



**LAC DPH Health Alert:  
Increase in Clusters of Pertussis in  
11 to 18-Year-Olds in LA County**

February 19, 2019



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*This message is intended for urgent care, primary care, pediatric, family medicine, emergency medicine, internal medicine, infectious disease, laboratory and infection control staff.*

*Please distribute as appropriate.*

### **Key Messages**

- There has been an increase in clusters of pertussis cases among 11 to 18-year-olds across Los Angeles County.
- Health care providers should consider pertussis even in vaccinated persons with minimal to mild symptoms.
- Pertussis is highly contagious. Treated cases remain communicable through the 5th day of appropriate antibiotic treatment. Patients should not be approved to return to school/work/activity until completion of at least five days of treatment.
- Providers must report all suspected cases within one working day without waiting for laboratory confirmation.

### **Situation**

Although the overall number of pertussis cases has not yet increased in LA County compared to the prior five years, the number of reported clusters of pertussis cases has risen in 11 to 18-year-olds who share classrooms, carpools/transportation, or extracurricular activities. Currently, there are three reported clusters in different areas of LA County with a median of 17 cases per cluster. Two of the clusters began at the end of 2018; there were no prior reported clusters in 2018. In 2017, there were only two similar clusters.

Because of the waning immunity from pertussis-containing vaccines and the increased exposure in facilities with multiple cases, providers should consider pertussis even in vaccinated persons with minimal to mild symptoms, especially in adolescents.

The following actions are excerpted from the LAC DPH Vaccine Preventable Disease Control Program's (VPDP) [Pertussis Fact Sheet for Clinicians](#) and the [Check List for Managing Patients Suspected of Having Pertussis](#). Please visit these for the full VPDP recommendations.

## **Actions Requested of Providers**

- Consider pertussis in any child, adolescent, or adult who presents with a persistent cough illness, especially if it is associated with coughing paroxysms or whoop. Infants with pertussis may present with difficulty breathing and/or a cough.
- Consider pertussis in any individual with a cough who presents a notification from the Department of Public Health (DPH) or gives a history indicating a possible exposure to a pertussis case or to someone who had a persistent cough.
- Obtain specimens for confirmation of the diagnosis (see “Specimen Collection and Diagnosis” section below for details).
- Treat suspect cases with an appropriate antibiotic (azithromycin, erythromycin, clarithromycin, and trimethoprim-sulfamethoxazole) without waiting for laboratory confirmation. If treatment is deferred pending test results, instruct the patient not to return to school, work, or congregate activity until confirmed negative, even if clinical suspicion is low.
- Ensure that patients complete at least 5 days of antibiotic treatment before returning to school, work, or congregate activity.
- Ascertain that household members and close contacts of pertussis cases receive antibiotic chemoprophylaxis, regardless of the contacts’ immunization status (see “Treatment and Antibiotic Chemoprophylaxis” section below).
- Ensure the patient and household contact(s) are up-to-date with pertussis vaccines (see “Preventing Pertussis: Vaccine Recommendations” below).
- Report any suspect cases in LA County within 1 working day of identification. Do NOT wait for laboratory confirmation.

## **Clinical Presentation**

Classic pertussis symptoms include persistent cough, paroxysms, inspiratory whoop, and post-tussive vomiting. **Patients with a history of vaccination, however, may not present with classic symptoms.** Adolescents may initially present with a mild illness that may be indistinguishable from other upper respiratory infections. They may have a severe or repetitive cough with mucus production and occasional paroxysms. Post-tussive vomiting or gagging can occur without a whoop.

## **Specimen Collection and Laboratory Diagnosis**

All suspected cases of pertussis should have a nasopharyngeal swab or aspirate obtained from the posterior nasopharynx for PCR or culture for *Bordetella pertussis* before starting antibiotics and within 3 weeks of cough onset (DFA tests and serological tests are not acceptable for diagnosis). PCR is preferred.

A synthetic nasopharyngeal swab should be placed into semisolid or non-liquid (Regan Lowe) transport media. Throat or anterior nares specimen collection is not appropriate for accurate pertussis identification via PCR. Refer to page 2 of the [Pertussis Fact Sheet for Clinicians](#) laboratory testing section for more details.

## **Treatment and Antibiotic Chemoprophylaxis**

All cases, their household members, and other close contacts, regardless of age and immunization status, should receive treatment or antibiotic chemoprophylaxis to reduce spread of infection within the household and the community. Treat any patients suspected of having pertussis with azithromycin, erythromycin, clarithromycin, or trimethoprim-sulfamethoxazole (dosing for antibiotic chemoprophylaxis is the same as for treatment). Treat infants under 1 month of age with azithromycin for fewer side effects. Ensure that patients receive at least 5 days of antibiotic treatment before returning to school. Refer to page 2 of the [Pertussis Fact Sheet for Clinicians](#) treatment section more details.

## **Preventing Pertussis: Vaccine Recommendations**

Vaccination of susceptible persons is the most important preventive strategy against pertussis, however, neither vaccination nor natural disease confers complete or lifelong protective immunity against pertussis or reinfection. Immunity wanes after 5--10 years from the last pertussis vaccine dose.

View the CDC [Immunization Schedules](#) for recommended pertussis vaccination schedules.

## **Reporting**

Suspect pertussis cases must be reported to the local health department by telephone within one working day (Title 17, California Code of Regulations, § 2500). Cases are reported by phone to the local Health Department based on county of residence

### **Los Angeles County DPH:**

- Weekdays 8:30 AM – 5 PM: call 888-397-3993.
- After-hours: call 213-974-1234 and ask for the physician on call.

### **Long Beach Health and Human Services:**

- Weekdays 8 AM – 5 PM: call 562-570-4302.
- After-hours: call the Duty Officer at 562-500-5537.

### **Pasadena Public Health Department:**

- Weekdays 8 AM – 5 PM (closed every other Friday): call 626-744-6089.
- After-hours: call 626-744-6043.

## **Additional Resources**

- For technical assistance, please call the LAC DPH Vaccine Preventable Disease Control Program's Surveillance Unit at 213-351-7800 and ask for the Epidemiologist on duty.
- Additional information about pertussis is also available at: [publichealth.lacounty.gov/ip/providers\\_resources.htm](http://publichealth.lacounty.gov/ip/providers_resources.htm)

The successful prevention of pertussis in LA County is due to the vaccination efforts and early identification and reporting of pertussis by LA County health care providers. Thank you for your commitment and continuing efforts to improve the health of the public.

This communication was sent by Franklin D. Pratt, MD, MPHTM, FACEP, Medical Director, Vaccine Preventable Disease Control Program, Los Angeles County Department of Public Health

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