



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 Advisory

Recommendations for Diagnosis and Control of Pertussis

January 19, 2012

The Division of Disease Control (DDC), Philadelphia Department of Public Health has recently observed an increase in pertussis cases. From late December 2011 to present, PDPH has received 12 pertussis reports, which is roughly twice the number normally reported during this period. One of the 12 cases resulted in an infant death. Significant elevations in pertussis cases are also being reported from counties surrounding Philadelphia and from southern New Jersey.

Pertussis is a contagious respiratory disease caused by the bacterium *Bordetella pertussis*. Although completion of the primary vaccination series affords protection from pertussis in childhood, immunity wanes after 5 years. Susceptible infants, who are at the highest risk of developing complications, often acquire pertussis through contact with an infected adolescent or adult living in the household. Assuring adequate immunization of household contacts helps to protect infants from pertussis, a strategy commonly referred to as *cocooning*.

- 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.
- 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.
- Antimicrobial therapy is recommended for all cases to limit the spread of disease to others, even if cough has been present for several weeks. Azithromycin, clarithromycin, and erythromycin, are the drugs of first choice; trimethoprim-sulfamethoxazole (TMP-SMX) is an alternative.
- 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 people 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. 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. Waiting at least 2 years since the last dose of Td is suggested, but not required.
- Because newborns are at high risk from pertussis and 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.

Message #: PDPH-HAN-00160V-01-19-12

Philadelphia Department of Public Health

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