



Health Advisory May 27, 2014

Department of Health Services
Public Health Division
(510) 981-5300

Pertussis Increase Continues

Janet Berreman, MD, MPH
Health Officer

Please distribute to all providers in your practice

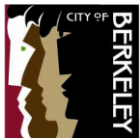
Current Situation and Update

- More than 1700 cases of pertussis have been reported to the California Department of Public Health since January 2014. This is more than a threefold increase compared to the same period in 2013.
- In Berkeley, there have been more than 20 cases of pertussis reported since January. This is a 5-fold increase compared to last year at this time. Berkeley cases range from infants to teenagers, with most being 10 -17 years of age. Cases have involved at least two schools in the Berkeley Unified School District.
- Infants too young to be fully immunized remain most vulnerable to severe and fatal pertussis. Statewide, most of the 77 hospitalized cases to date have been in children 3 months of age or younger. Two pertussis deaths, the first reported in California since 2010, occurred in infants. There have been no pertussis hospitalizations or deaths reported in Berkeley.
- Statewide, over 90% of reported pertussis cases have been in children younger than 18 years of age, with 32% being 14 through 16 years of age. Outbreaks of pertussis in elementary, middle, and high schools have been reported throughout the state.
- Immunity from acellular pertussis vaccine wanes more quickly than immunity from the previous whole-cell vaccine. (Whole-cell vaccines were removed from the U.S. childhood vaccine series in 1997.) Data suggest that the State is entering another cyclical peak of pertussis, similar to that of 2010.

Recommendations for Clinicians:

Vaccinate

- Immunize **all** women, irrespective of their immunization history, with Tdap during **every** pregnancy between 27-36 weeks' gestation to optimize antibody transfer and protection of infants at birth. This is the most important measure to help protect young infants against pertussis. Tdap during pregnancy has not been found to be associated with an increased risk of adverse events in vaccinated women or their infants. Immunization of pregnant women with Tdap is covered by insurers, including Medi-Cal.
 - Postpartum vaccination does not provide transplacental antibodies to newborns but may prevent maternal acquisition and transmission of pertussis. If the postpartum mother has never received Tdap, promptly administer Tdap before discharge home.
- Advise women during pregnancy and delivery that other adults in contact with the newborn, such as fathers, grandparents, older siblings, and babysitters, should also be up-to-date with their Tdap vaccine.
- Immunize young infants promptly with DTaP. During a community outbreak, the first dose of DTaP can be given as early as 6 weeks of age, especially to infants whose mothers did not receive Tdap during pregnancy. The primary DTaP vaccine series reduces severe



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disease in young infants, and even the first dose may offer some protection against fatal disease.

- Encourage all persons to be up-to-date with current pertussis vaccination recommendations. As part of the “cocooning” strategy, all close contacts of infants (e.g., parents, siblings, grandparents, child care providers, etc.) and all healthcare personnel should be immunized against pertussis, particularly those who work with infants or pregnant women.

Test and treat

- Diagnosing pertussis in young infants is challenging, as they may have little or no cough, whoop, or fever. Mild illness may quickly progress to respiratory distress, apnea, cyanosis, or seizures. Delays in treatment may increase the risk of a fatal outcome. A white blood cell count of $\geq 20,000$ cells/mm³ with $\geq 50\%$ lymphocytes is a strong indication of pertussis.
- Consider pertussis **even in recently vaccinated people** when evaluating patients with symptoms compatible with pertussis. Immunity after immunization wanes within a few years.
- Consider pertussis **regardless of age** in patients with persistent cough. Symptoms are generally milder in teens and adults, especially in those who have received Tdap. Adults may report sweating episodes or feeling as if they’re choking.
- For testing by PCR or culture, obtain a nasal aspirate (preferable) or nasopharyngeal swab. Serologic testing for pertussis is not recommended.
- **Report all suspected pertussis cases to City of Berkeley Public Health Communicable Disease Program. Please fax Confidential Morbidity Reports to 510-981-5345.**
- Initiate antibiotic treatment prior to obtaining test results, especially in infants and pregnant women or those who are in close contact with them. Azithromycin is preferred because of efficacy and compliance.
- Instruct patients with pertussis to stay home from school or daycare until they have received 5 days of antibiotics, and to avoid contact with infants and pregnant women.
- Provide antibiotic prophylaxis to household contacts, caregivers, and other persons who have had direct contact with respiratory, oral, or nasal secretions and aerosols from a symptomatic case, especially when there is an infant or pregnant woman in the home. The dosage and duration for antibiotic prophylaxis is the same as treatment and should not be shortened.

Resources and Educational Materials

- California Department of Public Health pertussis website:
<http://www.cdph.ca.gov/HealthInfo/discond/Pages/Pertussis.aspx>
- Center for Disease Control and Prevention pertussis webpage for clinicians:
<http://www.cdc.gov/pertussis/clinical/index.html>
- **REPORTING information:** City of Berkeley Public Health Division:
http://www.ci.berkeley.ca.us/Health_Human_Services/Public_Health/Communicable_Disease_Reporting.aspx