

DEPARTMENT OF

HEALTH AND HUMAN SERVICES

Promoting and protecting health, well-being, self-sufficiency, and safety of all in Marin County.

HEALTH & HUMAN

Lisa Warhuus, PhD

Matthew Willis, MD, MPH PUBLIC HEALTH OFFICER

Lisa M. Santora, MD, MPH
DEPUTY PUBLIC HEALTH OFFICER

3240 Kerner Boulevard San Rafael, CA 94901 415 473 4163 T 415 473 2326 F TTY Dial 711 marinhhs.org/public-health

PUBLIC HEALTH ADVISORY

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Pertussis (Whooping Cough) Outbreak

Dear Colleagues:

This update provides information about recent pertussis activity in Marin County, including disease recognition, testing, reporting procedures, and additional resources for clinicians.

The primary focus of pertussis control efforts is protecting infants from infection.

Current Situation

In December 2023, Marin County Public Health began seeing a rise in reported pertussis cases, primarily among adolescents. Since December, the Communicable Disease unit has investigated 77 cases of pertussis, significantly elevated above normal rates. 52 cases are connected to an on ongoing outbreak at Tamalpais High School.

During this surge in infections, no individuals have been hospitalized with pertussis and no cases among infants have been reported.

Pertussis is cyclic in nature, with peaks in disease every 3 to 5 years. These tend to occur in high school students as immunity wanes from the pertussis vaccine received in 7th grade.

Actions Requested of Providers

- Communicate clearly to parents and patients that a five-day period of isolation is necessary for pertussis-infected individuals, even with treatment. The typical treatment course is five days.
- Recommend Tdap to all pregnant women with each pregnancy, preferably as early as possible, between 27 and 36 weeks of gestation (<u>Prenatal Tdap</u> Toolkit).
- Vaccinate infants, children, adolescents, and adults according to the <u>ACIP</u>
 <u>schedule</u> and implement <u>cocooning</u> around infants. Tdap may be substituted
 for Td for adults when a 10-year booster is needed.
- Think pertussis. Enquire if other household members have recently been sick with a respiratory illness, particularly with paroxysmal coughing and posttussive emesis.
- <u>Test for pertussis</u>. People who have been vaccinated for pertussis often present with mild symptoms. Have a high index of suspicion and a low threshold for testing and evaluating individuals for pertussis.

- <u>Treat pertussis</u> cases with a course of appropriate antimicrobial therapy. The
 recommended antimicrobial agents for the treatment or chemoprophylaxis of
 pertussis are azithromycin, clarithromycin, and erythromycin.
- Report all suspected or confirmed cases to Marin County Public Health,
 Monday through Friday, 8:30 a.m. through 5:00 p.m. (P 415 473 4163, F 415 473 6002, or e-mail MarinCD@marincounty.gov.

Background Information

Pertussis is a highly contagious respiratory infection caused by the bacterial pathogen, *Bordetella pertussis*. The incubation period is typically 7 – 10 days. Persons are infectious from the onset of cold-like symptoms until completion of five days of treatment or until 21 days after cough onset if no or partial treatment is given. Infants less than one year old are considered infectious for six weeks without treatment.

Clinical Presentation

The initial catarrhal stage (1-2 weeks) presents with nonspecific symptoms of fatigue, runny nose, sneezing, and mild cough. Fever is usually absent or minimal. During the paroxysmal stage, severe coughing fits in children often lead to the classic high-pitched whooping sound upon inspiration. Adolescents and adults typically do not produce this sound. Post-tussive vomiting is common in all ages. Illness may be milder in previously vaccinated people.

Consider the diagnosis of pertussis in the following situations, even if the patient has been immunized:

- Persistent or worsening cough, with no fever or a low-grade fever, in an infant
 ≤3 months, or in an older infant without other explanation.
- Persistent or paroxysmal cough with no or low-grade fever accompanied by gagging, post-tussive emesis, or inspiratory whoop in patients of any age.
- Cough illness >2 weeks duration and no alternative diagnosis.

Diagnosis and Treatment

Testing is appropriate until three weeks after the onset of paroxysmal coughing. After three weeks of cough, infectiousness, and test accuracy decreased significantly. Clinicians should obtain a nasopharyngeal (NP) swab or aspirate. PCR is the preferred diagnostic test.

Testing is most critical for symptomatic persons who are either high risk or may be exposed to someone who is high risk. Persons considered at "high risk" of pertussis include:

- Infants (< 1 year old)
- Pregnant women (especially in the third trimester)
- Anyone who may expose infants or pregnant women

If you strongly suspect pertussis:

1. <u>Treat the patient</u>. Do not wait for test results. Negative test results do not rule out pertussis.

- 2. <u>Isolate</u> known or suspected pertussis cases and symptomatic close contacts until five full days of antibiotics have been completed and until the cough is manageable.
- 3. <u>Give post exposure prophylaxis (PEP)</u> to the entire household and highrisk close contacts (see the definition above).

Infection Prevention and Control

Vaccination is the best tool we have for preventing pertussis. The most effective strategy to protect infants who are most at risk for severe pertussis disease is to vaccinate all pregnant women during each pregnancy, preferably between 27 and 36 weeks of gestation. It is also important to vaccinate all children with the DTaP series on time and give a Tdap dose to adolescents and adults. Although most children have been vaccinated for pertussis, protection from the vaccine wanes over time, so some who are fully vaccinated may still become infected. During pertussis outbreaks, infants may begin the pertussis vaccination series at six weeks old.

In addition to vaccination, rapid identification of pertussis cases, appropriate treatment, isolation, and educating patients about good respiratory etiquette helps prevent ongoing transmission. Children and adolescents may return to school after completing five days of antibiotic therapy.

Marin County Public Health contacts cases to determine if there are high-risk individuals who need chemoprophylaxis. High-risk household contacts will be referred to their usual source of care for chemoprophylaxis.

Additional Information

Centers for Disease Control and Prevention (CDC). <u>Pertussis (Whooping Cough)</u> California Department of Public Health (CDPH). <u>Pertussis (Whooping Cough)</u>

Sincerely,

Matt Willis, MD, MPH
Public Health Officer
Matt.Willis@marincounty.gov