

Summary of Updated Pertussis Post-Exposure Prophylaxis Guidelines
Wisconsin Department of Health Services
Division of Public Health
February 18, 2014

Background: During November 2013, the Centers for Disease Control and Prevention (CDC) updated its guidance regarding who should receive post-exposure prophylaxis (PEP) with appropriate antibiotics following contact to patients with pertussis. Broad-scale use of PEP is no longer recommended because there are no data to indicate that widespread PEP effectively controls outbreaks and there is concern regarding the overuse of antibiotics. PEP is now recommended only for household contacts, individuals at highest risk of developing severe pertussis, and individuals who have close contact with persons at highest risk of developing severe pertussis.

Updated Guidance: Accordingly, the Wisconsin Division of Public Health (WDPH) recommends **close contacts*** to patients with pertussis be managed as follows (see updated Algorithm II):

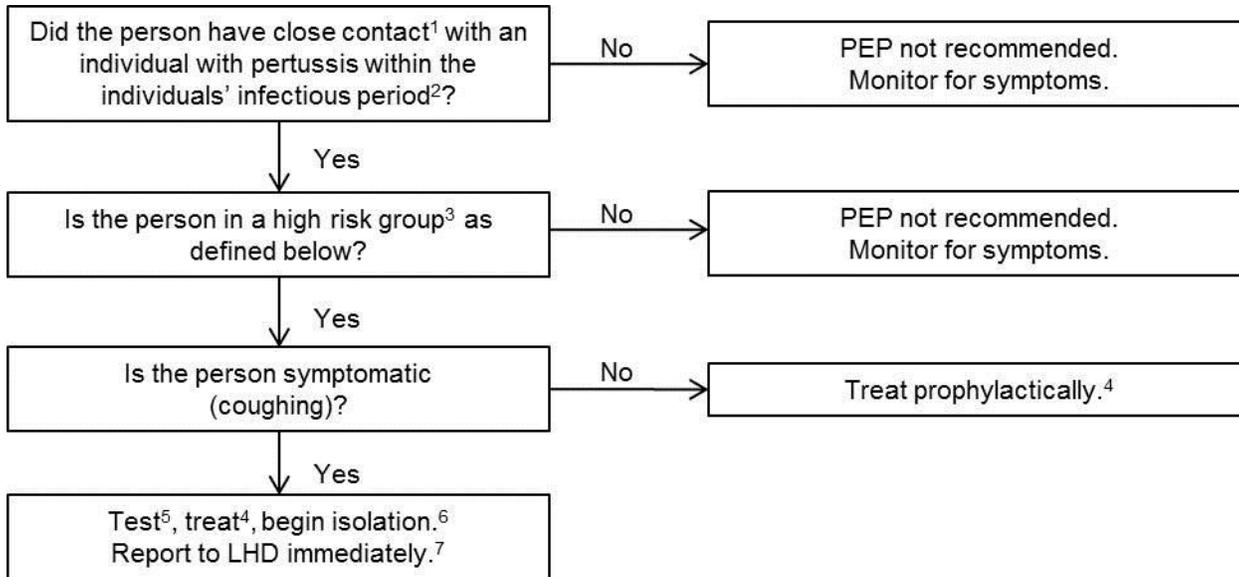
1. PEP is recommended for close contacts who are included in one or more of these groups:
 - a. Household contacts
 - b. Persons at high risk of severe illness:
 - i. Infants aged <1 year
 - ii. Pregnant women in their third trimester (because they may be a source of *Bordetella pertussis* for their newborn infants)
 - iii. Persons with pre-existing health conditions that may be exacerbated by *B. pertussis* infection (for example, but not limited to, immunocompromised persons, patients with moderate to severe medically treated asthma)
 - c. Persons who have contact with those at high risk of severe illness (listed i-iii above)
 - d. All persons in high-risk settings that include infants aged <1 year or women in their third trimester of pregnancy (for example, NICU, childcare settings, maternity wards)
2. For all other close contacts, PEP is **not** recommended. All other close contacts should be actively screened for symptoms and referred for testing/treatment if symptoms develop. Of particular note, PEP is no longer recommended for close contacts in a school setting unless the close contact is in one of the groups listed above.
3. Exception: If there is an outbreak in a limited closed setting (for example, a prison), PEP may be used to attempt to interrupt *B. pertussis* transmission in that closed setting. If continued transmission occurs in that setting, multiple rounds of PEP are not recommended. Instead, contacts should be monitored for signs and symptoms for 21 days.
4. In general, multiple courses of PEP are **not** recommended if re-exposure occurs. Instead, contacts should be monitored for signs and symptoms for 21 days. However, in some situations (for example, re-exposure of an infant aged <6 months) re-prophylaxis may be warranted.

*see definition of a close contact in Algorithm II

Reference: <http://www.cdc.gov/pertussis/outbreaks/PEP.html>

Updated Algorithm II: Clinical Guidelines for Management of Contacts of an Individual with Pertussis

Post-exposure prophylaxis (PEP) is now recommended only for household contacts, individuals at highest risk of developing severe pertussis, and individuals who have close contact with persons at highest risk of developing severe pertussis.



¹**Close contact** includes:

- Direct face-to-face contact for a period of time (duration not defined)
- Shared confined space in close proximity for a prolonged period of time, such as ≥ 1 hour
- Direct contact with respiratory, oral, or nasal secretions (e.g., an explosive cough or sneeze in the face). Note: Droplet precautions apply only if the suspected exposure occurred within a three-foot radius.
- Contact in a setting with known pertussis transmission (e.g., two or more cases in same classroom or sports team).

²The infectious period is defined as one week before cough onset to 21 days after cough onset if untreated or 5 days after initiation of appropriate antibiotic therapy. Infants aged <1 year with pertussis remain infectious for longer periods (up to 42 days from cough onset) if untreated.

³**High-risk groups** include:

- A. Household contacts
- B. Infants aged <1 year
- C. Pregnant women in their third trimester of pregnancy
- D. Individuals with pre-existing health conditions that may be exacerbated by a pertussis infection (e.g., immunocompromised individuals, individuals with moderate to severe medically treated asthma)
- E. Individuals who have close contact with anyone in groups B, C or D above.

⁴Prophylactically treat patient with an appropriate antibiotic if within 21 days of last contact with a case. If the person is symptomatic, treat with an appropriate antibiotic if within 21 days of cough onset or within 42 days of cough onset for infants aged <1 year. A macrolide is the antibiotic of choice for treatment and prophylaxis of pertussis. Treat regardless of vaccination status.

⁵Testing should only be conducted on symptomatic persons. Polymerase chain reaction (PCR) is most successful if the specimen is obtained within the first 21 days after cough onset. Culture is most successful if the specimen is obtained within the first 14 days after cough onset. If feasible, specimens should be collected for both PCR and culture. If specimens for both tests cannot be collected, PCR testing is preferred.

⁶Exclude patients from work, school or other public contact until at least 5 days of appropriate antibiotic treatment have been completed or until 21 days after onset of cough if appropriate antibiotic treatment is not taken.

⁷Your Local Health Department (LHD) will assist with isolation and contact management. Note that pertussis is a Category 1 reportable disease.