



**LAC DPH Health Alert:  
Mumps Outbreak in Adults in  
Los Angeles County**

June 1, 2017



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

### **Key Messages**

- There are a number of mumps outbreaks occurring in the U.S., including one in LA County, which is predominately among men who have sex with men (MSM).
- 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.
- Ensure patients have completed the two dose series of measles-mumps-rubella (MMR) vaccinations.

### **Situation**

Mumps is highly infectious and spreads through congregate living/social settings causing sporadic outbreaks as has been demonstrated in recent outbreaks in the U.S.

In LA County and surrounding areas, there is currently a mumps outbreak involving over 40 patients. The majority of these cases are among MSM but some are women and heterosexual men with social connections to MSM cases. Most transmissions appear to have occurred at large venues such as athletic clubs, bars, theaters and nightclubs. The majority of cases have had no documentation of complete vaccination; however, some cases were fully vaccinated.

Many of the LA County mumps cases were initially misdiagnosed, most commonly as salivary duct stones and lymphadenopathy. In addition, some misdiagnoses occurred because of reliance on false negative IgM results.

Some guidance below has been updated since the March 9, 2017 Health Alert "Mumps Clusters in Adults in Los Angeles County". Any significant new text or recommendations are denoted in [blue](#).

### **Actions requested of providers**

- Consider mumps when evaluating any patient who has acute orchitis, parotitis, or other salivary gland swelling [see clinical presentation below].
- [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 [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 Immunization 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 \(two documented doses of MMR or serologic evidence of immunity\).](#)

### **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. **There is conjecture that an extra dose of MMR vaccine in those previously vaccinated may limit the duration and size of mumps outbreaks and may be considered for high risk individuals during this outbreak.**

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.
- After hours: 626-744-6043.

### **Additional Resources**

- Technical or clinical assistance-contact LAC DPH Immunization 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/DiseaseSpecific/Mumps.htm>
- Mumps for Healthcare Providers (CDC): <https://www.cdc.gov/mumps/hcp.html>
- Mumps Outbreak Updates (CDC): <https://www.cdc.gov/mumps/outbreaks.html>
- Mumps Factsheet (CDPH):  
<https://www.cdph.ca.gov/HealthInfo/discond/Pages/Mumps.aspx>

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