

Hot Tips: Public Health Advisory

#140 Date: 04/11/2024

Please copy and distribute to ALL physicians at your location.

Potential for increase in Bordetella pertussis infections

Key Messages

- Ventura County Public Health (VCPH) would like to provide an early notice to county healthcare providers of the possibility for heightened pertussis activity this year.
- Marin County health officials have alerted the public of an increase in the incidence of pertussis cases observed within the county this year, which has been exacerbated by an ongoing outbreak associated with a school.
- Historical data suggests that we may also observe a year of heightened activity following the expected cyclical pattern associated with *Bordetella pertussis* transmission.
- Providers should be equipped to properly diagnose, treat, and immunize patients as needed.

Situation

Marin County health officials have reported a significant surge in pertussis cases identified since mid-December. As of March 22nd, the county had identified a total of 113 cases of pertussis, of which 65 cases were associated with an outbreak at a local high school. Although school vaccination rates remained high within the county through the 2021-2022 school year, waning immunity in high school students results in higher risk of infection.

Although Ventura County is not currently observing heightened activity, like Marin County, we had recorded our most recent surge in pertussis cases in 2019. Since pertussis incidence follows a cyclical pattern with increases in cases typically observed every 3-5 years, we suspect that we may note a similar surge this year. We continue to monitor local activity and encourage providers to consider pertussis while evaluating patients presenting with a prolonged cough or any other consistent signs or symptoms of illness.

Reminders

Clinical Symptoms

- Pertussis illness occurs in stages which typically present as follows:
 - *Catarrhal stage*: the first week or two of illness consisting of cold-like symptoms such as cough and coryza with gradual worsening.
 - *Paroxysmal Stage*: typically consisting of episodes of severe paroxysmal cough followed by deep inspiration which results in a characteristic “whooping” sound. Oftentimes, these episodes are followed by post-tussive vomiting as well. This stage usually lasts between 1-6 weeks but can persist as long as 10 weeks.

Protecting Health - Promoting Wellness

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Health Officer/Medical Director

- *Convalescent stage:* illness and cough may persist for several weeks and paroxysms could recur. Illness in infants may present differently with a shorter catarrhal stage, apnea, facial color changes, leukocytosis, and/or a cough which may not be as pronounced or distinctive.

Vaccination

- Infants remain at highest risk for severe or fatal outcomes following pertussis infection. Pregnant persons should receive a dose of the Tdap vaccine during each pregnancy to protect infants against pertussis. The CDC recommends administering the vaccine between 27- and 36-weeks' gestation to maximize antibody transfer to the fetus. However, Tdap can be administered anytime during the pregnancy as determined by the person's healthcare provider.
 - Although postpartum vaccination will not provide the same level of protection as vaccination during pregnancy, it can help prevent infection in the postpartum person and prevent transmission to their newborn. Postpartum persons with no prior history of receiving a Tdap vaccine should be promptly vaccinated prior to discharge home.
- Parents should be advised to ensure that any family members, caregivers, or others in contact with the infant are up to date on their Tdap vaccine as well.
- Infants should be vaccinated promptly upon eligibility in accordance with ACIP recommendations.
- All community members are also urged to stay up to date on their vaccines to prevent disease transmission.

Diagnosis & Treatment

- Initiating antibiotic treatment upon suspicion of pertussis and prior to obtaining test results is recommended, particularly in infants, pregnant persons, or those who are in close contact with vulnerable people. The earlier the treatment in the course of the infection, the more effective may be the therapy.
- Performing a diagnostic PCR test or culture from a swab is recommended over serologic testing.
- Any *suspected* cases of pertussis must be reported to VCPH accordingly.
- Ill persons should remain at home and away from vulnerable people until they have completed the prescribed course of antibiotic treatment.
- Household members and other close contacts should be prescribed antibiotic chemoprophylaxis following exposure.

Resources

For further information about pertussis, clinical guidance, and resources, please visit [Pertussis \(ca.gov\)](#).

Vaccine-specific recommendations and guidelines can be found at [ACIP DTaP Vaccine Recommendations | CDC](#).

This bulletin is intended to improve the public health in our county by keeping physicians and nurses informed of noteworthy diagnoses, disease trends, and other events of medical interest. Another goal of a public health department is to educate. We hope that you will use this information to increase your awareness. Please allow us to continue in our role of speaking to the press so that we may maximize the educational message to the benefit of all citizens of Ventura County.