

Infection Control in Healthcare Personnel Workgroup

Chair: Colleen Kraft, MD

HICPAC June 8, 2023

Disclaimer

- The findings and conclusions herein are **draft** and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.
- This document was modified on February 4, 2025 in accord to comply with Executive Order 14168 “Defending Women from Gender Ideology Extremism and Restoring Truth to the Federal Government”

Infection Control in Healthcare Personnel Workgroup

- **Update:** *Guideline for Infection Control in Healthcare Personnel, 1998*
- **Goal:** To provide updated information on Infection Control in Healthcare Personnel (HCP), Section 2
- **Workgroup Charge:** The workgroup will focus on pathogen-specific issues for Infection Control in Healthcare Personnel. Where information is out of date, the Workgroup will make updates using evidence-based methods where evidence is available.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Status Report

- **Section 1: Infrastructure and Routine Practices for Occupational Infection Prevention and Control Services** published October 2019:
<https://www.cdc.gov/infectioncontrol/guidelines/healthcare-personnel/infrastructure.html>
- **Section 2: Epidemiology and Control of Selected Infections Transmitted Among HCP and Patients:**
- Diphtheria, Group A *Streptococcus*, Meningococcal Disease, Pertussis published November 2021 and Rabies published November 2022:
<https://www.cdc.gov/infectioncontrol/guidelines/healthcare-personnel/selected-infections/index.html>

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Status Report

- In Progress: Measles, Mumps, Rubella, and Varicella are completing clearance and will then be posted to the Federal Register.
- The Pregnant HCP section is posted to the Federal Register for public comment until June 26, 2023.
- Cytomegalovirus, Parvovirus B19, and Conjunctivitis draft recommendations are being presented and voted on at today's meeting and, pending approval, will go into clearance.
- *S. aureus* is on hold pending a literature review.
- “On Deck:” Scabies/Pediculosis, Hepatitis A, Bloodborne Pathogens (Hepatitis B, Hepatitis C, HIV), Herpes, Tuberculosis, Gastroenteritis

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Section 2: Cytomegalovirus, Parvovirus B19, and Conjunctivitis

- The workgroup has proposed updated draft recommendations for these sections.
- The narrative sections, to support the draft recommendations, are in progress.
- CDC SMEs have provided some initial input on the draft narrative.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

1998 Cytomegalovirus Recommendations

- Do not restrict personnel from work who contract CMV-related illnesses. Category IB
- Ensure that pregnant healthcare personnel are aware of the risks associated with CMV infection and infection control procedures to prevent transmission when working with high-risk patient groups. Category IA
- Do not routinely use workplace reassignment as a method to reduce CMV exposures among seronegative pregnant healthcare personnel. Category IA

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Cytomegalovirus DRAFT Recommendations

1. Work restrictions are not necessary for healthcare personnel who have an exposure to cytomegalovirus.
2. Work restrictions are not necessary for healthcare personnel with active cytomegalovirus infection.

For recommendations about healthcare personnel who are pregnant or intending to become pregnant and exposure to cytomegalovirus, please see the **Pregnant HCP** section.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

1998 Parvovirus B19 Recommendations

- Ensure that pregnant healthcare personnel are aware of the risks associated with parvovirus infection and of infection control procedures to prevent transmission when working with high-risk patient groups. Category IB
- Do not routinely exclude pregnant healthcare personnel from caring for patients with B19. Category IB

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Parvovirus B19 DRAFT Recommendations

1. For asymptomatic healthcare personnel who have an exposure to parvovirus B19, they may continue to work, including providing direct care to patients at increased risk for complications from parvovirus B19 infection, if they wear a source control device (e.g., facemask) for 14 days after their last exposure.
2. For symptomatic healthcare personnel who have had an exposure to parvovirus B19 within the previous 14 days and have signs or symptoms of the prodrome of parvovirus B19 infection (e.g., fever, cough):
 - They should be evaluated by OHS.
 - If they are suspected or known to have acute parvovirus B19 infection, they should be restricted from work for 5 days from the onset of their symptoms and until they have been fever-free for at least 24 hours, whichever is longer.
 - If fever is not resolved or other prodromal symptoms are not improving after 5 days, they should be reevaluated by OHS.
 - Upon return to work, if respiratory symptoms have not completely resolved, they should continue to wear a source control device (e.g., facemask) until resolution of their respiratory symptoms.

For recommendations about healthcare personnel who are pregnant or intending to become pregnant, please see the **Pregnant HCP** section.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

1998 Conjunctivitis Recommendation

- Restrict personnel with epidemic keratoconjunctivitis or purulent conjunctivitis caused by other microorganisms from patient care and the patient's environment for the duration of symptoms. If symptoms persist longer than 5 to 7 days, refer personnel to an ophthalmologist for evaluation of continued infectiousness.

Category IB

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Literature review background

- A debate in the literature about work restriction duration led to the decision to conduct a literature review.
 - 14 days vs. duration of symptoms for epidemic keratoconjunctivitis
- 14 days is different from the 1998 recommendation, so the workgroup wanted to confirm no harm recommending duration of symptoms.
- The Key Question was developed by subject matter experts to address the appropriate duration of work restriction for adults with conjunctivitis working in healthcare settings. The resultant Key Question was vetted and approved by the Healthcare Infection Control Practices Advisory Committee (HICPAC)

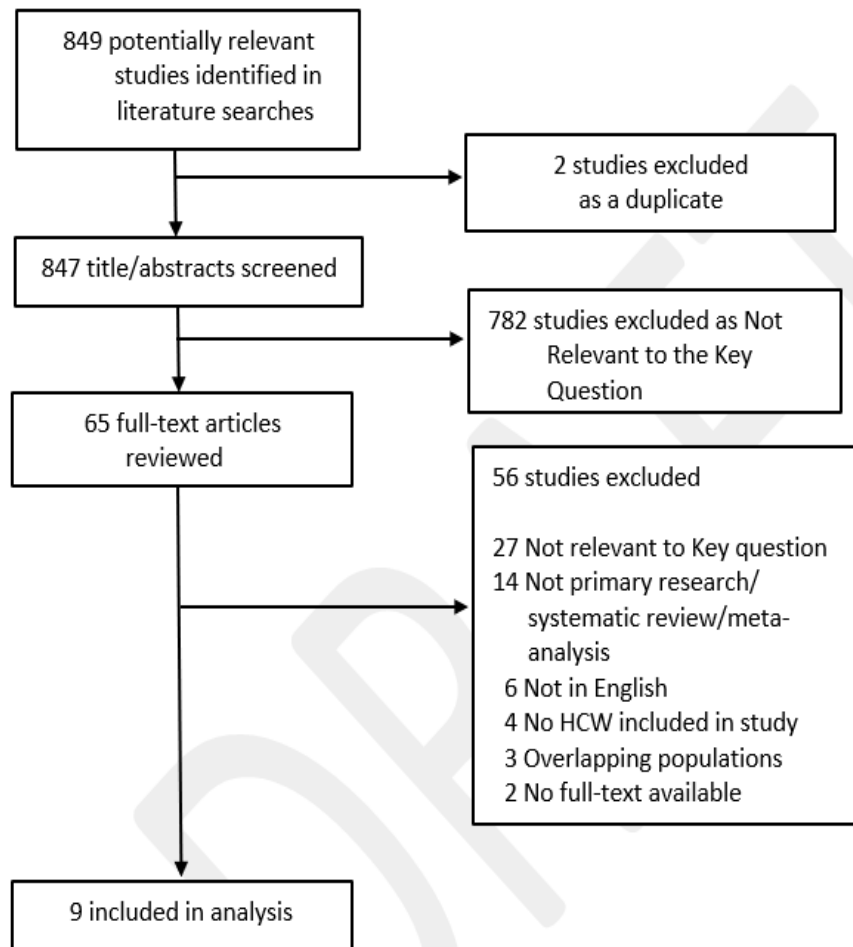
Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Key Question

- For adults with conjunctivitis working in healthcare settings, does work restrictions for duration of symptoms, compared with work restrictions for 14 days, prevent transmission of conjunctivitis in healthcare settings?

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Figure 1. Results of the Study Selection Process.



Literature review: Results

- One observational¹ and eight descriptive outbreak studies²⁻⁹ implemented work restrictions as one of multiple sequential or concurrent infection control measures.
- Duration of work restrictions varied from duration of symptoms^{3,6,7} to 10 days⁸ or 14-15 days.^{1,2,4,5,9}
- Both methods helped end outbreaks, but 10 to 14-15 day work restrictions were lengthened when HCP still had active conjunctivitis.
 - HCP may be able to return to work earlier or may need to be restricted longer than 14 days.
 - Cost savings are inconclusive and staffing shortages are not addressed.^{6,9}
- In one outlier report,⁹ transmission ended after implementing screening and furloughing of asymptomatic HCP - both methods would have failed.
- Evidence is insufficient to warrant a change in recommendation.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Conjunctivitis DRAFT Recommendations

1. For healthcare personnel with purulent conjunctivitis, including epidemic keratoconjunctivitis, exclude from work for the duration of their symptoms.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Acknowledgments

Infection Control in Healthcare Personnel Workgroup Members: Colleen Kraft (chair), Hilary Babcock, Vickie Brown, Ruth Carrico, Nicholas Daniels, Elaine Dekker, Michael Anne Preas, Mark Russi, Connie Steed, Michael Tapper (in memoriam), Tom Talbot, David Weber

CDC Support:

Workgroup DFO: David T. Kuhar

Technical Support: Marie De Perio (NIOSH), Devon Okasako-Schmucker, Christine So, Erin Stone, plus pathogen-specific SMEs

CDC/DHQP Support: Sydney Byrd, Laura Wells

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Discussion/Comments/Questions



Vote:

Cytomegalovirus, Parvovirus B19, Conjunctivitis recommendations



Cytomegalovirus DRAFT Recommendations

1. Work restrictions are not necessary for healthcare personnel who have an exposure to cytomegalovirus.
2. Work restrictions are not necessary for healthcare personnel with active cytomegalovirus infection.

For recommendations about healthcare personnel who are pregnant or intending to become pregnant and exposure to cytomegalovirus, please see the **Pregnant HCP** section.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Parvovirus B19 DRAFT Recommendations

1. For asymptomatic healthcare personnel who have an exposure to parvovirus B19, they may continue to work, including providing direct care to patients at increased risk for complications from parvovirus B19 infection, if they wear a source control device (e.g., facemask) for 14 days after their last exposure.
2. For symptomatic healthcare personnel who have had an exposure to parvovirus B19 within the previous 14 days and have signs or symptoms of the prodrome of parvovirus B19 infection (e.g., fever, cough):
 - They should be evaluated by OHS.
 - If they are suspected or known to have acute parvovirus B19 infection, they should be restricted from work for 5 days from the onset of their symptoms and until they have been fever-free for at least 24 hours, whichever is longer.
 - If fever is not resolved or other prodromal symptoms are not improving after 5 days, they should be reevaluated by OHS.
 - Upon return to work, if respiratory symptoms have not completely resolved, they should continue to wear a source control device (e.g., facemask) until resolution of their respiratory symptoms.

For recommendations about healthcare personnel who are pregnant or intending to become pregnant, please see the **Pregnant HCP** section.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Conjunctivitis DRAFT Recommendations

1. For healthcare personnel with purulent conjunctivitis, including epidemic keratoconjunctivitis, exclude from work for the duration of their symptoms.

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.

Literature review: References

1. Gottsch JD, Froggatt JW, 3rd, Smith DM, et al. Prevention and control of epidemic keratoconjunctivitis in a teaching eye institute. *Ophthalmic Epidemiol.* Mar 1999;6(1):29-39. doi:10.1076/oep.6.1.29.1564
2. Calkavur S, Olukman O, Ozturk AT, et al. Epidemic adenoviral keratoconjunctivitis possibly related to ophthalmological procedures in a neonatal intensive care unit: lessons from an outbreak. *Ophthalmic Epidemiol.* Dec 2012;19(6):371-9. doi:10.3109/09286586.2012.718402
3. Chaberny IE, Schnitzler P, Geiss HK, Wendt C. An outbreak of epidemic keratoconjunctivitis in a pediatric unit due to adenovirus type 8. *Infect Control Hosp Epidemiol.* Jul 2003;24(7):514-9. doi:10.1086/502247
4. Ersoy Y, Otlu B, Türkçüoğlu P, Yetkin F, Aker S, Kuzucu C. Outbreak of adenovirus serotype 8 conjunctivitis in preterm infants in a neonatal intensive care unit. *J Hosp Infect.* Feb 2012;80(2):144-9. doi:10.1016/j.jhin.2011.11.007
5. Jernigan JA, Lowry BS, Hayden FG, et al. Adenovirus type 8 epidemic keratoconjunctivitis in an eye clinic: risk factors and control. *J Infect Dis.* Jun 1993;167(6):1307-13. doi:10.1093/infdis/167.6.1307
6. Kuo IC, Gower EW. Cost Savings From a Policy to Diagnose and Prevent Transmission of Adenoviral Conjunctivitis in Employees of a Large Academic Medical Center. *JAMA Ophthalmol.* May 1 2021;139(5):518-524. doi:10.1001/jamaophthalmol.2021.0150
7. Massey J, Henry R, Minnich L, Lamson DM, St George K. Notes from the Field: Health Care-Associated Outbreak of Epidemic Keratoconjunctivitis--West Virginia, 2015. *MMWR Morb Mortal Wkly Rep.* Apr 15 2016;65(14):382-3.
8. Montessori V, Scharf S, Holland S, Werker DH, Roberts FJ, Bryce E. Epidemic keratoconjunctivitis outbreak at a tertiary referral eye care clinic. *Am J Infect Control.* Aug 1998;26(4):399-405. doi:10.1016/s0196-6553(98)70035-5
9. Angueyra MF, Marcone DN, Escarrá F, et al. Direct costs and clinical impact of adenovirus genotype 8 conjunctivitis outbreak in a neonatology unit. *Infect Control Hosp Epidemiol.* Feb 2021;42(2):142-148. doi:10.1017/ice.2020.404

Disclaimer: The findings and conclusions herein are draft and have not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy.