



**LAC DPH Health Advisory:
Potential Mumps Exposure from National
Cheerleading Competition in Texas**



March 9, 2018

*This message is intended for primary care, urgent care, emergency medicine,
internal medicine, and infectious disease providers.
Please distribute as appropriate.*

Key Messages

- LA County residents were possibly exposed to mumps at a cheerleading competition held in Dallas, Texas from February 23-25, 2018.
- 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 those who attended the competition will end March 22, 2018.
- Providers should ensure that patients have completed the two-dose series of mumps-measles-rubella (MMR) vaccinations. Consider an extra dose of MMR vaccine for patients at risk of possible exposure.

Situation

Mumps is highly infectious and spreads through congregate living/social settings and has caused recent outbreaks in the United States.

Students, staff, and parents from 28 schools in LA County and surrounding areas traveled to Dallas, Texas for a cheerleading competition from February 23-25, 2018. One case of mumps was identified in a student (not from LA County) who was at the competition. Currently, no additional cases in Texas or elsewhere have been identified.

This communication is to increase awareness of the illness and ensure a complete travel history is part of the evaluation of anyone who has a mumps-like illness. Many recent LA County mumps cases have been initially misdiagnosed, most commonly as salivary duct stones and lymphadenopathy. Do not rely on negative IgM results, as false negatives are possible. Swab and/or urine specimens may be necessary to improve diagnostic accuracy [see below].

Actions requested of providers

- Consider mumps when evaluating any patient who has parotitis, or other salivary gland swelling, or orchitis [see clinical presentation below].
- Obtain detailed travel history with specific emphasis on Dallas, TX from February 23-25, 2018.

- Inquire about possible exposure to mumps in patients presenting with fever, malaise, headache, anorexia, myalgia or non-specific respiratory symptoms.
- 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 [for more information, see specimen collection below].
- Inform suspect mumps patients that they should remain home and away from public spaces such as school and work for five days after parotitis onset or, in its absence, until the resolution of constitutional symptoms.
- PROMPTLY report suspect cases without waiting for laboratory confirmation [see reporting section below].
- Consult DPH Vaccine Preventable Disease Control Program with any questions about a potential mumps case [see resources section below].
- 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 and Testing at Public Health Laboratory

The Public Health Laboratory will transport and process all mumps specimens. Note: specimens will not be processed until the suspect case has been reported to Public Health [see reporting details below].

Specimens for Mumps Testing:

- 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.

Call the Public Health Laboratory courier to arrange for specimen pick-up weekdays 8:00am – 5:00pm: 562-658-1460. All specimens should be stored at 4°C until pick-up.

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. A major factor contributing to outbreaks of mumps is being in a crowded environment. Also, certain behaviors that result in exchanging saliva, such as kissing or sharing utensils, cups, lipstick or cigarettes, may increase the spread of the virus.

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: DPH 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

Mumps suspect cases should be reported by telephone promptly to the local health

department. Do not wait for laboratory confirmation.

Los Angeles County DPH:

- Weekdays: 888-397-3993
- After 5 pm or on weekends: 213-974-1234.

Long Beach Health and Human Services:

- Weekdays: 8:00 am to 5:00 pm: 562-570-4302.
- After hours: 562-435-6711 ask for the Communicable Disease Officer.

Pasadena Health Department:

- Weekdays: 8:00 am to 5:00 pm: 626-744-6089, closed every other Friday
- After hours: 626-744-6043.

Additional Resources

- Technical or clinical assistance-contact LAC DPH Vaccine Preventable Disease Control Program's Surveillance Unit:
 - Weekdays: 8:00 am to 5:00 pm call: 213-351-7800.
 - After hours call: 213-974-1234.
- Mumps for Community Members (LAC DPH)
http://publichealth.lacounty.gov/ip/VPD_mumps.htm
- Mumps for Healthcare Providers
 - (LAC DPH) *Rx for Prevention* article: 'Recognizing and Managing Mumps in Adults' <http://rx.ph.lacounty.gov/RxMumps0917>
 - (CDC): <https://www.cdc.gov/mumps/hcp.html>
- Mumps Outbreak Updates (CDC): <https://www.cdc.gov/mumps/outbreaks.html>

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