



To: CAHAN San Diego Participants
Date: August 11, 2014

Pertussis Epidemic in San Diego County and California

This health alert informs the local medical community of continued increases in pertussis cases in San Diego County, provides links to treatment and prevention references, and reminds providers about important management issues.

The County of San Diego Health and Human Services Agency (HHSA) has confirmed 1,183 pertussis cases in San Diego so far in 2014, a rate of 37.4 cases per 100,000. This surpasses the 1,179 cases reported locally during the 2010 pertussis epidemic. The California Department of Public Health (CDPH) [has reported](#) 6,930 cases in California through August 4 this year, with a statewide rate of 18.1 cases per 100,000.

Of the 1,183 local cases reported this year, 8% were less than one year of age and 47% were 13 through 18 years of age. Patients ranged in age from 1 month to 96 years, with a median age of 13 years. Nineteen cases (1.6%) required hospitalization and 63% of those hospitalized were less than one year of age. Eighty-four percent of the cases in this period were up-to-date on pertussis vaccinations, with 11% not up-to-date, 1% too young for immunization, and 4% immunization status unknown.

Although most schools are closed for summer break, clusters of cases continued in middle and high school settings in year-round schools, in summer camps, and day programs throughout the county. When cases occur in schools, daycares and over-night camps, staff and families are directly notified and urged to seek care promptly for early symptoms or for contact prophylaxis. The community is notified of public exposures in [County news releases](#).

No San Diego residents have died from pertussis this year, but there have been three deaths in California in 2014: a 5-week-old with symptom onset in 2014 and two infants less than 2 months of age with disease onset in late 2013.

A critical strategy to protect infants too young to be vaccinated is to [immunize every pregnant woman during every pregnancy](#). The preferred time for pregnancy immunization is between 27 and 36 weeks of gestation, although immunization during other stages of pregnancy is safe. Women should be immunized irrespective of prior Tdap history.

In California so far this year, only 12% of the 100 hospitalized pertussis cases in infants under 4 months of age had mothers who had received the recommended Tdap booster in pregnancy. [Recently published data](#) shows that although Tdap coverage improved with national and CDPH recommendations to administer boosters to pregnant women with every pregnancy, the highest coverage rate in California was 30% in 2012. This represents a [significant opportunity](#) to better protect those at highest risk for morbidity and mortality from pertussis. As part of the "cocooning" strategy, all other close contacts of infants (e.g., parents, siblings, grandparents, child care providers) should also have received one Tdap dose at some time in the past.

Recommendations for clinicians:

- Inquire about recent possible pertussis exposures in schools or community settings and consider pertussis **despite vaccination status** when evaluating patients with respiratory symptoms.

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- Consider pertussis **regardless of age** in the differential of patient with unexplained, persistent cough illness. Symptoms of infection are generally milder in teens and adults, especially in those who have been vaccinated.
- Be aware that the [diagnosis of pertussis](#) can be a challenge in [young infants](#) given that the cough may be undetectable or mild and fever is usually not present. Mild illness may quickly transform into respiratory distress and include apnea, hypoxia or seizures. Delays in treatment may increase the risk of fatal illness in young infants, especially those under 3 months of age. A white blood cell count of $\geq 20,000$ cells/mm³ with $\geq 50\%$ lymphocytes is a strong indication of pertussis.
- Obtain a nasal aspirate (preferable) or nasopharyngeal swab for PCR testing and/or culture (available at reference laboratories) when pertussis is in the differential diagnosis. Serologic tests are not recommended.
- Initiate antibiotic [treatment prior to test results](#) in patients with a clinical history suggestive of pertussis or with risk factors for severe complications. Azithromycin is the preferred antibiotic because of efficacy and compliance. Azithromycin is [covered by Medi-Cal](#) for both treatment and prevention of pertussis, and suspension may be prescribed regardless of age.
- Instruct all patients diagnosed with pertussis to stay home from school or daycare until they have completed five days of antibiotics and to avoid contact with infants and others susceptible to the disease.
- Provide [post-exposure prophylaxis \(PEP\)](#) to **all** household contacts, caregivers, and other persons who have had direct contact with respiratory, oral, or nasal secretions from a symptomatic case. PEP antibiotic treatment is the same as treatment for disease and should not be shortened.
- Encourage all individuals, especially pregnant women, to be up-to-date with [current pertussis vaccination recommendations](#). All [healthcare workers](#) should be immunized against pertussis with Tdap.

Recommendations for [Exposed Healthcare Workers](#):

- Healthcare workers (HCW) with unprotected (i.e., unmasked) exposure to pertussis cases may be offered PEP OR they may be monitored for symptoms for 21 days from the time of exposure.
- Decisions on whether to offer PEP or initiate symptom watch should be based upon the population seen by the HCW and the frequency of exposure.
- Symptom watch may be preferred for a HCW in a pediatric clinic where repeated exposures are likely.
- In settings with continued transmission of pertussis, multiple rounds of antibiotics are not recommended.

Useful resources for clinicians include the CDPH [pertussis website](#) and Centers for Disease Control and Prevention [pertussis webpage for clinicians](#).

All suspected or confirmed cases should be promptly reported to the HHS Immunization Program via [Confidential Morbidity Report \(CMR\)](#), by FAX to 619-692-5677 or by calling at 866-358-2966 (select option #5). Questions about pertussis diagnosis, management, or prevention may also be directed to the [Immunization Program](#).

Thank you for your continued participation.

CAHAN San Diego

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