



Philadelphia Department of Public Health
Division of Disease Control

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Health Advisory

Pertussis in a Philadelphia Elementary School and Increased Community Transmission May 5, 2008

The Philadelphia Department of Public Health (PDPH) Division of Disease Control has been investigating an outbreak of pertussis cases among elementary school students who attend an independent day school in northwest Philadelphia. Nineteen cases are under investigation thus far, with the majority of cases occurring among students in grades 2, 3, 4, and 5. Most have had onset of cough illness in late March and early April, although new cases continue to present for medical attention. PDPH has recommended the following control measures for cases and contacts from the school associated with this outbreak:

1. Any child or staff member with a prolonged cough illness or other suspicious symptoms should be suspected to have pertussis, and tested for this infection. They should be excluded from school until they have completed 5 days of an appropriate treatment (see below), or have evidence of a negative test obtained on a nasopharyngeal clinical specimen.
2. Post-exposure antimicrobial prophylaxis should be prescribed for all students and teachers in classrooms with at least one case of pertussis, in addition to the student's household and other close contacts. School officials are sending letters home to parents of students in affected classes indicating that they have had close contact with a case.
3. Provision of DTaP or Tdap vaccine, as appropriate for age, for all students who are not up to date with their immunizations. **All adolescents age 11-18 years should receive a single dose of Tdap if they have not already received an adolescent dose of this vaccine, and have not received a Td-containing vaccine within 2 years.**

Throughout the month of April, there has been an increase in reported cases of pertussis to PDPH, compared with previous months. Investigation into these cases is ongoing. Some cases have occurred in residents of northwest Philadelphia, but with no obvious connection to the elementary school outbreak. There are other unrelated cases citywide. The Philadelphia Department of Public Health recommends the following measures to control pertussis:

1. Consider the diagnosis of pertussis in persons who present for medical evaluation with a protracted cough illness, particularly if the cough is associated with paroxysms, post-tussive vomiting, or an inspiratory whoop. The clinical illness in older children or adolescents may be a relatively mild illness with prolonged cough.

2. Obtain a nasopharyngeal specimen from all suspected cases of pertussis for pertussis culture, PCR or DFA testing if it is available. Diagnostic testing that relies on the isolation or identification of *B. pertussis* is preferred to serologic testing.
3. Treat all cases of pertussis with one of the following recommended treatments:
 - a. 5-day course of azithromycin
 - b. 7-day course of clarithromycin
 - c. 14-day course of erythromycin
 - d. 14-day course of trimethoprim-sulfamethoxazole (alternative agent)
4. **All household contacts of cases of pertussis should receive post-exposure prophylaxis.** Ideally, contacts should receive prophylaxis within 3 weeks of exposure, especially in high-risk settings. The recommended regimens are the same as the treatment schedule.
5. Ensure that all childhood immunizations for pertussis are up-to-date, according to the schedule recommended by the Centers for Disease Control and Prevention. A single dose of Tdap (Tetanus toxoid and Reduced Diphtheria and acellular pertussis vaccine) is recommended for all children age > 11 years, and adults aged < 65 years. **Anyone who has close contact with infants under 1 year should be fully immunized against pertussis, including parents, grandparents <65 years, childcare providers, healthcare workers, women in the post-partum period, or any women who might become pregnant.**

If you have questions about pertussis or any of these recommendations, or to report a suspected or confirmed case, please contact the Division of Disease Control at 215-685-6740. After hours call 215-686-1776 and ask to speak with the person on-call for the Division.