

**PUBLIC HEALTH ADVISORY:  
Pertussis and Vaccination Implementation  
December 3, 2018**

SHAN 18-004 **Contact:** 707-784-8005 or 707-784-8001, [SolanoEpi@SolanoCounty.com](mailto:SolanoEpi@SolanoCounty.com)

**To: Solano County Healthcare Providers**

**From: Solano County Public Health**

Dear Providers,

Pertussis incidence in the County is on the rise. Pertussis is an acute respiratory illness caused by a gram-negative bacterium, *Bordetella pertussis*. Pertussis is highly contagious. Transmission occurs via the respiratory route though it could also occur through direct contact with respiratory secretions. Humans are the only known reservoir for pertussis. Pertussis cases can occur at any time in California, but there are cyclical increases in disease incidence with epidemics occurring every 3-5 years. During an epidemic year, peak incidence usually occurs in the summer. The last pertussis epidemic years in California were 2010 and 2014 and the next pertussis epidemic is anticipated in 2018 or 2019 (California Department of Public Health, CDPH).

Solano County has reported seven cases of pertussis in the month of November alone. While the primary focus of pertussis control is the continued promotion of prenatal Tdap vaccination to protect young infants, who are most vulnerable to severe disease and death, there is an increase in pertussis among adolescents who had only received acellular pertussis (DTaP and Tdap) since birth and one dose of Tdap vaccine prior to entering 7<sup>th</sup> grade. It is also possible that college outbreaks could be observed in the next epidemic year as the oldest members of the acellular pertussis vaccine cohort are now 20 years of age and are college-aged per CDPH.

Clinicians should be vigilant in identifying and appropriately managing suspected pertussis cases to avoid ongoing transmission and ensuring that their patients and staff are up-to-date with immunizations.

**Actions Requested of All Clinicians:**

1. **Consider pertussis** in the;
  - a. *Catarrhal Stage* with onset of cold-like symptoms (coryza, sneezing, occasional cough). Fever is absent or minimal. It may last approximately 1-2 weeks with cough gradually becoming more severe.
  - b. *Paroxysmal Stage* when spasms of severe coughing are followed by a sudden deep inspiration, often resulting in a characteristic “whooping” sound. Post-tussive vomiting is common in all ages. Illness may be milder in previously vaccinated people.
  - c. *Convalescent Stage* with decreasing frequency and severity of coughing, whooping and vomiting. Coughing paroxysms may recur with subsequent respiratory infections. Classic pertussis is 6-10 weeks in duration, but cough may last longer in some people
2. **Report suspected pertussis cases immediately to Solano County Public Health by phone at 707-784-8001 (during work hours) or at 707-784-8005 (after hours) before you send the patient home.**

3. **Test** suspected pertussis cases in consultation with Public Health. **Samples should be sent to the Napa-Solano-Yolo-Marin Public Health Laboratory.** Collecting specimens while the patient is at your facility will prevent delays in confirmation and limit the potential for additional healthcare visits/exposures.
  - Collect an aspirate or a swab of the posterior nasopharynx (NP) (for culture and PCR)
  - Specimens collected by NP swabs should be obtained using polyester, e.g. Dacron®, rayon, or nylon-flocked swab
  - Only test patients during the first 3 weeks of cough when bacterial DNA is present
  - Do not test patients who have had  $\geq 5$  days of antibiotics
4. **Vaccinate children and non-immune adults and pregnant women,** unless contraindicated, according to national guidelines.
5. **Treat and provide post-exposure prophylaxis** in accordance with the treatment guidelines

**Additional Pertussis resources:**

CDC: <https://www.cdc.gov/vaccines/parents/diseases/child/diphtheria.html>

CDPH:

<https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Immunization/PertussisQuicksheet.pdf>