

Increase in Mumps Cases in Orange County

September 5, 2019

Since the beginning of June, nine cases of mumps have been identified in Orange County residents. Eight of nine cases were in adults with ages ranging from 19-41 years, one case was diagnosed in a 10 year old child. Five (56%) of the nine cases reported no history of international travel or contact with a known case, indicating local spread of mumps virus. Seven (78%) of the nine reported being immunized against mumps.

Recommendations:

- **Consider the diagnosis of mumps in patients with an appropriate clinical presentation, even in patients who have been fully vaccinated. Mumps testing is particularly indicated when parotitis is seen in these high risk groups and settings:**
 - Students at post-high school educational institutions
 - International travelers
 - Multiple cases of parotitis are identified in a family or other social group
- **Assure that all children receive two doses of measles, mumps, and rubella (MMR) vaccine.**
- **Adults who are increased risk of mumps exposure (including healthcare workers, international travelers, and students at post-high school educational institutions) should also receive two MMR doses.**
- **Notify the Orange County Public Health immediately at 714-834-8180 with any suspect mumps cases.**

Symptoms:

- Mumps' incubation period ranges from 12 to 25 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.
- Mumps' most characteristic symptom is parotid swelling. Parotitis is generally 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.
- Complications include orchitis (testicular swelling), which occurs in 14-35% of postpubertal males, and aseptic meningitis, which is found in 1-10% of cases.
- Treatment is supportive.

Diagnosis:

- 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 parotid gland area (the space between the cheek and the teeth just below the ear) should be massaged for about 30 seconds prior to obtaining the

specimen. The Orange County Health Care Agency Laboratory can assist with performing 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 on the [California Department of Public Health website](#).

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 symptom 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 mumps 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 dose 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 MMR doses 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, immunized persons are 11-fold less likely to develop infection compared with non-immunized persons, and high vaccination coverage can help to limit the spread, duration, and magnitude of mumps outbreaks.

Contact Information:

For questions or concerns please contact the **Communicable Disease Control Division at 714-834-8180**.