

Date: April 6, 2017  
To: Medical Care Providers  
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Please distribute to all providers and relevant medical staff in your office.

## Health Alert

### Mumps Outbreak Confirmed in San Joaquin County

**Situation:** San Joaquin County has confirmed mumps in two students at University of the Pacific and is investigating seven additional symptomatic students. The first symptomatic person traveled to an out of state conference in mid-February and became symptomatic in early March. In late March to early April, eight more students, all close contacts of the first student, developed symptoms of parotitis, with mumps confirmed in two students by PCR of a buccal swab.

#### ACTIONS REQUESTED OF CLINICIANS:

**Think** of mumps when caring for people with parotitis, especially college students and international travelers. Consider mumps in the differential diagnosis of orchitis, meningitis, encephalitis, pancreatitis, acute onset hearing loss, and other potential presentations of the disease, regardless of the presence of parotitis. Notify Public Health immediately when mumps is suspected.

**Test** appropriate clinical specimens. For acutely ill patients who have been previously vaccinated, or who are part of an outbreak, **a buccal swab for PCR testing is preferred.**

**Treat** as needed, primarily supportive.

**Prevent** spread by isolating suspect and confirmed mumps cases and instructing them not return to school, work, or other public places until five days after the onset of parotitis. Use droplet and standard precautions when caring for suspect or confirmed cases and verify that healthcare workers likely to encounter these patients are up-to-date on immunizations or have documented immunity. Exposed healthcare providers, without presumptive evidence of immunity, will need to be excluded from work.

**Report** suspected cases before obtaining confirmatory lab results by calling the PHS Communicable Disease Program at (209) 468-3822 during business hours Monday through Friday, or (209) 468-6000 after-hours on evenings & weekends.

**Background:** There are several colleges and universities across the United States, including in California that are currently having, or have recently had, mumps outbreaks. The last confirmed mumps in San Joaquin County was in 2011.

Mumps virus is spread through infected respiratory tract secretions. It can be spread within three to six feet when an infected person coughs or sneezes, or with direct contact with infected secretions (e.g., sharing water bottles). The incubation period is typically 16 to 18 days but can range from 12 to 25 days. The disease is seasonal, with more cases noted in the late winter and early spring.

Parotitis is the most common symptom (30-65%), but non-specific symptoms such as myalgia, anorexia, malaise, headache, and low-grade fever may precede the parotitis by several days. Before vaccine was in use, 15-30% of infections were asymptomatic. Mumps is usually a mild illness, but there can be

complications. Orchitis is a common complication occurring in as many as 50% of postpubertal males and may be the only symptom of mumps.

Central nervous system (CNS) involvement is also common, but fewer than 10% have symptoms of CNS infection. Other rare complications include arthritis, mastitis, glomerulonephritis, myocarditis, endocardial fibroelastosis, thrombocytopenia, cerebellar ataxia, transverse myelitis, ascending polyradiculitis, pancreatitis, oophoritis, and hearing impairment.

People are considered infectious from two days before symptoms begin until five days after the onset of parotid swelling. Therefore, those suspected of mumps should be isolated and should refrain from public activities for five days after the onset of swelling.

Mumps vaccine is highly effective in preventing mumps. One dose is 78% effective, and two doses are 88% effective. Protection appears to be long lasting; however immunity may wane and mumps cases do occur in vaccinated individuals. Individuals with one dose of MMR should receive a second dose of MMR, and those with two doses of MMR may benefit from a third booster shot during outbreaks.

Neither mumps vaccine nor immune globulin (IG) is effective for mumps post exposure prophylaxis; during an outbreak, a third MMR booster is recommended to further protect individuals in the event of future exposure to mumps.

### **Additional Information:**

Centers for Disease Control and Prevention: <https://www.cdc.gov/mumps/index.html>.

California Department of Public Health Mumps Quicksheet:  
<http://www.cdph.ca.gov/programs/immunize/Documents/CDPHMumpsQuicksheet.pdf>.

PHS Communicable Disease Program: 468-3822.