*Chicago Department of Public Health*

# Health Update

HEALTHY CHICAGO

City of Chicago
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***Immunization Program***

Chicago Department of Public Health
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# *Clinical Guidelines for Management of Healthcare Personnel Exposed to Pertussis*

## Background

Prevention of pertussis transmission in health-care settings involves diagnosis and early treatment of clinical cases, droplet precautions of infectious patients, exclusion from work of health-care personnel (HCP) who are infectious, and post-exposure prophylaxis (PEP).

The Advisory Committee of Immunization Practices (ACIP) recommends post-exposure antimicrobial prophylaxis for all HCP who have unprotected exposure to pertussis and are likely to expose a patient at risk for severe pertussis (e.g., hospitalized neonates and pregnant women).[1] Other HCP should either receive post-exposure antimicrobial prophylaxis or be monitored daily for 21 days after pertussis exposure and treated at the onset of signs and symptoms of pertussis (and be excluded through day 5 of a regimen of appropriate antibiotics if they become symptomatic).

The Association for Professionals in Infection Control and Epidemiology (APIC) has recommended that infection preventionists should work with personnel health services (PHS) to develop plans for appropriate follow-up of possible occupational exposure to pertussis involving both vaccinated and unvaccinated HCP.[2]

## What is close contact among healthcare personnel?

| **Table 1. Examples of close contact situations for health-care personnel exposed to pertussis.** | |
|---|---|
| **1** | Having face-to-face contact within 3 feet of the case-patient without wearing a surgical mask or other protection of the face and respiratory tract; this includes performing a medical examination without a mask or obtaining a NP swab specimen or other procedures which generate small aerosols such as open suctioning, intubating or performing bronchoscopy without a surgical mask, eyewear and gloves. |
| **2** | Conducting any procedure that induces coughing of the case-patient, even if farther from the case-patient than 3 feet, without wearing a surgical mask, eye wear and gloves. |
| **3** | Coming into direct mucosal contact with respiratory, oral or nasal secretions of the case-patient or via fomites. |
| **4** | Sharing a room with the case-patient; the degree of contact and risk of infection in such situations should be evaluated on a case-by-case basis. |
| **5** | Having any other close contact with a case-patient. |

*●Please note: If a surgical mask was worn by the case-patient and/or the contact during the entire exam, there is no need for prophylaxis of the contact. If a surgical mask, eyewear and gloves were worn by the healthcare worker during specimen collection, there is no need for prophylaxis for the healthcare worker. However, this guidance does not allow a health care provider who is infectious with pertussis to continue working, even if wearing a mask.*
*●In general, individuals who were in waiting rooms or other care areas at the same time as a pertussis case-patient should not be considered close contacts.*

## Reporting Recommendations

Cases of pertussis among patients and HCP must be reported to the Chicago Department of Public Health by calling (312) 746-5911, Monday-Friday between 8:30am-4:30pm. After hours, weekends, and holidays, call 311 and ask for the communicable disease physician on-call.

**Table 2. Testing, treatment and exclusion recommendations for health-care personnel exposed to pertussis.**

| Healthcare Personnel | Cough* Duration | Diagnostic Evaluation | Treatment/Prophylaxis | Exclusion |
|---|---|---|---|---|
| ***Symptomatic*** | **Coughing for ≤ 21 days** | Refer for medical evaluation and diagnostic testing. | Begin on empiric antibiotic treatment. Treatment is recommended regardless of immunization status. | Exclude from duty until the completion of the first 5 days of antibiotic therapy or 21 days from the onset of cough for those who do not receive antibiotic treatment. |
| | **Coughing for > 21 days** | Refer for medical evaluation and diagnostic testing. | Antibiotic treatment for individuals is not recommended, as initiating treatment >21 days after onset of cough is unlikely to be beneficial. † | No restriction from duty. |
| ***Asymptomatic*** | **If last exposure occurred ≤21 days ago** | Refer for medical evaluation and diagnostic testing only if HCP develops symptoms suggestive of pertussis. | Antimicrobial prophylactic therapy is recommended for all health care personnel who have unprotected exposure to pertussis and are likely to expose a patient at risk of severe pertussis (e.g., hospitalized neonates and pregnant women). Other health care personnel should either (a) receive post exposure antimicrobial prophylaxis or (b) be monitored daily for 21 days after pertussis exposure and treated at the time of onset of signs and symptoms of pertussis (and be excluded through day 5 of a regimen of appropriate antibiotics if they become symptomatic). | No restriction from duty is required, unless antibiotics are not taken when indicated. If antibiotics are not taken and healthcare personnel cannot comply with daily monitoring, exclusion should occur for 21 days from last exposure to the infectious case. |
| ***Asymptomatic*** | **If last exposure occurred >21 days ago** | None needed. | Antimicrobial prophylactic therapy is not needed, as initiating prophylaxis >21 days after onset of cough is unlikely to be beneficial. | No restriction from duty is required. |

* The ACIP recommendations do not distinguish work restrictions based on cough duration for HCP exposed to pertussis.
†***situations in which treatment is recommended >21 days after cough onset:*** *Treatment should be initiated within 42 days (6 weeks) of cough onset in infants aged <1 year and pregnant women (especially near term); treatment should be initiated in any coughing individual who is culture positive, regardless of time since cough onset*

## References


1. CDC. Immunization of health-care personnel: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep. 2011 Nov 25;60(RR-7):1-45. http://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf

2. APIC Practice Guidance Committee: Implementation Insights Prevention & Control of Pertussis. August 14, 2012. http://www.apic.org/Resource_/TinyMceFileManager/Practice_Guidance/Pertussis_Talking_Points_8-14-2012.pdf

CDC. Manual for the Surveillance of Vaccine-Preventable Diseases. Chapter 10: Pertussis. http://www.cdc.gov/vaccines/pubs/surv-manual/chpt10-pertussis.html [Page last updated: May 19, 2015]

CDC. Recommended antimicrobial agents for the treatment and postexposure prophylaxis of pertussis: 2005 CDC Guidelines. MMWR. 2005;54(RR14):1-16 http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5414a1.htm