



## HEALTH ADVISORY: PERTUSSIS

November 26, 2024

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*This advisory is intended for emergency medicine, urgent care providers, infectious disease, primary care, internal medicine, family practice, pediatric, and OB/GYN providers. Please distribute as appropriate.*

### **Situational update:**

**There has been an increase in the number of reported cases of pertussis in San Mateo County residents this year.** Cases have ranged in age from 0 to 65 years, with the majority in the 15-24 years age range. No hospitalizations have been reported. Clusters of cases have been reported with increasing frequency in elementary and high school settings.

### **Background information and key points:**

**Pertussis is a vaccine-preventable disease but immunity to pertussis from vaccine or disease wanes over time** and persons who have been vaccinated or had disease can become infected. Data on duration of protection from acellular vaccines suggest that waning occurs within several years of vaccination, especially in persons who never received whole-cell vaccine.

**Pertussis is cyclical**, with peaks in cases occurring every 3 to 5 years. Pertussis can cause severe disease and even, in rare instances, death. **Severe disease is most common in infants who are too young to be immunized.**

Protecting these infants is critical. To that end, **every pregnant woman should receive the pertussis vaccine (Tdap)** at the earliest opportunity, in every pregnancy, starting at 27 weeks of gestation. Family members and other individuals who will be involved with the





infant's care should also be up-to-date with their pertussis immunizations, including one dose of Tdap for all those 11 years and older.

Individuals infected with pertussis are considered contagious for 21 days after the onset of cough or until 5 days of antibiotic treatment have been completed. [Several antibiotics can be used for treatment and postexposure prophylaxis](#) (PEP), with **azithromycin being usually the preferred macrolide for both prophylaxis and treatment of pertussis.**

**Actions requested of clinicians:**

1. **Encourage** all individuals to be up-to-date with pertussis vaccination.
  - a. **Every pregnant woman should be immunized in every pregnancy**, optimally at the first opportunity between 27 and 36 weeks of gestation.
  - b. The [primary DTaP series](#) should be administered to children on time, with a subsequent Tdap booster according to the [recommended schedule](#), usually at **11-12 years of age**. To avoid missed opportunities to immunize, check the vaccine status of teens with the immunization registry (CAIR2) or your EMR system.
  - c. **Tdap may be substituted for Td** for adults when a 10-year booster is needed regardless of the prior history of Tdap vaccination.
  - d. **Healthcare workers** should follow the same [immunization guidance provided for all adults](#).
2. **Inquire about recent possible pertussis exposures** at school and in other community settings.
3. **Consider a diagnosis of pertussis, regardless of the patients' age and vaccination status whenever patients present with an unexplained and persistent cough**, especially when COVID and influenza tests are negative. Of note, the typical paroxysmal cough of pertussis which is characterized by spasms of severe coughing followed by a sudden, deep inspiration, often resulting in a characteristic "whooping" noise may not always be present. **Symptoms can be mild in teens and adults**, especially in those who have been vaccinated. **Very young infants** may not have a noticeable cough but may have facial color changes and may turn blue, purple or red. They may gag, gasp or stop breathing and often have leukocytosis.





- a. **PCR testing is the preferred diagnostic modality** and is widely available through local hospital laboratories. PCR testing is most sensitive during the 1<sup>st</sup> 3 weeks of cough when bacterial DNA is still present in the nasopharynx. It is NOT useful 5 or more days after the start of antimicrobial therapy.
  - b. **Serology testing is NOT recommended.**
4. **Initiate antibiotic treatment** prior to obtaining test results in patients with a clinical history suggestive of pertussis or patients with risk factors for severe complications. [Several antibiotics can be used for treatment of pertussis](#) but azithromycin is usually the preferred agent due to its efficacy, side effect profile and high completion rate.
5. **Prioritize high-risk close contacts for post-exposure prophylaxis (PEP).** These include infants less than 1 year of age, particularly infants less than 4 months of age who have not yet received any doses of DTaP, care givers and household contacts of infants (e.g. family members, friends or babysitters who spend time caring for an infant), pregnant women in their 3<sup>rd</sup> trimester, all those attending or working in a childcare setting (i.e. same room) and individuals with comorbidities, such as moderate to severe asthma or immunocompromising conditions.
6. **Report all suspected and confirmed individual cases and outbreaks to the San Mateo County Communicable Disease Control Program.** You can report by phone Monday through Friday, 8:00 am to 5:00 pm by calling 650-573-2346. You can also fax a Confidential Morbidity Report (CMR) to 650-573-2919 or report via CalREDIE.

**Resources:**

[Clinical Overview of Pertussis | Whooping Cough | CDC](#)

[Clinical Features of Pertussis | Pertussis \(Whooping Cough\) | CDC](#)

[Laboratory Testing for Pertussis | Pertussis \(Whooping Cough\) | CDC](#)

[Treatment of Pertussis | Whooping Cough | CDC](#)

[Postexposure Antimicrobial Prophylaxis | Pertussis \(Whooping Cough\) | CDC](#)

[Pertussis Vaccination Recommendations | Whooping Cough | CDC](#)





<https://www.cdc.gov/pertussis/downloads/fs-hcp-provide-prenatal-care.pdf>

<https://www.cdph.ca.gov/Programs/CID/DCDC/pages/immunization/pertussis.aspx>

[Pertussis Prevention Materials – California Vaccines for Children \(VFC\)](#)

The Communicable Disease Control Program is available to help meet the reporting needs of, and answer questions for, San Mateo County providers. To report a disease or outbreak, please call 650-573-2346, Monday through Friday, 8:00 am to 5:00 pm, or fax a Confidential Morbidity Report (CMR) to 650-573-2919. You may download an electronic copy of the CMR at [smchealth.org/cmr](http://smchealth.org/cmr). Web-based reporting via CalREDIE is also available. Please contact us if you would like to know more about, and sign up for, web-based reporting. Non-urgent questions and/or general inquiries may be directed to [SMCCDControl@smcgov.org](mailto:SMCCDControl@smcgov.org).

**Categories of urgency levels:**

Health Alert: conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: provides important information for a specific incident or situation; may not require immediate action.

Health Update: provides information regarding an incident or situation; unlikely to require immediate attention.

