

Isolation Precautions Guideline

Workgroup Vote

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Section B: *Recommendations*

Fundamental Elements Needed to Prevent Transmission of Infectious Agents in Healthcare Settings

Personal Protective Equipment (PPE) for Healthcare Personnel (HCP)

General Considerations: Recommendations

1. Train and have healthcare personnel (HCP) demonstrate competency in the selecting, putting on, using, removing, and disposing of PPE in a manner to prevent exposures and self-contamination. (*Standard Practice*)
2. Employers in healthcare settings are required to provide readily available PPE to HCP, ideally at or near likely points of use. (*Standard Practice*)
3. Sizing and models should be chosen to accommodate the needs of the local workforce. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Glove Recommendations*

Indications

1. Use non-sterile gloves in the following situations: (1) any anticipated contact with blood or other potentially infectious material, (2) touching mucous membranes or non-intact skin, (3) handling soiled items such as used wound dressings, and (4) as indicated by Transmission-Based Precautions. Activities that do not meet these criteria do not require gloves. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Glove Recommendations (cont.)*

Use

2. HCP should perform hand hygiene prior to reaching into a box of non-sterile gloves and putting on gloves, to reduce the risk of contaminating both the remaining gloves in the box and the gloves being put on. (*Expert Opinion*)
3. During care of a single patient, gloves should be changed after a task or procedure if contact occurs with potentially infectious material (e.g., if moving from a dirty task to a clean task). (*Standard Practice*)
4. Remove gloves if torn or soiled, and before caring for another patient. (*Standard Practice*)
5. Hand hygiene should be performed immediately after removing gloves, because pathogens on used gloves can contaminate hands during glove removal. (*Standard Practice*)
6. HCP should not practice extended glove use in place of hand hygiene. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Glove Recommendation (cont.)*

Selection

7. Non-sterile gloves should be available in a range of sizes so that all users will be able to select a glove that fits comfortably without excess material that could impair function. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Gown Recommendations*

Indications

1. Use non-sterile gowns in the following situations: (1) when an activity is anticipated to contaminate HCP clothing through direct touch or splash, and (2) as indicated by Transmission-Based Precautions. (*Standard Practice*)

Use

2. Gowns should be worn correctly, with all fasteners secured. (*Standard Practice*)
3. Remove gowns if damaged or soiled, and before caring for another patient. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Mask Recommendations*

Indications

1. Use masks in the following situations: (1) when an activity is anticipated to create splashes or spray to the face, (2) as source control, and (3) as indicated by Transmission-Based Precautions. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Mask Recommendations (cont.)*

Use

2. Masks should not be reused as they can serve as a reservoir of infectious material if they become contaminated during use. (*Standard Practice*)
3. Masks should be changed if they become soiled, damaged, or harder to breathe through. (*Standard Practice*)
4. Extended use should not be practiced with masks except when used for source control. (*Standard Practice*) When practicing extended use for source control, masks should be disposed of:
 - a) anytime they are removed (*Standard Practice*), and
 - b) if they are used during the care of a patient for whom a mask is indicated as part of Transmission-Based Precautions. (*Standard Practice*)

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Personal Protective Equipment (PPE) for HCP: *Mask Recommendation (cont.)*

Selection

5. A fluid-resistant mask should be used in situations when splashes and sprays are anticipated. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Respirator Recommendations*

Indications

1. Use respirators as indicated by Transmission-Based Precautions. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Respirator Recommendations (cont.)*

Use

2. A seal check should be performed each time an HCP puts on a fit-tested respirator to ensure that the respirator is properly seated on the face. (*Standard Practice*)
3. Single use disposable respirators should not be reused as they can serve as reservoir of infectious material if they become contaminated during use. (*Standard Practice*)
4. Reusable respirators should be cleaned, disinfected, and dried between uses according to the manufacturer's instructions for use. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Respirator Recommendations (cont.)*

Use (cont.)

5. Respirators should be changed if they become soiled, damaged, or harder to breathe through. (*Standard Practice*)

Selection

6. A fluid-resistant respirator should be used in situations when splashes and sprays are anticipated. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Eye and Face Protection Recommendations*

Indications

1. Protect the eyes and face in the following situations: (1) when an activity is anticipated to create splashes or spray of potentially infectious material to the eyes or face, and (2) as indicated by Transmission-Based Precautions. (*Standard Practice*)

Personal Protective Equipment (PPE) for HCP: *Eye and Face Protection Recommendation (cont.)*

Use

2. If reusable devices are used for eye and face protection, protocols should be in place for cleaning, disinfection, and drying between uses, per manufacturers' instructions for use. (*Standard Practice*)

Selection

3. The selection of eye and face protective equipment should consider the nature of the activity for which it will be used. (*Standard Practice*)

Section C: Standard & Transmission-Based Precautions - *General Recommendations*

Fundamental Elements Needed to Prevent Transmission of Infectious
Agents in Healthcare Settings

Standard Precautions: *Recommendation*

1. Standard Precautions apply to the care of every patient, regardless of suspected or confirmed infection status, in any setting in which healthcare is delivered, and at all times. (*Standard Practice*)
2. HCP should be trained on how and when to apply Standard Precautions, including how to put on, correctly use, remove, and dispose of PPE. (*Standard Practice*)

Transmission-Based Precautions: *Recommendation*

1. HCP should be trained on how and when to apply Transmission-Based Precautions, including how to put on, correctly use, remove, and dispose of PPE. (*Standard Practice*)

Syndromic and Empiric Applications of Transmission-Based Precautions: *Recommendation*

1. Use appropriate Transmission-Based Precautions at the time a patient develops symptoms or signs consistent with a transmissible infection to reduce transmission risk. (*Standard Practice*)

Section C: TBP - *Transmission via Touch*

Recommendations

Fundamental Elements Needed to Prevent Transmission of Infectious Agents in Healthcare Settings

Use of Transmission-Based Precautions to Prevent Transmission by Touch: *Recommendations*

1. **Contact Precautions** (applies to all healthcare settings)
 - a. Care for patients in a dedicated space, preferably a single patient room if available; if not available, then cohort. See Patient Placement section for more details. (*Standard Practice*)
 - b. Use a gown and gloves for all interactions that may involve contact with the patient or the patient's environment. Gown and gloves should be properly removed and disposed of upon exiting the patient's room (or designated space). (*Standard Practice*)

Use of Transmission-Based Precautions to Prevent Transmission by Touch: *Recommendations (cont.)*

1. **Contact Precautions** (applies to all healthcare settings)
 - c. Ideally, patient care equipment (e.g., blood pressure cuffs, stethoscopes) should be dedicated to the patient and the patient's designated space. Disposable equipment may be used to minimize cross-transmission. If shared patient care items are used, they should be cleaned and disinfected prior to use with other patients in accordance with the manufacturers' instructions for use. (*Standard Practice*)

Use of Transmission-Based Precautions to Prevent Transmission by Touch: *Recommendations (cont.)*

1. Contact Precautions (applies to all healthcare settings)

- d. In general, clean, unopened patient care supplies should not be stored in the room but should be available near the room to allow easy access while ensuring that large amounts of supplies do not become contaminated. (*Standard Practice*)
 - i. Any disposable supplies that are brought into the room should not be returned to the general supply; they may be sent home with the patient upon discharge if needed (e.g., for dressing changes) or discarded. (*Standard Practice*)
 - ii. For clinical areas where supplies are stored routinely within rooms (e.g., outpatient clinic rooms), supplies should be stored in covered or closed clean storage areas. (*Standard Practice*)

Use of Transmission-Based Precautions to Prevent Transmission by Touch: *Recommendations (cont.)*

1. **Contact Precautions** (applies to all healthcare settings)
 - e. Frequently clean and disinfect room surfaces (e.g., at least daily or prior to use by another patient in ambulatory settings) to reduce environmental reservoirs of infectious material, focusing on frequently touched surfaces and areas in the immediate vicinity of the patient. See [Environmental Infection Control Guidelines](#) for additional details. (*Standard Practice*)

Use of Transmission-Based Precautions to Prevent Transmission by Touch: *Recommendations (cont.)*

2. **Enhanced Barrier Precautions** (applies to Nursing Homes):
 - a. Use Enhanced Barrier Precautions, when Contact Precautions do not otherwise apply, for patients and residents infected or colonized with multidrug-resistant organisms (MDROs). (*Expert Opinion*)
 - b. Enhanced Barrier Precautions may be considered for patients and residents at high risk for MDRO colonization (e.g., patients and residents with wounds and/or indwelling medical devices), even if not known to be infected or colonized with an MDRO. (*Expert Opinion*)

Use of Transmission-Based Precautions to Prevent Transmission by Touch: *Recommendations (cont.)*

2. Enhanced Barrier Precautions (applies to Nursing Homes):

- c. Use a gown and gloves for high-contact patient and resident care activities including dressing, bathing/showering, transferring, providing hygiene, changing linens, changing briefs or assisting with toileting, device care or use (e.g., central venous catheter, urinary catheter, feeding tube, tracheostomy/ventilator management), and wound care. In general, gown and gloves would not be required for patient and resident care activities other than those listed above, unless indicated per Standard Precautions. (*Expert Opinion*)

Use of Transmission-Based Precautions to Prevent Transmission by Touch: *Recommendations (cont.)*

2. **Enhanced Barrier Precautions** (applies to Nursing Homes):
 - d. Patients and residents should not be restricted to their rooms or limited from participation in group activities. (*Expert Opinion*)
 - e. Enhanced Barrier Precautions should remain in place for the duration of a patient or resident's stay in the facility or until the indication for Enhanced Barrier Precautions is resolved (e.g., resolution of wound or discontinuation of the indwelling medical device). (*Expert Opinion*)

Section C: TBP - *Transmission via the Air*

Recommendations

Fundamental Elements Needed to Prevent Transmission of Infectious Agents in Healthcare Settings

Use of Transmission-Based Precautions to Prevent Transmission through the Air: *Recommendations*

1. Routine Air Precautions

- a. HCP should use a mask on room entry and use eye protection based on Standard Precautions. (*Standard Practice*)
- b. Place patient in a single patient room; if not available, then cohort. See Patient Placement section for more details. (*Standard Practice*)
- c. Rooms should be appropriately ventilated, but an AIIR is not routinely needed. (*Standard Practice*)
- d. Source control should be used by the patient when they leave their room (e.g., for transport to a procedure). (*Standard Practice*)

Use of Transmission-Based Precautions to Prevent Transmission through the Air: *Recommendations (cont.)*

2. Special Air Precautions

- a. HCP should use a NIOSH-approved[®] fit-tested N95 (or higher-level) respirator and eye protection on room entry. (*Expert Opinion*)
- b. Place patient in a single patient room; if not available, then cohort. See Patient Placement section for more details (*Expert Opinion*)
- c. Rooms should be appropriately ventilated, but an AIIR is not routinely needed. (*Expert Opinion*)
- d. Source control should be used by the patient when they leave their room (e.g., for transport to a procedure). (*Expert Opinion*)

Use of Transmission-Based Precautions to Prevent Transmission through the Air: *Recommendations (cont.)*

3. Extended Air Precautions

- a. HCP should use a NIOSH-approved[®] fit-tested N95 (or higher-level) respirator on room entry, and use eye protection based on Standard Precautions. (*Standard Practice*)
- b. Place patient in a single patient room. (*Standard Practice*)
- c. An AIIR is required. If an AIIR is not available, the patient should wear source control and be isolated in a standard single patient room with the door closed. The patient should be transferred to an AIIR as soon as possible. (*Standard Practice*)
- d. Source control should be used by the patient when they leave their room (e.g., for transport to a procedure). (*Standard Practice*)

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Section C: TBP - *Source Control and Patient Placement Recommendations*

Fundamental Elements Needed to Prevent Transmission of Infectious Agents in Healthcare Settings

Approaches to Source Control in Healthcare Settings: Recommendations

1. During periods of higher levels of community respiratory virus transmission, facilities should consider implementing one of the following approaches to source control:
 - a. HCP use source control when interacting with patients (e.g., on entry to the patient's room or bedspace). (*Expert Opinion*)
 - b. All individuals (e.g., patients, visitors, and HCP) use source control upon entry to the facility or a clinical area. (*Standard Practice*)
 - a. In most circumstances, it is not necessary for a patient to use source control when in their room; it could be considered when care is being provided. (*Expert Opinion*)
2. At any level of community respiratory virus transmission, consider implementing source control measures targeted toward higher risk areas (e.g., emergency departments, urgent care) or units (e.g., bone marrow transplant units) based on a facility risk assessment. (*Standard Practice*)

Patient Placement: *Recommendations*

1. Use single patient rooms for patients requiring Transmission-Based Precautions, whether to prevent transmission by touch or through the air. (*Standard Practice*)
2. In long-term and other residential settings, room placement decisions should balance risks to the infectious individual and to other patients and residents. (*Standard Practice*) Residents in Enhanced Barrier Precautions do not require placement in a single person room. (*Expert Opinion*)
3. In ambulatory settings, patients requiring Transmission-Based Precautions should be placed in an exam room or designated space as soon as possible rather than waiting in common areas. (*Standard Practice*)

Patient Placement: *Recommendations (cont.)*

4. If single patient rooms are not available, patients housed (cohorted) in the same room should have the same pathogen to the greatest extent possible. (*Standard Practice*)
5. Any time room sharing occurs, practices should be in place to limit potential for cross-contamination, including ready access to hand hygiene supplies, changing PPE between care of roommates, and dedicating patient care items or cleaning and disinfecting shared equipment after each use. (*Standard Practice*)

Section C: *Patient Transport*

Recommendations

Fundamental Elements Needed to Prevent Transmission of Infectious Agents in Healthcare Settings

Transport of Patients: *Recommendations*

Patient considerations

1. Patients under Transmission-Based Precautions (with the exception of Enhanced Barrier Precautions alone) should leave their room only when medically necessary for their evaluation or care. (*Standard Practice*)
2. If the patient is being isolated for a pathogen transmitted through the air, they should use source control any time they are outside of their room, unless source control is medically contraindicated or the individual is not capable of using source control safely. (*Standard Practice*)

Transport of Patients: *Recommendations (cont.)*

Patient considerations

3. If the patient is cared for using Contact Precautions for a pathogen transmitted by touch, appropriate barriers (e.g., clean patient gown, wrapping sheet, or impervious dressing) should be used to cover affected areas of the patient's body during transport when infectious skin lesions or drainage are present. (*Standard Practice*)

Transport of Patients: *Recommendations (cont.)*

Patient considerations

4. Before intra-facility or between-facility transport, direct communication with the receiving department or facility should occur to ensure notification regarding the nature of the infection, the type of Transmission-Based Precautions required, and when the patient will arrive. (*Standard Practice*)

Transport of Patients: *Recommendations (cont.)*

Transporter considerations

1. HCP transporting patients should follow Standard Precautions to avoid spreading infectious material during transport. (*Standard Practice*)
 - a. This includes performing hand hygiene before beginning transport, ensuring that wheelchairs and gurneys used for transport have been cleaned and disinfected prior to use, putting on all appropriate PPE prior to contact with the patient when assisting with patient movement at the destination location, and removing and disposing of soiled PPE. (*Standard Practice*)

Transport of Patients: *Recommendations (cont.)*

Transporter considerations

2. PPE is not routinely worn by HCP transporting patients, except in the following situations when all recommended PPE should be worn:
 - a. When providing direct patient care to a patient on Transmission-Based Precautions during transport. (*Expert Opinion*)
 - b. When transporting a patient with a pathogen that presents a high risk for morbidity and mortality for HCP (e.g., Ebola virus). (*Expert opinion*)

Transport of Patients: *Recommendations (cont.)*

Transporter considerations

3. HCP transporting patients on Transmission-Based Precautions should have PPE available to them and use PPE in the following circumstances:
 - a. When transporting a patient with a pathogen transmitted through the air, the transporter should have a mask or respirator available to them based on the recommended Transmission-Based Precaution category. If the patient is unable to use source control or if the patient will require medical care during transport (e.g., suctioning), the transporter should put on a mask or respirator prior to assisting the patient. (*Expert opinion*)
 - b. When transporting a patient with a pathogen transmitted by touch, the transporter should have gloves available to them. If the patient requires hands on assistance during transport, the transporter should put on gloves prior to touching the patient, and when finished, discard the gloves and perform hand hygiene. (*Expert opinion*)

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Transport of Patients: *Recommendations (cont.)*

Transporter considerations

4. If a patient on Special Air Precautions is unable to wear source control, or if a patient is on Extended Air Precautions for a highly contagious infection (e.g., varicella or measles), the transport route and process should include a selection of the time and route of travel within a facility to minimize exposure of others during transport (*Expert Opinion*), and use of appropriate PPE by staff during transport and at the destination location. (*Standard Practice*)
5. When PPE is worn by a transport team, there should be a team member not wearing gowns and gloves to interact with the environment. (*Expert Opinion*)