="PQ" (CONF:86-19709).
    1. This value SHALL contain exactly one [1..1] @value (CONF:86-19710).
       1. The value of @value SHALL be a non-negative real number representing the body weight in terms of the units specified in @unit (CONF:86-28400).
    2. This value SHALL contain exactly one [1..1] @unit (CONF:86-28399).

Figure 200: Weight Observation Example

<observation classCode="OBS" moodCode="EVN" negationInd="false">

<!-- C-CDA Vital Sign Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.27"/>

<!-- HAI Weight Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.5.6.173"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.6.96"

codeSystemName="SNOMED"

code="27113001"

displayName="Body Weight"/>

<statusCode code="completed"/>

<effectiveTime nullFlavor="NA"/>

<value xsi:type="PQ" value="65" unit="kg"/>

</observation>

Wound Class Observation

[observation: identifier urn:oid:2.16.840.1.113883.10.20.5.6.174 (closed)]

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Table 527: Wound Class Observation Contexts

| Contained By: | Contains: |
| --- | --- |
| [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) (required) |  |

NHSN patient safety protocol on this topic is an adaptation of (not a change to) the American College of Surgeons (ACoS) definitions, which are the definitions used by SNOMED. Thus, SNOMED wound-class codes are appropriate for use with this observation.

Table 528: Wound Class Observation Constraints Overview

| XPath | Card. | Verb | Data Type | CONF# | Value |
| --- | --- | --- | --- | --- | --- |
| observation (identifier: urn:oid:2.16.840.1.113883.10.20.5.6.174) | | | | | |
| @classCode | 1..1 | SHALL |  | [86-19679](#C_86-19679) | urn:oid:2.16.840.1.113883.5.6 (HL7ActClass) = OBS |
| @moodCode | 1..1 | SHALL |  | [86-19680](#C_86-19680) | urn:oid:2.16.840.1.113883.5.1001 (HL7ActMood) = EVN |
| templateId | 1..1 | SHALL |  | [86-28299](#C_86-28299) |  |
| @root | 1..1 | SHALL |  | [86-28300](#C_86-28300) | 2.16.840.1.113883.10.20.22.4.4 |
| templateId | 1..1 | SHALL |  | [86-19689](#C_86-19689) |  |
| @root | 1..1 | SHALL |  | [86-19690](#C_86-19690) | 2.16.840.1.113883.10.20.5.6.174 |
| id | 1..1 | SHALL |  | [86-19691](#C_86-19691) |  |
| @nullFlavor | 1..1 | SHALL |  | [86-22717](#C_86-22717) | NA |
| code | 1..1 | SHALL |  | [86-19681](#C_86-19681) |  |
| @code | 1..1 | SHALL |  | [86-19682](#C_86-19682) | urn:oid:2.16.840.1.113883.6.96 (SNOMED CT) = 420089007 |
| statusCode | 1..1 | SHALL |  | [86-19683](#C_86-19683) |  |
| @code | 1..1 | SHALL |  | [86-19684](#C_86-19684) | urn:oid:2.16.840.1.113883.5.14 (HL7ActStatus) = completed |
| value | 1..1 | SHALL | CD | [86-19685](#C_86-19685) | urn:oid:2.16.840.1.113883.13.9 (NHSNWoundClassCode) |

1. Conforms to Problem Observation template (identifier: urn:oid:2.16.840.1.113883.10.20.22.4.4).
2. SHALL contain exactly one [1..1] @classCode="OBS" Observation (CodeSystem: HL7ActClass urn:oid:2.16.840.1.113883.5.6 STATIC) (CONF:86-19679).
3. SHALL contain exactly one [1..1] @moodCode="EVN" Event (CodeSystem: HL7ActMood urn:oid:2.16.840.1.113883.5.1001 STATIC) (CONF:86-19680).
4. SHALL contain exactly one [1..1] templateId (CONF:86-28299) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.22.4.4" (CONF:86-28300).
5. SHALL contain exactly one [1..1] templateId (CONF:86-19689) such that it
   1. SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.6.174" (CONF:86-19690).
6. SHALL contain exactly one [1..1] id (CONF:86-19691).
   1. This id SHALL contain exactly one [1..1] @nullFlavor="NA" (CONF:86-22717).
7. SHALL contain exactly one [1..1] code (CONF:86-19681).
   1. This code SHALL contain exactly one [1..1] @code="420089007" CDC Wound Classification Category (CodeSystem: SNOMED CT urn:oid:2.16.840.1.113883.6.96 STATIC) (CONF:86-19682).
8. SHALL contain exactly one [1..1] statusCode (CONF:86-19683).
   1. This statusCode SHALL contain exactly one [1..1] @code="completed" Completed (CodeSystem: HL7ActStatus urn:oid:2.16.840.1.113883.5.14 STATIC) (CONF:86-19684).
9. SHALL contain exactly one [1..1] value with @xsi:type="CD", where the code SHALL be selected from ValueSet [NHSNWoundClassCode](#NHSNWoundClassCode) urn:oid:2.16.840.1.113883.13.9 DYNAMIC (CONF:86-19685).

Table 529: NHSNWoundClassCode

|  |  |  |  |
| --- | --- | --- | --- |
| Value Set: NHSNWoundClassCode urn:oid:2.16.840.1.113883.13.9  (Clinical Focus: NHSN surveillance reporting: This value set contains codes describing the wound class.),(Data Element Scope: A coded observation value describing the wound class.),(Inclusion Criteria: ),(Exclusion Criteria: )  This value set was imported on 10/14/2020 with a version of Latest.  Value Set Source: <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.9/expansion> | | | |
| Code | Code System | Code System OID | Print Name |
| 418115006 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Centers for Disease Control and Prevention Class II/Clean-contaminated (finding) |
| 418422005 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Centers for Disease Control and Prevention Class IV/Dirty-infected (finding) |
| 418780004 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Centers for Disease Control and Prevention Class I/Clean (finding) |
| 419877002 | SNOMED CT | urn:oid:2.16.840.1.113883.6.96 | Centers for Disease Control and Prevention Class III/Contaminated (finding) |

Figure 201: Wound Class Observation Example

<observation classCode="OBS" moodCode="EVN">

<!-- C-CDA Problem Observation templateId -->

<templateId root="2.16.840.1.113883.10.20.22.4.4"/>

<!-- HAI Wound Class Observation templateID -->

<templateId root="2.16.840.1.113883.10.20.5.6.174"/>

<id nullFlavor="NA"/>

<code codeSystem="2.16.840.1.113883.6.96"

code="420089007"

displayName="Wound Classification Category"/>

<statusCode code="completed"/>

<value xsi:type="CD"

codeSystem="2.16.840.1.113883.6.96"

code="418115006"

displayName="CDC Wound Class II/Clean Contaminated"/>

</observation>

# Template Ids in This Guide

Table 530: Template List

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [Outpatient Procedure Component Denominator for Procedure Report](#D__Outpatient_Procedure_Component_Denom) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.56:2019-04-01 |
| [Antimicrobial Resistance Option (ARO) Summary Report (V3)](#D_ARO_Summary_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01 |
| [Antimicrobial Use (AUP) Summary Report (V2)](#D_Antimicrobial_Use_AUP_Summary_Report_) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01 |
| [HAI AUR Antimicrobial Resistance Option (ARO) Report (V5)](#D_HAI_AUR_Antimicrobial_Resistance_V5) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.31:2020-04-01 |
| [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.32:2021-01-01 |
| [HAI Central-Line Insertion Practice Numerator Report (V2)](#D_HAI_CentralLine_Insertion_Practice_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.36:2014-12-01 |
| [HAI Evidence of Infection (Dialysis) Report (V6)](#D_HAI_Evidence_of_Infection_Dialysis_V6) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.37:2019-04-01 |
| [HAI Laboratory-Identified Organism (LIO) Report (V2)](#D_HAI_LaboratoryIdentified_Organism_LV2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.38:2014-12-01 |
| [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) | document | urn:oid:2.16.840.1.113883.10.20.5.4.28 |
| [HAI Procedure Denominator Report (V2)](#D_HAI_Procedure_Denominator_Report_V2) | document | urn:oid:2.16.840.1.113883.10.20.5.35.2 |
| [HAI Single-Person Report Generic Constraints](#D_HAI_SinglePerson_Report_Generic_Const) | document | urn:oid:2.16.840.1.113883.10.20.5.4.27 |
| [HAI Surgical Site Infection Report (SSI) (V3)](#D_HAI_Surgical_Site_Infection_Report_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2021-01-01 |
| [HAI Urinary Tract Infection Numerator Report (UTI) (V2)](#D_HAI_Urinary_Tract_Infection_Num_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.34:2021-01-01 |
| [Healthcare Associated Infection Report](#D_Healthcare_Associated_Infection_Repor) | document | urn:oid:2.16.840.1.113883.10.20.5.4.25 |
| [Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report](#D_Healthcare_Personnel_Influenza_Vaccin) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01 |
| [Hemovigilance (HV) Summary Report (V2)](#D_Hemovigilance_HV_Summary_Report_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01 |
| [Intensive Care Unit (ICU) Summary Report (V3)](#D_Intensive_Care_Unit_ICU_Summary_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01 |
| [Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report](#D_Late_Onset_SepsisMeningitis_Denominat) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.58:2019-04-01 |
| [Late Onset Sepsis/Meningitis Event (LOS) Report (V2)](#D_Late_Onset_SepsisMeningitis_Event_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.53:2019-04-01 |
| [Neonatal Intensive Care Unit (NICU) Summary Report (V3)](#D_Neonatal_Intensive_Care_Unit_NICU_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01 |
| [Outpatient Procedure Component Denominator for Same Day Outcome Measures Report](#D_Outpatient_Procedure_Component_Denomi) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01 |
| [Outpatient Procedure Component Same Day Outcome Measures Event Report](#D_Outpatient_Procedure_Component_Same_D) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.54:2019-04-01 |
| [Outpatient Procedure Surgical Site Infection (SSI) Event Report](#D_Outpatient_Procedure_Surgical_Site_In) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.57:2019-04-01 |
| [Prevention Process and Outcome Measures (POM) Summary Report (V3)](#D_Prevention_Process_and_Outcome_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.43:2018-04-01 |
| [Specialty Care Area (SCA) Summary Report (V3)](#D_Specialty_Care_Area_SCA_Summary_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01 |
| [Vascular Access Type Report (VAT) Summary Report (V3)](#D_Vascular_Access_Type_Report_VAT_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01 |
| [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.51:2021-01-01 |
| [COVID-19 Section (V2)](#S_COVID19_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01 |
| [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01 |
| [Encounters Section in a LIO Report (V2)](#S_Encounters_Section_in_a_LIO_Report_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.44:2014-12-01 |
| [Encounters Section in a LOS/Men Denominator](#S_Encounters_Section_in_a_LOSMen_Denomi) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01 |
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| [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) | section | urn:oid:2.16.840.1.113883.10.20.5.5.39.2 |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01 |
| [Infection Risk Factors Section in a CLIP Report (V2)](#S_Infection_Risk_Factors_Section_in_a_C) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01 |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) | section | urn:oid:2.16.840.1.113883.10.20.5.5.35 |
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| [Antimicrobial Susceptibility Final Interpretation Result](#E_Antimicrobial_Susceptibility_Final_In) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.175 |
| [Antimicrobial Susceptibility Isolate Participant (V2)](#E_Antimicrobial_Susceptibility_Iso_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01 |
| [Antimicrobial Susceptibility Result Observation (V3)](#E_Antimicrobial_Susceptibility_Res_Obs) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01 |
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| [Antimicrobial Susceptibility Tests Organizer (V3)](#E_Antimicrobial_Susceptibility_Tests_Or) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01 |
| [APRV or Related at Time of VAE Observation](#E_APRV_or_Related_at_Time_of_VAE_Observ) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01 |
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| [ARO Staph Aureus Specific Tests Result Observation](#E_ARO_Staph_Aureus_Specific_Tests_Resul) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.189 |
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| [Carbapenemase Type Identified Observation](#E_Carbapenemase_Type_Identified_Observa) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01 |
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| [Death Observation in an Evidence of Infection (Dialysis) Report](#E_Death_Observation_in_an_Evidence_of_I) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.121 |
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| [Dialysis Clinic Admission Clinical Statement](#E_Dialysis_Clinic_Admission_Clinical_St) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.124 |
| [Dialysis Patient Observation](#E_Dialysis_Patient_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.125 |
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| [Epidermolysis Bullosa Observation](#E_Epidermolysis_Bullosa_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01 |
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| [Imputability Observation](#E_Imputability_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.134 |
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| [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.138 |
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| [No Hemovigilance Adverse Reactions Reported This Month Observation](#E_No_Hemovigilance_Adverse_Reactions_Re) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01 |
| [No Hemovigilance Incidents Reported This Month Observation](#E_No_Hemovigilance_Incidents_Reported_T) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01 |
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| [Primary C. Difficile Testing Method This Quarter](#E_Primary_C_Difficile_Testing_Method_Th) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01 |
| [Prior Discharge Encounter (V2)](#E_Prior_Discharge_Encounter_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01 |
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| [Procedure Details in an OPC Denominator for Procedure](#E_Procedure_Details_in_an_OPC_Denominat) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01 |
| [Procedure Details in an OPC SSI Event](#E_Procedure_Details_in_an_OPC_SSI_Event) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01 |
| [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.156 |
| [Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation](#E_Pus_Present_in_Specimen_Site_and_Matc) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01 |
| [Pus, Redness, or Increased Swelling Observation (V2)](#E_Pus_Redness_or_Increased_Swelling_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01 |
| [Reason for Procedure Observation](#E_Reason_for_Procedure_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.158 |
| [Recorder Observation](#E_Recorder_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.159 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Revision Associated with Prior Infection Observation](#Revision_Associated_with_Prior_Infectio) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.204 |
| [Same Day Outcome Measure Observation (V3)](#E_Same_Day_Outcome_Measure_Obs_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01 |
| [Same Day Outcome Measures Organizer (V3)](#E_Same_Day_Outcome_Measures_Organizer_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01 |
| [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.160 |
| [Skin Preparation Clinical Statement (V2)](#E_Skin_Preparation_Clinical_Statement_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01 |
| [Skin-Preparation Solutions Applied Organizer (V2)](#E_SkinPreparation_Solutions_Applied_Org) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01 |
| [Solutions Dried Observation](#E_Solutions_Dried_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.163 |
| [Specimen Collection Encounter (ARO) (V2)](#E_Specimen_Collection_Encounter_ARO_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01 |
| [Specimen Collection Encounter (LIO)](#E_Specimen_Collection_Encounter_LIO) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.164 |
| [Specimen Collection Procedure (ARO) (V4)](#E_Specimen_Collection_Procedure_ARO_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2020-04-01 |
| [Specimen Collection Procedure (LIO)](#E_Specimen_Collection_Procedure_LIO) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.165 |
| [Spinal Fusion Level Observation](#E_Spinal_Fusion_Level_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.166 |
| [SSI Detected Using Toolkit Observation](#E_SSI_Detected_Using_Toolkit_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.206 |
| [SSI Detection Method](#E_SSI_Detection_Method) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01 |
| [Sterile Barriers Applied Clinical Statement](#E_Sterile_Barriers_Applied_Clinical_Sta) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.167 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01 |
| [Summary Data Observation (AUP)](#E_Summary_Data_Observation_AUP) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.194 |
| [Summary Data Observation (HV)](#E_Summary_Data_Observation_HV) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01 |
| [Summary Data Observation (POM)](#E_Summary_Data_Observation_POM) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.192 |
| [Summary Data Observation (VAT)](#E_Summary_Data_Observation_VAT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.195 |
| [Summary Encounter](#E_Summary_Encounter) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.184 |
| [Summary Encounter (ARO) (V3)](#E_Summary_Encounter_ARO_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01 |
| [Summary Encounter (AUP) (V2)](#E_Summary_Encounter_AUP_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01 |
| [Summary Encounter (HP-FLU)](#E_Summary_Encounter_HPFLU) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01 |
| [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01 |
| [Summary Encounter (NICU)](#E_Summary_Encounter_NICU) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.191 |
| [Summary Encounter (POM)](#E_Summary_Encounter_POM) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.193 |
| [Summary Encounter (VAT)](#E_Summary_Encounter_VAT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.196 |
| [Summary Encounter Patient Presence (AUP) (V2)](#E_Summary_Encounter_Patient_Pres_AU) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01 |
| [Suspected Source Observation](#E_Suspected_Source_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.168 |
| [Transient Patient Observation](#E_Transient_Patient_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.169 |
| [Trauma Observation](#E_Trauma_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.170 |
| [Type of Antimicrobial Start Observation](#E_Type_of_Antimicrobial_Start_Observati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01 |
| [Urinary Catheter Observation](#E_Urinary_Catheter_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.171 |
| [Vaccination Type Observation](#E_Vaccination_Type_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01 |
| [Vascular Access Type Observation](#E_Vascular_Access_Type_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.172 |
| [Ventricular Assist Device (VAD) Present](#E_Ventricular_Assist_Device_VAD_Present) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01 |
| [Weight Observation](#E_Weight_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.173 |
| [Wound Class Observation](#E_Wound_Class_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.174 |

Table 531: Template Containments

| Template Title | Template Type | templateId |
| --- | --- | --- |
| [Outpatient Procedure Component Denominator for Procedure Report](#D__Outpatient_Procedure_Component_Denom) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.56:2019-04-01 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Procedure Details Section in an OPC Denominator for Procedure](#S_Procedure_Details_Section_in_an_OPC_D) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.67:2019-04-01 |
| [Procedure Details in an OPC Denominator for Procedure](#E_Procedure_Details_in_an_OPC_Denominat) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.259:2019-04-01 |
| [Anesthesia Administration Clinical Statement](#E_Anesthesia_Administration_Clinical_St) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.112 |
| [Infection Risk Factors Section in an OPC Denominator for Procedure](#S_Infection_Risk_Factors_Section_in_an_) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.68:2019-04-01 |
| [ASA Class Observation](#E_ASA_Class_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.113 |
| [Weight Observation](#E_Weight_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.173 |
| [Height Observation](#E_Height_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.131 |
| [Diabetes Mellitus Observation](#E_Diabetes_Mellitus_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.123 |
| [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.156 |
| [Wound Class Observation](#E_Wound_Class_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.174 |
| [Endoscope Used Clinical Statement](#E_Endoscope_Used_Clinical_Statement) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.128 |
| [Antimicrobial Resistance Option (ARO) Summary Report (V3)](#D_ARO_Summary_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.46:2019-04-01 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Report No Events Section](#S_Report_No_Events_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Summary Data Section (ARO) (V3)](#S_Summary_Data_Section_ARO_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.52:2019-04-01 |
| [Summary Encounter (ARO) (V3)](#E_Summary_Encounter_ARO_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.199:2019-04-01 |
| [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01 |
| [Antimicrobial Use (AUP) Summary Report (V2)](#D_Antimicrobial_Use_AUP_Summary_Report_) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.44:2015-04-01 |
| [Summary Data Section (AUP) (V2)](#S_Summary_Data_Section_AUP_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.51:2015-04-01 |
| [Summary Encounter Patient Presence (AUP) (V2)](#E_Summary_Encounter_Patient_Pres_AU) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.197:2015-04-01 |
| [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01 |
| [Summary Encounter (AUP) (V2)](#E_Summary_Encounter_AUP_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.198:2015-04-01 |
| [Summary Data Observation (AUP)](#E_Summary_Data_Observation_AUP) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.194 |
| [Summary Data Observation (AU/AR)](#E_Summary_Data_Observation_AUAR) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.229:2015-04-01 |
| [HAI AUR Antimicrobial Resistance Option (ARO) Report (V5)](#D_HAI_AUR_Antimicrobial_Resistance_V5) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.31:2020-04-01 |
| [Findings Section in an ARO Report (V4)](#S_Findings_Section_in_an_ARO_Report_V4) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.32:2020-04-01 |
| [Specimen Collection Procedure (ARO) (V4)](#E_Specimen_Collection_Procedure_ARO_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.188:2020-04-01 |
| [Specimen Collection Encounter (ARO) (V2)](#E_Specimen_Collection_Encounter_ARO_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.187:2020-04-01 |
| [Patient Admitted This Encounter Observation](#E_Patient_Admitted_This_Encounter_Obser) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.266:2020-04-01 |
| [Isolate Susceptibility Tests Organizer (V4)](#E_Isolate_Susceptibility_Tests_Org_V4) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.201:2020-04-01 |
| [ARO Staph Aureus Specific Tests Organizer](#E_ARO_Staph_Aureus_Specific_Tests_Organ) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.190 |
| [ARO Staph Aureus Specific Tests Result Observation](#E_ARO_Staph_Aureus_Specific_Tests_Resul) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.189 |
| [Antimicrobial Susceptibility Tests Organizer (V3)](#E_Antimicrobial_Susceptibility_Tests_Or) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.177:2016-08-01 |
| [Antimicrobial Susceptibility Final Interpretation Result](#E_Antimicrobial_Susceptibility_Final_In) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.175 |
| [Antimicrobial Susceptibility Result Organizer (V3)](#E_Antimicrobial_Susceptibility_Result_O) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.200:2016-08-01 |
| [Antimicrobial Susceptibility Result Observation (V3)](#E_Antimicrobial_Susceptibility_Res_Obs) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.186:2016-08-01 |
| [Antimicrobial Susceptibility Isolate Participant (V2)](#E_Antimicrobial_Susceptibility_Iso_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.202:2020-04-01 |
| [HAI Bloodstream Infection Report (BSI) (V4)](#D_HAI_Bloodstream_Infection_Report_V4) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.32:2021-01-01 |
| [Infection Details Section in a BSI Report](#S_Infection_Details_Section_in_a_BSI_Re) | section | urn:oid:2.16.840.1.113883.10.20.5.5.38 |
| [Death Observation](#E_Death_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.120 |
| [Infection Contributed to Death Observation](#E_Infection_Contributed_to_Death_Observ) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.136 |
| [Post-Procedure Observation](#E_PostProcedure_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.150 |
| [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.154 |
| [Infection-Type Observation](#E_InfectionType_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.139 |
| [Bloodstream Infection Evidence Type Observation](#E_Bloodstream_Infection_Evidence_Type_O) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.114 |
| [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.160 |
| [Infection Condition Observation](#E_Infection_Condition_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.135 |
| [Occasion of HAI Detection Observation](#E_Occasion_of_HAI_Detection_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.144 |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.180 |
| [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.119 |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) | section | urn:oid:2.16.840.1.113883.10.20.5.5.45 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [MDRO/CDI Observation](#E_MDROCDI_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.142 |
| [Findings Organizer](#E_Findings_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.182 |
| [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.147 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.126 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Infection Risk Factors Section in a BSI Report (V3)](#S_Infection_Risk_Factors_Sect_BSI_V3) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.33:2018-04-01 |
| [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.137 |
| [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.138 |
| [Device Insertion Time and Location Procedure](#E_Device_Insertion_Time_and_Location_Pr) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.122 |
| [Hemodialysis Catheter Present](#E_Hemodialysis_Catheter_Present) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.245:2017-04-01 |
| [Extracorporeal Life Support Present](#E_Extracorporeal_Life_Support_Present) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.246:2017-04-01 |
| [Ventricular Assist Device (VAD) Present](#E_Ventricular_Assist_Device_VAD_Present) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.247:2017-04-01 |
| [Known or Suspected Munchhausen's By Proxy Observation](#E_Known_or_Suspected_Munchhausens_By_Pr) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.250:2018-04-01 |
| [Observed or Suspected Patient Injection into Vascular Line Observation](#E_Observed_or_Suspected_Patient_Injecti) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.251:2018-04-01 |
| [Epidermolysis Bullosa Observation](#E_Epidermolysis_Bullosa_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.252:2018-04-01 |
| [Pus Present in Specimen Site and Matching Organism in Blood and Specimen Observation](#E_Pus_Present_in_Specimen_Site_and_Matc) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.253:2018-04-01 |
| [COVID-19 Section (V2)](#S_COVID19_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01 |
| [NHSN COVID-19 Condition Observation (V2)](#E_NHSN_COVID19_Condition_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01 |
| [HAI Central-Line Insertion Practice Numerator Report (V2)](#D_HAI_CentralLine_Insertion_Practice_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.36:2014-12-01 |
| [Procedure Details Section in a CLIP Report](#S_Procedure_Details_Section_in_a_CLIP_R) | section | urn:oid:2.16.840.1.113883.10.20.5.5.42 |
| [Procedure Details Clinical Statement in a CLIP Report](#E_Procedure_Details_CLIP) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.155 |
| [PICC/IV Team](#E_PICCIV_Team) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.148 |
| [Recorder Observation](#E_Recorder_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.159 |
| [Reason for Procedure Observation](#E_Reason_for_Procedure_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.158 |
| [Guidewire Used Clinical Statement](#E_Guidewire_Used_Clinical_Statement) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.129 |
| [Infection Risk Factors Section in a CLIP Report (V2)](#S_Infection_Risk_Factors_Section_in_a_C) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.34:2014-12-01 |
| [Central-Line Insertion Practice Clinical Statement (V2)](#E_CentralLine_Insertion_Practice_Clinic) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.116:2014-12-01 |
| [Solutions Dried Observation](#E_Solutions_Dried_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.163 |
| [Central-Line Insertion Preparation Organizer (V2)](#E_CentralLine_Insertion_Preparation_Org) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.179:2014-12-01 |
| [Sterile Barriers Applied Clinical Statement](#E_Sterile_Barriers_Applied_Clinical_Sta) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.167 |
| [Hand Hygiene Performed Clinical Statement](#E_Hand_Hygiene_Performed_Clinical_State) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.130 |
| [Skin-Preparation Solutions Applied Organizer (V2)](#E_SkinPreparation_Solutions_Applied_Org) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.183:2014-12-01 |
| [Skin Preparation Clinical Statement (V2)](#E_Skin_Preparation_Clinical_Statement_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.162:2014-12-01 |
| [Contraindicated Observation (V2)](#E_Contraindicated_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.118:2014-12-01 |
| [Contraindication Type Observation](#E_Contraindication_Type_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.216:2014-12-01 |
| [Antimicrobial Coated Catheter Used Observation](#E_Antimicrobial_Coated_Catheter_Used_Ob) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.217:2014-12-01 |
| [HAI Evidence of Infection (Dialysis) Report (V6)](#D_HAI_Evidence_of_Infection_Dialysis_V6) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.37:2019-04-01 |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) | section | urn:oid:2.16.840.1.113883.10.20.5.5.45 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [MDRO/CDI Observation](#E_MDROCDI_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.142 |
| [Findings Organizer](#E_Findings_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.182 |
| [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.147 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.126 |
| [Risk Factors Section in an Evidence of Infection (Dialysis) Report (V2)](#S_Risk_Factors_Section_in_an_Evidence_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.37:2015-10-01 |
| [Vascular Access Type Observation](#E_Vascular_Access_Type_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.172 |
| [Buttonhole Cannulation Observation](#E_Buttonhole_Cannulation_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.115 |
| [Dialysis Patient Observation](#E_Dialysis_Patient_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.125 |
| [Transient Patient Observation](#E_Transient_Patient_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.169 |
| [Dialyzer Reused Observation](#Dialyzer_Reused_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.231:2015-10-01 |
| [Details Section in an Evidence of Infection (Dialysis) Report (V6)](#S_Details_Section_in_an_EOID_V6) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.41:2019-04-01 |
| [Death Observation in an Evidence of Infection (Dialysis) Report](#E_Death_Observation_in_an_Evidence_of_I) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.121 |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.180 |
| [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.119 |
| [Hospital Admission Clinical Statement](#E_Hospital_Admission_Clinical_Statement) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.133 |
| [Dialysis Clinic Admission Clinical Statement](#E_Dialysis_Clinic_Admission_Clinical_St) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.124 |
| [Loss of Vascular Access Observation](#E_Loss_of_Vascular_Access_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.203 |
| [Infection Indicator Organizer (V5)](#E_Infection_Indicator_Organizer_V5) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.181:2019-04-01 |
| [IV Antifungal Start Clinical Statement](#E_IV_Antifungal_Start_Clinical_Statemen) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.141 |
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| [Type of Antimicrobial Start Observation](#E_Type_of_Antimicrobial_Start_Observati) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.230:2015-10-01 |
| [Blood Sample Collected for Culture Observation](#E_Blood_Sample_Collected_for_Culture_Ob) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.239:2016-08-01 |
| [Positive Blood Culture Observation (V3)](#E_Positive_Blood_Culture_Observation_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.149:2019-04-01 |
| [Suspected Source Observation](#E_Suspected_Source_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.168 |
| [Imputability Observation](#E_Imputability_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.134 |
| [Blood Collection Location](#Blood_Collection_Location) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.219:2014-12-01 |
| [Pus, Redness, or Increased Swelling Observation (V2)](#E_Pus_Redness_or_Increased_Swelling_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.157:2019-04-01 |
| [HAI Laboratory-Identified Organism (LIO) Report (V2)](#D_HAI_LaboratoryIdentified_Organism_LV2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.38:2014-12-01 |
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| [Prior Discharge Encounter (V2)](#E_Prior_Discharge_Encounter_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.151:2014-12-01 |
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| [Last Physical Overnight Location Encounter](#E_Last_Physical_Overnight_Location_Enco) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.220:2014-12-01 |
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| [Pathogen Identified Observation (LIO) (V2)](#E_Pathogen_Identified_Observation_LIO_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.146:2014-12-01 |
| [Specimen Collection Procedure (LIO)](#E_Specimen_Collection_Procedure_LIO) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.165 |
| [Specimen Collection Encounter (LIO)](#E_Specimen_Collection_Encounter_LIO) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.164 |
| [Bacterial Isolate Tested for Carbapenemase Observation](#E_Bacterial_Isolate_Tested_for_Carbapen) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.222:2014-12-01 |
| [Carbapenemase Test Organizer](#E_Carbapenemase_Test_Organizer) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.223:2014-12-01 |
| [Carbapenemase Test Observation](#E_Carbapenemase_Test_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.224:2014-12-01 |
| [Positive Test for Carbapenemase Observation](#E_Positive_Test_for_Carbapenemase_Obser) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.225:2014-12-01 |
| [Carbapenemase Type Identified Observation](#E_Carbapenemase_Type_Identified_Observa) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.226:2014-12-01 |
| [HAI Population Summary Report Generic Constraints](#D_HAI_Population_Summary_Report_Generic) | document | urn:oid:2.16.840.1.113883.10.20.5.4.28 |
| [HAI Procedure Denominator Report (V2)](#D_HAI_Procedure_Denominator_Report_V2) | document | urn:oid:2.16.840.1.113883.10.20.5.35.2 |
| [Infection Risk Factors Section in a Procedure Report](#S_Infection_Risk_Factors_Section_in_a_P) | section | urn:oid:2.16.840.1.113883.10.20.5.5.35 |
| [ASA Class Observation](#E_ASA_Class_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.113 |
| [Weight Observation](#E_Weight_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.173 |
| [Height Observation](#E_Height_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.131 |
| [Trauma Observation](#E_Trauma_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.170 |
| [Diabetes Mellitus Observation](#E_Diabetes_Mellitus_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.123 |
| [Procedure Risk Factors Clinical Statement in a Procedure Report](#E_Procedure_Risk_Factors_Clinical_State) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.156 |
| [Wound Class Observation](#E_Wound_Class_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.174 |
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| [Procedure Details Section in a Procedure Report (V2)](#Procedure_Details_Section_in_a_Procedur) | section | urn:oid:2.16.840.1.113883.10.20.5.5.43.2 |
| [Procedure Details Clinical Statement in a Procedure Report (V2)](#Procedure_Details_Clinical_Statement_in) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.153.2 |
| [Anesthesia Administration Clinical Statement](#E_Anesthesia_Administration_Clinical_St) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.112 |
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| [Revision Associated with Prior Infection Observation](#Revision_Associated_with_Prior_Infectio) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.204 |
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| [HAI Surgical Site Infection Report (SSI) (V3)](#D_HAI_Surgical_Site_Infection_Report_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2021-01-01 |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) | section | urn:oid:2.16.840.1.113883.10.20.5.5.45 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [MDRO/CDI Observation](#E_MDROCDI_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.142 |
| [Findings Organizer](#E_Findings_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.182 |
| [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.147 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.126 |
| [Infection Details Section in an SSI Report (V2)](#S_Infection_Details_Section_in_an_SSI_V2) | section | urn:oid:2.16.840.1.113883.10.20.5.5.39.2 |
| [Death Observation](#E_Death_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.120 |
| [Infection Contributed to Death Observation](#E_Infection_Contributed_to_Death_Observ) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.136 |
| [Infection-Type Observation](#E_InfectionType_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.139 |
| [Bloodstream Infection Evidence Type Observation](#E_Bloodstream_Infection_Evidence_Type_O) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.114 |
| [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.160 |
| [Infection Condition Observation](#E_Infection_Condition_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.135 |
| [Occasion of HAI Detection Observation](#E_Occasion_of_HAI_Detection_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.144 |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.180 |
| [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.119 |
| [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.154 |
| [Infection Present at the Time of Surgery Observation](#E_Infection_Present_at_the_Time_of_Surg) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.205 |
| [SSI Detected Using Toolkit Observation](#E_SSI_Detected_Using_Toolkit_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.206 |
| [COVID-19 Section (V2)](#S_COVID19_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01 |
| [NHSN COVID-19 Condition Observation (V2)](#E_NHSN_COVID19_Condition_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01 |
| [HAI Urinary Tract Infection Numerator Report (UTI) (V2)](#D_HAI_Urinary_Tract_Infection_Num_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.34:2021-01-01 |
| [Infection Risk Factors Section in a UTI Report](#S_Infection_Risk_Factors_Section_in_a_U) | section | urn:oid:2.16.840.1.113883.10.20.5.5.36 |
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| [Device Insertion Time and Location Procedure](#E_Device_Insertion_Time_and_Location_Pr) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.122 |
| [History of Object Presence Observation](#E_History_of_Object_Presence_Observatio) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.132 |
| [Infection Details Section in a UTI Report](#S_Infection_Details_Section_in_a_UTI_Re) | section | urn:oid:2.16.840.1.113883.10.20.5.5.40 |
| [Death Observation](#E_Death_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.120 |
| [Infection Contributed to Death Observation](#E_Infection_Contributed_to_Death_Observ) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.136 |
| [Post-Procedure Observation](#E_PostProcedure_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.150 |
| [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.154 |
| [Infection-Type Observation](#E_InfectionType_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.139 |
| [Bloodstream Infection Evidence Type Observation](#E_Bloodstream_Infection_Evidence_Type_O) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.114 |
| [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.160 |
| [Infection Condition Observation](#E_Infection_Condition_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.135 |
| [Occasion of HAI Detection Observation](#E_Occasion_of_HAI_Detection_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.144 |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.180 |
| [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.119 |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) | section | urn:oid:2.16.840.1.113883.10.20.5.5.45 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [MDRO/CDI Observation](#E_MDROCDI_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.142 |
| [Findings Organizer](#E_Findings_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.182 |
| [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.147 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.126 |
| [COVID-19 Section (V2)](#S_COVID19_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01 |
| [NHSN COVID-19 Condition Observation (V2)](#E_NHSN_COVID19_Condition_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01 |
| [Healthcare Associated Infection Report](#D_Healthcare_Associated_Infection_Repor) | document | urn:oid:2.16.840.1.113883.10.20.5.4.25 |
| [Healthcare Personnel Influenza Vaccination (HP-FLU) Summary Report](#D_Healthcare_Personnel_Influenza_Vaccin) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.50:2017-04-01 |
| [Summary Data Section (HP-FLU)](#S_Summary_Data_Section_HPFLU) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.58:2017-04-01 |
| [Summary Encounter (HP-FLU)](#E_Summary_Encounter_HPFLU) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.241:2017-04-01 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [Vaccination Type Observation](#E_Vaccination_Type_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.242:2017-04-01 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Hemovigilance (HV) Summary Report (V2)](#D_Hemovigilance_HV_Summary_Report_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.49:2016-08-01 |
| [Summary Data Section (HV) (V2)](#S_Summary_Data_Section_HV_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.57:2016-08-01 |
| [No Hemovigilance Adverse Reactions Reported This Month Observation](#E_No_Hemovigilance_Adverse_Reactions_Re) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.232:2015-10-01 |
| [No Hemovigilance Incidents Reported This Month Observation](#E_No_Hemovigilance_Incidents_Reported_T) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.233:2015-10-01 |
| [Summary Encounter (HV) (V2)](#E_Summary_Encounter_HV_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.234:2016-08-01 |
| [Summary Data Observation (HV)](#E_Summary_Data_Observation_HV) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.235:2015-10-01 |
| [Facility Transfuses Blood Products Treated with Pathogen Reduction Technology Observation (V2)](#E_Facility_Transfuses_Blood_Products_Tr) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.236:2016-08-01 |
| [Blood Product Usage Summary Observation (V2)](#E_Blood_Product_Usage_Summary_Obs_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.237:2016-08-01 |
| [ISBT Product Code Summary Observation (V2)](#E_ISBT_Product_Code_Summary_ObsV2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01 |
| [Pathogen Reduced Apheresis Platelet Usage Summary Observation](#E_Pathogen_Reduced_Apheresis_Platelet_U) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.240:2016-08-01 |
| [ISBT Product Code Summary Observation (V2)](#E_ISBT_Product_Code_Summary_ObsV2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.238:2016-08-01 |
| [Intensive Care Unit (ICU) Summary Report (V3)](#D_Intensive_Care_Unit_ICU_Summary_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.40:2018-04-01 |
| [Summary Data Section](#S_Summary_Data_Section) | section | urn:oid:2.16.840.1.113883.10.20.5.5.47 |
| [Summary Encounter](#E_Summary_Encounter) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.184 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [Report No Events Section](#S_Report_No_Events_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Late Onset Sepsis/Meningitis Denominator (LOS/Men Denom) Report](#D_Late_Onset_SepsisMeningitis_Denominat) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.58:2019-04-01 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Encounters Section in a LOS/Men Denominator](#S_Encounters_Section_in_a_LOSMen_Denomi) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.71:2019-04-01 |
| [Location Within Facility Encounter](#E_Location_Within_Facility_Encounter) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.262:2019-04-01 |
| [Risk Factors Section in a LOS/Men Denominator](#S_Risk_Factors_Section_in_a_LOSMen_Deno) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.72:2019-04-01 |
| [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.137 |
| [Gestational Age at Birth Observation (V2)](#E_Gestational_Age_at_Birth_Observation_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01 |
| [Late Onset Sepsis/Meningitis Event (LOS) Report (V2)](#D_Late_Onset_SepsisMeningitis_Event_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.53:2019-04-01 |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) | section | urn:oid:2.16.840.1.113883.10.20.5.5.45 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [MDRO/CDI Observation](#E_MDROCDI_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.142 |
| [Findings Organizer](#E_Findings_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.182 |
| [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.147 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.126 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Infection Details in Late Onset Sepsis Report](#S_Infection_Details_in_Late_Onset_Sepsi) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.64:2018-04-01 |
| [Death Observation](#E_Death_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.120 |
| [Infection Contributed to Death Observation](#E_Infection_Contributed_to_Death_Observ) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.136 |
| [Infection-Type Observation](#E_InfectionType_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.139 |
| [Bloodstream Infection Evidence Type Observation](#E_Bloodstream_Infection_Evidence_Type_O) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.114 |
| [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.160 |
| [Infection Condition Observation](#E_Infection_Condition_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.135 |
| [Occasion of HAI Detection Observation](#E_Occasion_of_HAI_Detection_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.144 |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.180 |
| [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.119 |
| [Inborn/Outborn Observation](#E_InbornOutborn_Observation) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.257:2018-04-01 |
| [Risk Factors Section in a LOS/Men Event (V2)](#S_Risk_Factors_Section_in_a_LOSMen_EV_2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.65:2019-04-01 |
| [Infection Risk Factors Measurement Observation](#E_Infection_Risk_Factors_Measurement_Ob) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.137 |
| [Infection Risk Factors Observation](#E_Infection_Risk_Factors_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.138 |
| [Device Insertion Time and Location Procedure](#E_Device_Insertion_Time_and_Location_Pr) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.122 |
| [Gestational Age at Birth Observation (V2)](#E_Gestational_Age_at_Birth_Observation_) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.255:2019-04-01 |
| [Neonatal Intensive Care Unit (NICU) Summary Report (V3)](#D_Neonatal_Intensive_Care_Unit_NICU_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.41:2018-04-01 |
| [Summary Data Section (NICU) (V2)](#S_Summary_Data_Section_NICU_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.48:2018-04-01 |
| [Summary Encounter (NICU)](#E_Summary_Encounter_NICU) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.191 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [Report No Events Section](#S_Report_No_Events_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Outpatient Procedure Component Denominator for Same Day Outcome Measures Report](#D_Outpatient_Procedure_Component_Denomi) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.55:2019-04-01 |
| [Summary Data Section](#S_Summary_Data_Section) | section | urn:oid:2.16.840.1.113883.10.20.5.5.47 |
| [Summary Encounter](#E_Summary_Encounter) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.184 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Report No Events Section](#S_Report_No_Events_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Outpatient Procedure Component Same Day Outcome Measures Event Report](#D_Outpatient_Procedure_Component_Same_D) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.54:2019-04-01 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Same Day Outcome Measures Event Details Section](#S_Same_Day_Outcome_Measures_Event_Detai) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.66:2019-04-01 |
| [Same Day Outcome Measures Organizer (V3)](#E_Same_Day_Outcome_Measures_Organizer_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.212:2019-04-01 |
| [Same Day Outcome Measure Observation (V3)](#E_Same_Day_Outcome_Measure_Obs_V3) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.208:2019-04-01 |
| [Outpatient Procedure Surgical Site Infection (SSI) Event Report](#D_Outpatient_Procedure_Surgical_Site_In) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.57:2019-04-01 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Infection Details Section in an OPC SSI Report](#S_Infection_Details_Section_in_an_OPC_S) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.69:2019-04-01 |
| [Infection-Type Observation in an OPC SSI Event](#E_InfectionType_Observation_in_an_OPC_S) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.263:2019-04-01 |
| [Infection Condition Observation](#E_Infection_Condition_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.135 |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.180 |
| [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.119 |
| [SSI Detection Method](#E_SSI_Detection_Method) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.261:2019-04-01 |
| [Procedure Details in an OPC SSI Event](#E_Procedure_Details_in_an_OPC_SSI_Event) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.265:2019-04-01 |
| [Findings Section in an OPC SSI Report](#S_Findings_Section_in_an_OPC_SSI_Report) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.70:2019-04-01 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Findings Organizer](#E_Findings_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.182 |
| [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.147 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.126 |
| [Prevention Process and Outcome Measures (POM) Summary Report (V3)](#D_Prevention_Process_and_Outcome_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.43:2018-04-01 |
| [Summary Data Section (POM) (V2)](#S_Summary_Data_Section_POM_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.49:2014-12-01 |
| [Summary Encounter (POM)](#E_Summary_Encounter_POM) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.193 |
| [Summary Data Observation (POM)](#E_Summary_Data_Observation_POM) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.192 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [Primary C. Difficile Testing Method This Quarter](#E_Primary_C_Difficile_Testing_Method_Th) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.221:2014-12-01 |
| [Report No Events Section](#S_Report_No_Events_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Specialty Care Area (SCA) Summary Report (V3)](#D_Specialty_Care_Area_SCA_Summary_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.42:2018-04-01 |
| [Summary Data Section](#S_Summary_Data_Section) | section | urn:oid:2.16.840.1.113883.10.20.5.5.47 |
| [Summary Encounter](#E_Summary_Encounter) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.184 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [Report No Events Section](#S_Report_No_Events_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Vascular Access Type Report (VAT) Summary Report (V3)](#D_Vascular_Access_Type_Report_VAT_V3) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.45:2018-04-01 |
| [Summary Data Section (VAT)](#S_Summary_Data_Section_VAT) | section | urn:oid:2.16.840.1.113883.10.20.5.5.50 |
| [Summary Encounter (VAT)](#E_Summary_Encounter_VAT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.196 |
| [Summary Data Observation (VAT)](#E_Summary_Data_Observation_VAT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.195 |
| [Summary Data Observation](#E_Summary_Data_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.185 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [Report No Events Section](#S_Report_No_Events_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.62:2018-04-01 |
| [Report No Events](#E_Report_No_Events) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.249:2018-04-01 |
| [Ventilator Associated Event (VAE) Report (V2)](#D_Ventilator_Associated_Event_VAE_V2) | document | urn:hl7ii:2.16.840.1.113883.10.20.5.51:2021-01-01 |
| [Findings Section in an Infection-Type Report](#S_Findings_Section_in_an_InfectionType_) | section | urn:oid:2.16.840.1.113883.10.20.5.5.45 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [MDRO/CDI Observation](#E_MDROCDI_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.142 |
| [Findings Organizer](#E_Findings_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.182 |
| [Pathogen Ranking Observation](#E_Pathogen_Ranking_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.147 |
| [Pathogen Identified Observation](#E_Pathogen_Identified_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.145 |
| [Drug-Susceptibility Test Observation](#E_DrugSusceptibility_Test_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.126 |
| [Infection Details Section in a VAE Report](#S_Infection_Details_Section_in_a_VAE_Re) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.59:2017-04-01 |
| [Death Observation](#E_Death_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.120 |
| [Infection Contributed to Death Observation](#E_Infection_Contributed_to_Death_Observ) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.136 |
| [Post-Procedure Observation](#E_PostProcedure_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.150 |
| [Procedure Details Clinical Statement in an Infection-Type Report](#E_Procedure_Details_Clinical_Stmt_IT) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.154 |
| [Infection-Type Observation](#E_InfectionType_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.139 |
| [Bloodstream Infection Evidence Type Observation](#E_Bloodstream_Infection_Evidence_Type_O) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.114 |
| [Secondary Bloodstream Infection Observation](#E_Secondary_Bloodstream_Infection_Obser) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.160 |
| [Infection Condition Observation](#E_Infection_Condition_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.135 |
| [Occasion of HAI Detection Observation](#E_Occasion_of_HAI_Detection_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.144 |
| [Criteria of Diagnosis Organizer](#E_Criteria_of_Diagnosis_Organizer) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.180 |
| [Criterion of Diagnosis Observation](#E_Criterion_of_Diagnosis_Observation) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.119 |
| [Risk Factors Section in a VAE Report](#S_Risk_Factors_Section_in_a_VAE_Report) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.60:2017-04-01 |
| [Mechanical Ventilation Initiation Act](#E_Mechanical_Ventilation_Initiation_Act) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.244:2017-04-01 |
| [APRV or Related at Time of VAE Observation](#E_APRV_or_Related_at_Time_of_VAE_Observ) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.248:2017-04-01 |
| [NHSN Comment Section](#S_NHSN_Comment_Section) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.61:2017-04-01 |
| [NHSN Comment](#E_NHSN_Comment) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.243:2017-04-01 |
| [COVID-19 Section (V2)](#S_COVID19_Section_V2) | section | urn:hl7ii:2.16.840.1.113883.10.20.5.5.80:2021-01-01 |
| [NHSN COVID-19 Condition Observation (V2)](#E_NHSN_COVID19_Condition_Observation_V2) | entry | urn:hl7ii:2.16.840.1.113883.10.20.5.6.270:2021-01-01 |
| [Antimicrobial Susceptibility Antibiotic](#E_Antimicrobial_Susceptibility_Antibiot) | entry | urn:oid:2.16.840.1.113883.10.20.5.6.176 |
| [HAI Section Generic Constraints](#S_HAI_Section_Generic_Constraints) | section | urn:oid:2.16.840.1.113883.10.20.5.4.26 |

# Value Sets In This Guide

Table 532: Value Sets

| Name | OID | URL |
| --- | --- | --- |
| [Administrative Gender (HL7 V3)](#Administrative_Gender_HL7_V3) | urn:oid:2.16.840.1.113883.1.11.1 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.1/expansion> |
| [Codes for Antimicrobial Resistance Option (ARO) Summary Data](#Codes_for_Antimicrobial_Resistance_Opti) | urn:oid:2.16.840.1.113883.10.20.5.9.8 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.8/expansion> |
| [Codes for Antimicrobial Usage, Pharmacy (AUP) Summary Data](#Codes_for_Antimicrobial_Usage_Pharmacy_) | urn:oid:2.16.840.1.113883.10.20.5.9.9 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.9/expansion> |
| [Codes for Healthcare Personnel Influenza Vaccination (HP FLU) Summary Data](#Codes_for_Healthcare_Personnel_Influenz) | urn:oid:2.16.840.1.113883.10.20.5.9.10 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.10/expansion> |
| [Codes for Hemovigilance (HV) Summary Data](#Codes_for_Hemovigilance_HV_Summary_Data) | urn:oid:2.16.840.1.113883.10.20.5.9.11 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.11/expansion> |
| [Codes for Intensive Care Unit (ICU) Summary Data](#Codes_for_Intensive_Care_Unit_ICU_Summa) | urn:oid:2.16.840.1.113883.10.20.5.9.12 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.12/expansion> |
| [Codes for Neonatal Intensive Care Unit (NICU) Summary Data](#Codes_for_Neonatal_Intensive_Care_Unit_) | urn:oid:2.16.840.1.113883.10.20.5.9.13 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.13/expansion> |
| [Codes for Outpatient Procedure Component Same Day Outcome Measures Summary Data](#Codes_for_Outpatient_Procedure_Componen) | urn:oid:2.16.840.1.113883.10.20.5.9.32 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.32/expansion> |
| [Codes for Prevention Process and Outcome Measures (POM) Summary Data](#Codes_for_Prevention_Process_and_Outcom) | urn:oid:2.16.840.1.113883.10.20.5.9.15 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.15/expansion> |
| [Codes for Specialty Care Area (SCA) Summary Data](#Codes_for_Specialty_Care_Area_SCA_Summa) | urn:oid:2.16.840.1.113883.10.20.5.9.16 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.16/expansion> |
| [Codes for Vascular Access Type (Dialysis) Summary Data](#Codes_for_Vascular_Access_Type_Dialysis) | urn:oid:2.16.840.1.113883.10.20.5.9.17 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.17/expansion> |
| [Ethnicity](#Ethnicity) | urn:oid:2.16.840.1.114222.4.11.837 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.837/expansion> |
| [HealthcarePersonnelType](#HealthcarePersonnelType) | urn:oid:2.16.840.1.113883.10.20.5.9.6 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.6/expansion> |
| [NHSN COVID19 Case Classification](#NHSN_COVID19_Case_Classification) | urn:oid:2.16.840.1.113883.10.20.5.9.40 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.40/expansion> |
| [NHSN Cryoprecipitate (24)](#NHSN_Cryoprecipitate_24) | urn:oid:2.16.840.1.114222.4.11.7315 | N/A |
| [NHSN Cryoprecipitate/Psoralen-Treated (44)](#NHSN_CryoprecipitatePsoralenTreated_44) | urn:oid:2.16.840.1.114222.4.11.7502 | N/A |
| [NHSN Cryoprecipitate/Riboflavin-Treated (45)](#NHSN_CryoprecipitateRiboflavinTreated_4) | urn:oid:2.16.840.1.114222.4.11.7503 | N/A |
| [NHSN Pathogen Reduced Apheresis Platelet Usage](#NHSN_Pathogen_Reduced_Apheresis_Platele) | urn:oid:2.16.840.1.113883.10.20.5.9.5 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.5/expansion> |
| [NHSN Plasma/Apheresis/Psoralen-Treated (35)](#NHSN_PlasmaApheresisPsoralenTreated_35) | urn:oid:2.16.840.1.114222.4.11.7326 | N/A |
| [NHSN Plasma/Apheresis/Riboflavin-Treated (36)](#NHSN_PlasmaApheresisRiboflavinTreated_3) | urn:oid:2.16.840.1.114222.4.11.7327 | N/A |
| [NHSN Plasma/Apheresis/Total (23)](#NHSN_PlasmaApheresisTotal_23) | urn:oid:2.16.840.1.114222.4.11.7314 | N/A |
| [NHSN Plasma/Whole Blood Derived/Psoralen-Treated (32)](#NHSN_PlasmaWhole_Blood_DerivedPsoralenT) | urn:oid:2.16.840.1.114222.4.11.7323 | N/A |
| [NHSN Plasma/Whole Blood Derived/Riboflavin-Treated (33)](#NHSN_PlasmaWhole_Blood_DerivedRiboflavi) | urn:oid:2.16.840.1.114222.4.11.7324 | N/A |
| [NHSN Plasma/Whole Blood Derived/Total (22)](#NHSN_PlasmaWhole_Blood_DerivedTotal_22) | urn:oid:2.16.840.1.114222.4.11.7313 | N/A |
| [NHSN Platelets/Apheresis/Irradiated (19)](#NHSN_PlateletsApheresisIrradiated_19) | urn:oid:2.16.840.1.114222.4.11.7310 | N/A |
| [NHSN Platelets/Apheresis/Irradiated or Leukocyte Reduced (21)](#NHSN_PlateletsApheresisIrradiated_or_Le) | urn:oid:2.16.840.1.114222.4.11.7312 | N/A |
| [NHSN Platelets/Apheresis/Leukocyte Reduced (20)](#NHSN_PlateletsApheresisLeukocyte_Reduce) | urn:oid:2.16.840.1.114222.4.11.7311 | N/A |
| [NHSN Platelets/Apheresis/Not Irradiated or Leukocyte Reduced (18)](#NHSN_PlateletsApheresisNot_Irradiated_o) | urn:oid:2.16.840.1.114222.4.11.7309 | N/A |
| [NHSN Platelets/Apheresis/Psoralen-Treated (29)](#NHSN_PlateletsApheresisPsoralenTreated_) | urn:oid:2.16.840.1.114222.4.11.7320 | N/A |
| [NHSN Platelets/Apheresis/Psoralen-Treated and In Plasma (46)](#NHSN_PlateletsApheresisPsoralenTreated_) | urn:oid:2.16.840.1.114222.4.11.7504 | N/A |
| [NHSN Platelets/Apheresis/Psoralen-Treated and In Platelet Additive Solution (47)](#NHSN_PlateletsApheresisPsoralenTreated_) | urn:oid:2.16.840.1.114222.4.11.7505 | N/A |
| [NHSN Platelets/Apheresis/Riboflavin-Treated (30)](#NHSN_PlateletsApheresisRiboflavinTreate) | urn:oid:2.16.840.1.114222.4.11.7321 | N/A |
| [NHSN Platelets/Apheresis/Riboflavin-Treated and In Plasma (48)](#NHSN_PlateletsApheresisRiboflavinTreate) | urn:oid:2.16.840.1.114222.4.11.7506 | N/A |
| [NHSN Platelets/Apheresis/Riboflavin-Treated and In Platelet Additive Solution (49)](#NHSN_PlateletsApheresisRiboflavinTreate) | urn:oid:2.16.840.1.114222.4.11.7507 | N/A |
| [NHSN Platelets/Whole Blood Derived/Irradiated (14)](#NHSN_PlateletsWhole_Blood_DerivedIrradi) | urn:oid:2.16.840.1.114222.4.11.7305 | N/A |
| [NHSN Platelets/Whole Blood Derived/Irradiated and Leukocyte Reduced (16)](#NHSN_PlateletsWhole_Blood_DerivedIrradi) | urn:oid:2.16.840.1.114222.4.11.7307 | N/A |
| [NHSN Platelets/Whole Blood Derived/Leukocyte Reduced (15)](#NHSN_PlateletsWhole_Blood_DerivedLeukoc) | urn:oid:2.16.840.1.114222.4.11.7306 | N/A |
| [NHSN Platelets/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (13)](#NHSN_PlateletsWhole_Blood_DerivedNot_Ir) | urn:oid:2.16.840.1.114222.4.11.7304 | N/A |
| [NHSN Platelets/Whole Blood Derived/Psoralen-Treated (26)](#NHSN_PlateletsWhole_Blood_DerivedPsoral) | urn:oid:2.16.840.1.114222.4.11.7317 | N/A |
| [NHSN Platelets/Whole Blood Derived/Riboflavin-Treated (27)](#NHSN_PlateletsWhole_Blood_DerivedRibofl) | urn:oid:2.16.840.1.114222.4.11.7318 | N/A |
| [NHSN Red Blood Cells/Apheresis/Irradiated (9)](#NHSN_Red_Blood_CellsApheresisIrradiated) | urn:oid:2.16.840.1.114222.4.11.7300 | N/A |
| [NHSN Red Blood Cells/Apheresis/Irradiated or Leukocyte Reduced (11)](#NHSN_Red_Blood_CellsApheresisIrradiated) | urn:oid:2.16.840.1.114222.4.11.7302 | N/A |
| [NHSN Red Blood Cells/Apheresis/Leukocyte Reduced (10)](#NHSN_Red_Blood_CellsApheresisLeukocyte_) | urn:oid:2.16.840.1.114222.4.11.7301 | N/A |
| [NHSN Red Blood Cells/Apheresis/Not Irradiated or Leukocyte Reduced (8)](#NHSN_Red_Blood_CellsApheresisNot_Irradi) | urn:oid:2.16.840.1.114222.4.11.7299 | N/A |
| [NHSN Red Blood Cells/Apheresis/Riboflavin-Treated (42)](#NHSN_Red_Blood_CellsApheresisRiboflavin) | urn:oid:2.16.840.1.114222.4.11.7501 | N/A |
| [NHSN Red Blood Cells/Apheresis/S-303-Treated (41)](#NHSN_Red_Blood_CellsApheresisS303Treate) | urn:oid:2.16.840.1.114222.4.11.7500 | N/A |
| [NHSN Red Blood Cells/Whole Blood Derived/Irradiated (4)](#NHSN_Red_Blood_CellsWhole_Blood_Derived) | urn:oid:2.16.840.1.114222.4.11.7295 | N/A |
| [NHSN Red Blood Cells/Whole Blood Derived/Irradiated and Leukocyte Reduced (6)](#NHSN_Red_Blood_CellsWhole_Blood_Derived) | urn:oid:2.16.840.1.114222.4.11.7297 | N/A |
| [NHSN Red Blood Cells/Whole Blood Derived/Leukocyte Reduced (5)](#NHSN_Red_Blood_CellsWhole_Blood_Derived) | urn:oid:2.16.840.1.114222.4.11.7296 | N/A |
| [NHSN Red Blood Cells/Whole Blood Derived/Not Irradiated or Leukocyte Reduced (3)](#NHSN_Red_Blood_CellsWhole_Blood_Derived) | urn:oid:2.16.840.1.114222.4.11.7294 | N/A |
| [NHSN Red Blood Cells/Whole Blood Derived/Riboflavin-Treated](#NHSN_Red_Blood_CellsWhole_Blood_Derived) | urn:oid:2.16.840.1.114222.4.11.7499 | N/A |
| [NHSN Red Blood Cells/Whole Blood Derived/S-303-Treated](#NHSN_Red_Blood_CellsWhole_Blood_Derived) | urn:oid:2.16.840.1.114222.4.11.7498 | N/A |
| [NHSN Whole Blood Total (1)](#NHSN_Whole_Blood_Total_1) | urn:oid:2.16.840.1.114222.4.11.7292 | N/A |
| [NHSNAntimicrobialAgentAURPCode](#NHSNAntimicrobialAgentAURPCode) | urn:oid:2.16.840.1.114222.4.11.3360 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3360/expansion> |
| [NHSNASAClassCode](#NHSNASAClassCode) | urn:oid:2.16.840.1.113883.13.10 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.10/expansion> |
| [NHSNBloodCollectionLocation](#NHSNBloodCollectionLocation) | urn:oid:2.16.840.1.114222.4.11.7237 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7237/expansion> |
| [NHSNBloodStreamInfectionEvidenceTypeCode](#NHSNBloodStreamInfectionEvidenceTypeCod) | urn:oid:2.16.840.1.113883.13.7 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.7/expansion> |
| [NHSNCarbaDetectType](#NHSNCarbaDetectType) | urn:oid:2.16.840.1.114222.4.11.7241 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7241/expansion> |
| [NHSNCarbaTestMethod](#NHSNCarbaTestMethod) | urn:oid:2.16.840.1.114222.4.11.7240 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7240/expansion> |
| [NHSNCatheterTypeCode](#NHSNCatheterTypeCode) | urn:oid:2.16.840.1.114222.4.11.3185 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3185/expansion> |
| [NHSNCdiffTestMethod](#NHSNCdiffTestMethod) | urn:oid:2.16.840.1.114222.4.11.7242 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7242/expansion> |
| [NHSNClosureTechniqueCode](#NHSNClosureTechniqueCode) | urn:oid:2.16.840.1.114222.4.11.6051 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6051/expansion> |
| [NHSNContraindicationType](#NHSNContraindicationType) | urn:oid:2.16.840.1.114222.4.11.7239 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7239/expansion> |
| [NHSNCriterionOfDiagnosisCode](#NHSNCriterionOfDiagnosisCode) | urn:oid:2.16.840.1.114222.4.11.3195 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3195/expansion> |
| [NHSNDrugSusceptibilityFindingCode](#NHSNDrugSusceptibilityFindingCode) | urn:oid:2.16.840.1.113883.13.13 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.13/expansion> |
| [NHSNDrugSusceptibilityTestMethod](#NHSNDrugSusceptibilityTestMethod) | urn:oid:2.16.840.1.113883.10.20.5.9.4 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.4/expansion> |
| [NHSNDrugSusceptibilityTestsCode](#NHSNDrugSusceptibilityTestsCode) | urn:oid:2.16.840.1.113883.13.15 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.15/expansion> |
| [NHSNEligibilityCode](#NHSNEligibilityCode) | urn:oid:2.16.840.1.114222.4.11.3248 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3248/expansion> |
| [NHSNEncounterTypeCode](#NHSNEncounterTypeCode) | urn:oid:2.16.840.1.113883.13.1 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.1/expansion> |
| [NHSNHealthcareServiceLocationCode](#NHSNHealthcareServiceLocationCode) | urn:oid:2.16.840.1.113883.13.19 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.19/expansion> |
| [NHSNHipReplacementCode](#NHSNHipReplacementCode) | urn:oid:2.16.840.1.113883.13.3 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.3/expansion> |
| [NHSNInfectionConditionCode](#NHSNInfectionConditionCode) | urn:oid:2.16.840.1.114222.4.11.3196 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3196/expansion> |
| [NHSNInfectionRiskFactorsCode](#NHSNInfectionRiskFactorsCode) | urn:oid:2.16.840.1.113883.13.6 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.6/expansion> |
| [NHSNInfectionTypeCode](#NHSNInfectionTypeCode) | urn:oid:2.16.840.1.113883.13.20 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.20/expansion> |
| [NHSNInfluenzaVaccinationSetting](#NHSNInfluenzaVaccinationSetting) | urn:oid:2.16.840.1.113883.10.20.5.9.7 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.7/expansion> |
| [NHSNInsertionSiteCode](#NHSNInsertionSiteCode) | urn:oid:2.16.840.1.114222.4.11.3180 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3180/expansion> |
| [NHSNKneeReplacementCode](#NHSNKneeReplacementCode) | urn:oid:2.16.840.1.113883.13.4 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.4/expansion> |
| [NHSNLastLocationEncounterTypeCode](#NHSNLastLocationEncounterTypeCode) | urn:oid:2.16.840.1.113883.10.20.5.9.3 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.3/expansion> |
| [NHSNLOS/MENDischargeDisposition](#NHSNLOSMENDischargeDisposition) | urn:oid:2.16.840.1.113883.10.20.5.9.30 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.30/expansion> |
| [NHSNOccasionOfDetectionCode](#NHSNOccasionOfDetectionCode) | urn:oid:2.16.840.1.113883.13.12 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.12/expansion> |
| [NHSNOPCProcedureCategoryCode](#NHSNOPCProcedureCategoryCode) | urn:oid:2.16.840.1.113883.10.20.5.9.34 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.34/expansion> |
| [NHSNOrganismASTCode](#NHSNOrganismASTCode) | urn:oid:2.16.840.1.114222.4.11.3283 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3283/expansion> |
| [NHSNPathogenCode](#NHSNPathogenCode) | urn:oid:2.16.840.1.113883.13.16 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.16/expansion/20210514> |
| [NHSNPathogenCodeARO](#NHSNPathogenCodeARO) | urn:oid:2.16.840.1.113762.1.4.1190.6 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1190.6/expansion/20210514> |
| [NHSNPopulationCategoryCode](#NHSNPopulationCategoryCode) | urn:oid:2.16.840.1.114222.4.11.3234 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3234/expansion> |
| [NHSNPopulationSummaryReportTypeCode](#NHSNPopulationSummaryReportTypeCode) | urn:oid:2.16.840.1.114222.4.11.3595 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3595/expansion> |
| [NHSNPreviousFacility](#NHSNPreviousFacility) | urn:oid:2.16.840.1.114222.4.11.7238 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7238/expansion> |
| [NHSNPreviousPatientLocation](#NHSNPreviousPatientLocation) | urn:oid:2.16.840.1.114222.4.11.7233 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7233/expansion> |
| [NHSNProcedureCategoryCode](#NHSNProcedureCategoryCode) | urn:oid:2.16.840.1.113883.13.17 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.17/expansion> |
| [NHSNReasonForInsertionCode](#NHSNReasonForInsertionCode) | urn:oid:2.16.840.1.114222.4.11.3182 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3182/expansion> |
| [NHSNReportNoEventsAR](#NHSNReportNoEventsAR) | urn:oid:2.16.840.1.113883.10.20.5.9.35 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.35/expansion> |
| [NHSNReportNoEventsDialysis](#NHSNReportNoEventsDialysis) | urn:oid:2.16.840.1.113883.10.20.5.9.22 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.22/expansion> |
| [NHSNReportNoEventsICU](#NHSNReportNoEventsICU) | urn:oid:2.16.840.1.113883.10.20.5.9.18 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.18/expansion> |
| [NHSNReportNoEventsMDRO](#NHSNReportNoEventsMDRO) | urn:oid:2.16.840.1.113883.10.20.5.9.21 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.21/expansion> |
| [NHSNReportNoEventsMDROLTCF](#NHSNReportNoEventsMDROLTCF) | urn:oid:2.16.840.1.113883.10.20.5.1.9.1 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.1.9.1/expansion> |
| [NHSNReportNoEventsNICU](#NHSNReportNoEventsNICU) | urn:oid:2.16.840.1.113883.10.20.5.9.19 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.19/expansion> |
| [NHSNReportNoEventsOPCSameDayOutcomeMeasures](#NHSNReportNoEventsOPCSameDayOutcomeMeas) | urn:oid:2.16.840.1.113883.10.20.5.9.33 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.33/expansion> |
| [NHSNReportNoEventsSCA](#NHSNReportNoEventsSCA) | urn:oid:2.16.840.1.113883.10.20.5.9.20 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.20/expansion> |
| [NHSNRoleOfPerformerCode](#NHSNRoleOfPerformerCode) | urn:oid:2.16.840.1.114222.4.11.3181 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3181/expansion> |
| [NHSNRouteOfAdministrationAURPCode](#NHSNRouteOfAdministrationAURPCode) | urn:oid:2.16.840.1.114222.4.11.3361 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3361/expansion> |
| [NHSNSameDayOutcomeMeasure](#NHSNSameDayOutcomeMeasure) | urn:oid:2.16.840.1.114222.4.11.7214 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7214/expansion> |
| [NHSNSignificantPathogenCode](#NHSNSignificantPathogenCode) | urn:oid:2.16.840.1.114222.4.11.3194 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3194/expansion> |
| [NHSNSkinPreparationCode](#NHSNSkinPreparationCode) | urn:oid:2.16.840.1.114222.4.11.3183 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3183/expansion> |
| [NHSNSpecimenTypeCode](#NHSNSpecimenTypeCode) | urn:oid:2.16.840.1.114222.4.11.3249 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3249/expansion> |
| [NHSNSpinalFusionApproachCode](#NHSNSpinalFusionApproachCode) | urn:oid:2.16.840.1.113883.13.2 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.2/expansion> |
| [NHSNSpinalFusionLevelCode](#NHSNSpinalFusionLevelCode) | urn:oid:2.16.840.1.113883.13.11 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.11/expansion> |
| [NHSNSSIDetectionMethod](#NHSNSSIDetectionMethod) | urn:oid:2.16.840.1.113883.10.20.5.9.29 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.29/expansion> |
| [NHSNSSIDetectionMethodType](#NHSNSSIDetectionMethodType) | urn:oid:2.16.840.1.113883.10.20.5.9.31 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.31/expansion> |
| [NHSNStaphAureusSpecificTest](#NHSNStaphAureusSpecificTest) | urn:oid:2.16.840.1.114222.4.11.7160 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7160/expansion> |
| [NHSNStaphAureusTestResults](#NHSNStaphAureusTestResults) | urn:oid:2.16.840.1.114222.4.11.6074 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6074/expansion> |
| [NHSNStartOrContinuation](#NHSNStartOrContinuation) | urn:oid:2.16.840.1.114222.4.11.7338 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7338/expansion> |
| [NHSNSterileBarrierCode](#NHSNSterileBarrierCode) | urn:oid:2.16.840.1.114222.4.11.3184 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3184/expansion> |
| [NHSNSummaryBloodProductUsage](#NHSNSummaryBloodProductUsage) | urn:oid:2.16.840.1.114222.4.11.7353 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.7353/expansion> |
| [NHSNSuspectedSourceTypeCode](#NHSNSuspectedSourceTypeCode) | urn:oid:2.16.840.1.114222.4.11.6008 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6008/expansion> |
| [NHSNTimingCode](#NHSNTimingCode) | urn:oid:2.16.840.1.114222.4.11.3247 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.3247/expansion> |
| [NHSNVascularAccessSiteCode](#NHSNVascularAccessSiteCode) | urn:oid:2.16.840.1.114222.4.11.6042 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6042/expansion> |
| [NHSNVascularAccessTypeCode](#NHSNVascularAccessTypeCode) | urn:oid:2.16.840.1.114222.4.11.6007 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.114222.4.11.6007/expansion> |
| [NHSNVascularSpecimenCollectionSite](#NHSNVascularSpecimenCollectionSite) | urn:oid:2.16.840.1.113883.10.20.5.9.24 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.10.20.5.9.24/expansion> |
| [NHSNWoundClassCode](#NHSNWoundClassCode) | urn:oid:2.16.840.1.113883.13.9 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.13.9/expansion> |
| [NullValues\_UNK\_NA](#NullValues_UNK_NA) | urn:oid:2.16.840.1.113883.10.20.5.9.2 | https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2863 |
| [NullValues\_UNK\_OTH](#NullValues_UNK_OTH) | urn:oid:2.16.840.1.113883.10.20.5.9.1 | <https://trifolia.lantanagroup.com/TerminologyManagement/ValueSet/View/2843> |
| [ProcedureAct statusCode](#ProcedureAct_statusCode) | urn:oid:2.16.840.1.113883.11.20.9.22 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.22/expansion> |
| [Race Category Excluding Nulls](#Race_Category_Excluding_Nulls) | urn:oid:2.16.840.1.113883.3.2074.1.1.3 | <https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.2074.1.1.3/expansion> |

# Code Systems in This Guide

Table 533: Code Systems

| Name | OID |
| --- | --- |
| Administrative Gender | urn:oid:2.16.840.1.113883.5.1 |
| cdcNHSN | urn:oid:2.16.840.1.113883.6.277 |
| CPT4 | urn:oid:2.16.840.1.113883.6.12 |
| Healthcare Provider Taxonomy (HIPAA) | urn:oid:2.16.840.1.113883.6.101 |
| HL7ActClass | urn:oid:2.16.840.1.113883.5.6 |
| HL7ActCode | urn:oid:2.16.840.1.113883.5.4 |
| HL7ActMood | urn:oid:2.16.840.1.113883.5.1001 |
| HL7ActRelationshipType | urn:oid:2.16.840.1.113883.5.1002 |
| HL7ActStatus | urn:oid:2.16.840.1.113883.5.14 |
| HL7Confidentiality | urn:oid:2.16.840.1.113883.5.25 |
| HL7ContextControl | urn:oid:2.16.840.1.113883.5.1057 |
| HL7EntityClass | urn:oid:2.16.840.1.113883.5.41 |
| HL7NullFlavor | urn:oid:2.16.840.1.113883.5.1008 |
| HL7ParticipationType | urn:oid:2.16.840.1.113883.5.90 |
| HL7RoleClass | urn:oid:2.16.840.1.113883.5.110 |
| HSLOC | urn:oid:2.16.840.1.113883.6.259 |
| ISBT-128 | urn:oid:2.16.840.1.113883.6.18 |
| LOINC | urn:oid:2.16.840.1.113883.6.1 |
| ObservationInterpretation | urn:oid:2.16.840.1.113883.5.83 |
| Race & Ethnicity - CDC | urn:oid:2.16.840.1.113883.6.238 |
| RxNorm | urn:oid:2.16.840.1.113883.6.88 |
| SNOMED CT | urn:oid:2.16.840.1.113883.6.96 |
| UCUM | urn:oid:2.16.840.1.113883.6.8 |

# Changes from Previous Version

HAI Bloodstream Infection Report (BSI) (V4)

[HAI Bloodstream Infection Report (BSI) (V4) (urn:hl7ii:2.16.840.1.113883.10.20.5.32:2021-01-01)](#D_HAI_Bloodstream_Infection_Report_V4)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Draft |
| Name | HAI Bloodstream Infection Report (BSI) (V3) | HAI Bloodstream Infection Report (BSI) (V4) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.5.32:2018-04-01 | urn:hl7ii:2.16.840.1.113883.10.20.5.32:2021-01-01 |
| CONF #: 4475-30866 Added |  | This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30866) such that it |
| CONF #: 4475-30867 Added |  | SHALL contain exactly one [1..1] section (CONF:4475-30867). |
| CONF #: 4475-28308 Modified | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.3" (CONF:3357-28308). | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-28308). |
| CONF #: 4475-28432 Modified | SHALL contain exactly one [1..1] @extension="2018-04-01" (CONF:3357-28432). | SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-28432). |

HAI Surgical Site Infection Report (SSI) (V3)

[HAI Surgical Site Infection Report (SSI) (V3) (urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2021-01-01)](#D_HAI_Surgical_Site_Infection_Report_V3)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Draft |
| Name | HAI Surgical Site Infection Report (SSI) (V2) | HAI Surgical Site Infection Report (SSI) (V3) |
| Oid | urn:oid:2.16.840.1.113883.10.20.5.33.2 | urn:hl7ii:2.16.840.1.113883.10.20.5.33.2:2021-01-01 |
| CONF #: 4475-30868 Added |  | SHALL contain zero or one [0..1] @extension="2021-01-01" (CONF:4475-30868). |
| CONF #: 4475-30869 Added |  | This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30869) such that it |
| CONF #: 4475-30870 Added |  | SHALL contain exactly one [1..1] section (CONF:4475-30870). |
| CONF #: 4475-30312 Modified | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.2.1.1" (CONF:1101-30312). | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-30312). |

HAI Urinary Tract Infection Numerator Report (UTI) (V2)

[HAI Urinary Tract Infection Numerator Report (UTI) (V2) (urn:hl7ii:2.16.840.1.113883.10.20.5.34:2021-01-01)](#D_HAI_Urinary_Tract_Infection_Num_V2)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Draft |
| Name | HAI Urinary Tract Infection Numerator Report (UTI) | HAI Urinary Tract Infection Numerator Report (UTI) (V2) |
| Oid | urn:oid:2.16.840.1.113883.10.20.5.34 | urn:hl7ii:2.16.840.1.113883.10.20.5.34:2021-01-01 |
| CONF #: 4475-30871 Added |  | This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30871) such that it |
| CONF #: 4475-30872 Added |  | SHALL contain exactly one [1..1] section (CONF:4475-30872). |
| CONF #: 4475-30873 Added |  | SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-30873). |
| CONF #: 4475-28320 Modified | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.2.1.1" (CONF:86-28320). | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-28320). |

Ventilator Associated Event (VAE) Report (V2)

[Ventilator Associated Event (VAE) Report (V2) (urn:hl7ii:2.16.840.1.113883.10.20.5.51:2021-01-01)](#D_Ventilator_Associated_Event_VAE_V2)

| Change | Old | New |
| --- | --- | --- |
| Status | Published | Draft |
| Name | Ventilator Associated Event (VAE) Report | Ventilator Associated Event (VAE) Report (V2) |
| Oid | urn:hl7ii:2.16.840.1.113883.10.20.5.51:2017-04-01 | urn:hl7ii:2.16.840.1.113883.10.20.5.51:2021-01-01 |
| CONF #: 4475-30874 Added |  | This structuredBody SHALL contain exactly one [1..1] component (CONF:4475-30874) such that it |
| CONF #: 4475-30875 Added |  | SHALL contain exactly one [1..1] section (CONF:4475-30875). |
| CONF #: 4475-113 Modified | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.3.2" (CONF:3311-113). | SHALL contain exactly one [1..1] @root="2.16.840.1.113883.10.20.5.7.4.1" (CONF:4475-113). |
| CONF #: 4475-123 Modified | SHALL contain exactly one [1..1] @extension="2017-04-01" (CONF:3311-123). | SHALL contain exactly one [1..1] @extension="2021-01-01" (CONF:4475-123). |