



Disease Control and Epidemiology

Two New Mumps Cases Identified in Orange County

May 18, 2017

Two new cases of mumps have been identified in Orange County residents. Both cases are young adults in their twenties with no history of travel or contact to other cases. They had symptom onset dates of April 17 and May 6. One case was confirmed by laboratory testing, the other is a probable case based on close contact with the confirmed case and illness compatible with mumps.

Neither case has a connection with the recent cluster of mumps cases associated with Chapman University. Thirteen cases have been identified in Chapman University students, with illness onset dates ranging from January 28-April 18, 2017.

Actions Requested

- **Providers should consider the diagnosis of mumps in patients with an appropriate clinical presentation, particularly in college students and young adults, those with a history of international travel, or exposure to a known mumps case. Notify the Orange County Health Care Agency Epidemiology Program immediately at 714-834-8180 with any suspect cases.**
- **Providers are encouraged to ask patients with parotitis whether they have had contact with other cases of mumps or parotitis. Mumps should be considered in all patients with parotitis, but testing is particularly important when multiple cases of parotitis are identified in a school, family, work site, or other social group.**
- **All college students who have had fewer than two doses of MMR vaccine should receive catch up vaccination.**

Background

Symptoms

- Mumps' most characteristic symptom is parotid swelling. Parotitis is unilateral at first but eventually becomes bilateral in 70% of cases. Parotitis can initially manifest as earache and tenderness on palpation of the angle of the jaw. Symptoms generally resolve over 7-10 days.
- A nonspecific prodrome often occurs 1-2 days before the onset of parotid swelling, and can include muscle aches, loss of appetite, malaise, headache, or fever.
- Complications include orchitis (testicular swelling), which occurs in 14-35% of postpubertal males, and aseptic meningitis, which is found in 1-10% of cases.
- The incubation period ranges from 12 to 25 days.
- Treatment is supportive.



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Laboratory Testing

- The preferred method of diagnosis is mumps polymerase chain reaction (PCR) testing of a buccal swab specimen. Collection of a buccal specimen within 1 to 3 days of parotitis onset is optimal, but virus may be detected for up to 9 days after parotitis onset. The Orange County Health Care Agency Laboratory can perform mumps PCR testing.
- Testing can also include serum mumps IgM and IgG. However, the mumps IgM response may be absent in immunized patients, and patients with detectable mumps IgG can still develop infection.
- Detailed descriptions of specimen collection procedures can be found at:
https://archive.cdph.ca.gov/programs/vrdl/Documents/Mumps_Testing_VRDL_Quicksheet.pdf

Infection Control

- Mumps virus is transmitted by direct exposure to respiratory secretions of infected persons.
- Infectiousness is highest from 2 days before until 5 days after onset of parotitis. **Persons with mumps should stay home from work, school and other activities until at least 5 days after the onset.**
- Healthcare providers should use droplet and standard precautions when caring for suspect or confirmed cases.
- Healthcare workers should have two documented MMR doses or documented immunity.

Vaccination

- Mumps vaccine is given as part of the Measles, Mumps and Rubella (MMR) vaccine.
- All children are recommended to receive a first MMR at 12-15 months and a second MMR at 4-6 years of age.
- All adults without evidence of immunity to measles, mumps, and rubella should have at least one dose of MMR. Certain high risk groups should have two MMR doses, including healthcare professionals, international travelers and students at post-high school educational institutions.
- The CDC estimates an effectiveness of two doses of MMR for preventing mumps of 88%.
- Vaccination does not provide post-exposure prophylaxis for mumps, but should prevent illness after future exposures.
- Breakthrough infection can occur despite vaccination, and most cases seen in college outbreaks have occurred in fully vaccinated patients. However, high vaccination coverage can help to limit the spread, duration, and magnitude of mumps outbreaks.

Contact Information

If you have any questions or concerns please contact the **Epidemiology and Assessment Program at 714-834-8180**. For more information go to: <http://www.ochealthinfo.com/phs/about/dcepi/epi>