



**City of Long Beach
Department of Health and Human Services**



Epidemiology and Communicable Disease Control

March 9, 2018

**HEALTH ADVISORY
Mumps Outbreak Associated with Cheerleading Competitions**

Key messages

- Long Beach residents who attended cheerleading competitions in Dallas, Texas from February 23-25, 2018 may have been exposed to mumps
- Providers should consider the diagnosis of mumps among patients presenting with parotitis, other salivary gland swelling, and/or orchitis even if patients have been vaccinated, especially if they traveled to this cheerleading competition
- The incubation period for any new cases will end March 22, 2018

Situation

Mumps is highly infectious and spreads through congregate living/social settings and has caused recent outbreaks in Los Angeles County.

A case of mumps was identified in a student who was at the cheerleading competition from February 23-25, 2018 where students, staff, and parents from several schools in LA County and surrounding areas attended.

This advisory is to increase awareness of the illness and ensure a complete travel history is part of the evaluation for anyone who has mumps-like illness. Many mumps cases can be misdiagnosed, most commonly as salivary duct stones and lymphadenopathy. Do not rely only on IgM results, as false positives are common. Collect swab and urine as well for PCR testing.

Actions requested of providers

- Consider mumps when evaluating any patient who has acute orchitis, parotitis, or other salivary gland swelling
- Obtain detailed travel history with specific emphasis on Dallas, Texas from February 23-25, 2018
- Obtain specimens for confirmation of diagnosis: buccal swab for PCR ideally within three days but no greater than nine days after symptom onset and blood for serology (IgM and IgG) four or more days after symptom onset. Keep in mind that in vaccinated individuals the IgM may remain negative
- PROMPTLY report suspect cases without waiting for laboratory confirmation to the Long Beach Health Department
- Consult the Epidemiology/Communicable Disease Program with any questions about potential mumps cases

- Ensure that all clinic staff who have contact with patients have immunity to mumps (two documented doses of MMR or serologic evidence of immunity)
- Consider an extra dose of MMR vaccine for patients at risk

Clinical Presentation

Unvaccinated individuals are at highest risk for infection, though mumps should also be suspected among vaccinated individuals. Mumps incubation period ranges from 12-25 days, but symptoms typically develop 16 to 18 days after exposure to mumps virus.

Mumps typically begins with a few days of fever, headache, myalgia, fatigue, and anorexia followed by development of salivary gland swelling, pain, and tenderness. Mumps usually involves one or both parotid salivary glands but in 10% of cases other salivary glands (submandibular and sublingual) are symptomatic. In vaccinated patients, symptoms may be non-specific.

Orchitis is the most common complication and can occur without prior presentation of parotitis/salivary gland swelling. Clinicians should inquire about scrotal or testicular pain in men with fever and other non-specific symptoms.

Other complications of mumps may include oophoritis and neurologic manifestations (including meningitis, encephalitis, and deafness).

Specimen Collection, Transport, and Testing at the Long Beach Public Health Laboratory

Specimens will not be processed until the suspect case has been reported to Public Health [see reporting details below]. Providers are responsible for their own courier service. Please transport all approved specimens to:

Long Beach Public Health Laboratory
2525 Grand Avenue, Room 260
Long Beach, CA 90815

Specimens for Mumps Testing (**Note:** All specimens must be stored at 4°C after collection and shipped on cold pack within 24-72 hours):

- Buccal swab: A reverse-transcriptase polymerase chain reaction (PCR) test of the parotid duct (buccal swab) is the preferred method of confirming acute mumps infection. Optimal timing for specimen collection is within three days of symptom onset but specimens may be collected up to nine days. Massage the salivary gland area for about 30 seconds and use a viral culturette/synthetic swab to swab around the parotid duct. Place the swab in 2-3 mls of liquid viral or universal transport media.
- Serum: Four or more days after symptom onset, test blood for mumps IgM and IgG antibodies as *earlier tests may be falsely negative. Serum IgM may be absent or attenuated in previously vaccinated individuals.* Draw 8-10 mL of blood in a red top or serum separator tube; spin down serum if possible.
- Urine: In addition, submit a urine specimen in a sterile container for supplemental mumps testing.

For additional questions on specimen collection, transport, and testing, please call the Long Beach Public Health Laboratory at (562) 570-4080, Monday-Friday, 8am to 5pm.

The turnaround time for results can be up to 7-10 business days after receipt of specimens at the Public Health Laboratory.

Transmission and Infection Control

Mumps is highly infectious and is transmitted by contact with airborne respiratory secretions or saliva or through fomites. Typically, mumps patients are contagious from two days before through five days after onset of parotitis. Suspected mumps cases should wear a mask and sit apart from other patients (3-6 feet). Patients should be told to stay at home and avoid public spaces for five days after the onset of parotid swelling, or, if they do not have parotid swelling, until constitutional symptoms have resolved.

Prevention

Routine vaccination with two doses of mumps-containing vaccine is the most effective way to prevent disease. It is routinely recommended for all children and is a requirement for school attendance. Adults without proof of immunity should receive a two shot series. An extra dose of MMR vaccine in those previously vaccinated may limit the duration and size of mumps outbreaks and may be considered for those who traveled to Dallas for the cheerleading competition.

Management of exposed individuals: The Long Beach Epidemiology Program will assist in the management of all suspect cases and their contacts. The management of contacts will be based on their exposure, vaccination, and immune status. In general, if not contraindicated, management may include an extra dose of MMR vaccine, as noted above. Immune globulin is not indicated for mumps post-exposure prophylaxis.

Reporting

Do not wait for laboratory confirmation to report. Suspect mumps cases should be reported by telephone promptly to the Long Beach Department of Health and Human Services at 562.570.4302 or after hours at 562.435.6711 and ask for the Communicable Disease Officer.

For more information and technical assistance, contact the LBDHHS Epidemiology Program at 562-570-4302 or LBEpi@longbeach.gov.