



Philadelphia Department of Public Health
Division of Disease Control

DONALD F. SCHWARZ, MD, MPH
Deputy Mayor, Health & Opportunity
Health Commissioner

NAN FEYLER, JD, MPH
Chief of Staff

CAROLINE C. JOHNSON, MD
Director, Division of Disease Control

Health Update

Increased Pertussis Activity

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The Philadelphia Department of Public Health (PDPH), Division of Disease Control (DDC) has observed an increase in pertussis, a contagious respiratory disease caused by *Bordetella pertussis* over the past month. Thirty-three cases of pertussis were reported in June, compared with an average of 3 cases confirmed during the same time period for each of the previous 5 years. Healthcare providers are encouraged to consider pertussis in patients with pertussis-like symptoms including paroxysmal cough, posttussive vomiting, or whoop; collect specimens for laboratory testing; treat suspected cases and their close contacts with an appropriate antibiotic regimen; and ensure patients are up-to-date with their immunizations.

- Consider the diagnosis of pertussis in individuals with respiratory illness accompanied by a protracted cough, particularly if the cough is paroxysmal or followed by vomiting. Infants and older persons may have atypical presentations. During the first stage of pertussis, the catarrhal stage, symptoms may be similar to the common cold and typically last 1-2 weeks before paroxysms of numerous, rapid coughs and a whoop sound begin.
- Confirm the diagnosis of pertussis with a nasopharyngeal specimen collected via wash or Dacron swab, even if cough has been present for several weeks. Submit to an appropriate clinical laboratory for polymerase chain reaction (PCR) testing and/or culture. Optimal sensitivity of PCR testing for pertussis is during the first 3 weeks of cough. Culture is best performed within the first 2 weeks of cough. Specimen collection for PCR should be completed while wearing a mask and newly changed gloves, preferably in an environment separate from pertussis vaccine preparation to avoid contamination with pertussis DNA from the vaccines.
- Antimicrobial therapy is recommended for all cases to limit the spread of disease to others, even if cough has been present for several weeks. Appropriate treatment includes: a 5-day course of azithromycin; a 7-day course of clarithromycin; a 14-day course of erythromycin; or a 14-day course of trimethoprim-sulfamethoxazole (alternative treatment).
- Individuals with a laboratory confirmed or clinically suspect diagnosis or who are symptomatic and have had contact with a confirmed pertussis case should stay home from work, camp, childcare, or any other public activities until they have completed at least 5 days of antibiotic treatment. Antibiotic prophylaxis is recommended for *all* household and close contacts of a pertussis case, regardless of immunization status or age. If 21 days have elapsed since the onset of cough in the index case, chemoprophylaxis has limited value but should be considered for households with high-risk contacts (e.g., young infants, pregnant women and people who have contact with infants). Antibiotic prophylaxis for pertussis is the same as for treatment.
- In addition to the routine childhood series (five doses of DTaP vaccine); a single dose of Tdap (tetanus, reduced diphtheria, and acellular pertussis) vaccine should be given to all persons 11-18 years of age (preferably at age 11-12 years). Adults 19 through 64 years of age should receive a single dose of Tdap as a replacement to their next tetanus and diphtheria toxins (Td) booster. For adults 65 and older who have close contact with an infant and have not previously received Tdap, one dose should be received. Tdap should also be given to 7-10 year olds who are not fully immunized against pertussis.
- Because newborns are at high risk for pertussis and its complications, vaccination of women of childbearing age is especially important. Optimally, women should receive a dose of Tdap before becoming pregnant, but vaccination may also be given during the late 2nd or 3rd trimester of pregnancy, or immediately postpartum. To further protect infants, all family and close contacts should be up-to-date on their pertussis vaccinations.

All suspected or confirmed cases of pertussis should be reported to PDPH by calling 215-685-6748 or faxing a report to 215-238-6947. Information on reporting, specimen collection, and patient fact sheets is available at hip.phila.gov.

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Division of Disease Control • 500 South Broad Street, Philadelphia, PA 19146
215-685-6740 (phone) • 215-686-4514 (after hours) • 215-545-8362 (fax) • www.phila.gov/health/DiseaseControl • hip.phila.gov