



Health Alert



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Chicago Health Alert Network

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Increase in Chicago mumps activity: updated guidance

SUMMARY AND ACTION ITEMS

- Due to a recent increase in mumps activity in Chicago, the Chicago Department of Public Health (CDPH) is releasing updated guidance on mumps prevention, evaluation, and counseling.
- When seeing patients with symptoms consistent with mumps, please collect 2 parotid gland duct swabs and urine:
 - Send one swab for mumps RT-PCR to a commercial laboratory
 - Save one swab and urine at 4°C to ship for additional testing after CDPH consultation
- Ensure patients and healthcare workers are up to date on MMR vaccine, adults who do not have evidence of immunity should get one dose of MMR vaccine now and providers can consider a 3rd dose of MMR vaccine for HIV positive patients with CD4+ counts ≥ 200 cells/ μ L.

Background:

Since January 2018, Chicago Department of Public Health (CDPH) has received reports of 26 confirmed or probable mumps cases compared to 31 total in 2017. Sixty percent of adult cases are men who have sex with men (MSM) and 50% of MSM cases are HIV positive but common exposure settings and additional risk factors remain unclear. Mumps is a viral illness transmitted by respiratory droplets and saliva. Incubation period ranges from 12-25 days. Symptoms include fever, headache, muscle aches, tiredness, loss of appetite, and swollen and tender salivary glands under the ears on one or both sides (parotitis). Infected individuals are typically contagious two days prior to parotitis onset until five days after. The most common complication in the post-vaccine era is orchitis. Mumps RT-PCR by buccal swab (offered by commercial labs) is optimal for diagnosis. Two doses of MMR vaccine do not provide 100% protection against mumps; one dose is about 78% effective and two doses are about 88% effective. There is some limited evidence in college students amid a large outbreak that a 3rd dose of MMR vaccine may decrease the risk of becoming infected with mumps for a short time frame¹ and in January 2018, the Advisory Committee on Immunization Practices (ACIP) formally recommended a 3rd dose of MMR for certain high risk patients in mumps outbreak settings². Given our current surveillance data, CDPH makes the following recommendations:

Updated Mumps Vaccination and Testing guidance:

- **Vaccination recommendations:**
 - Ensure your patients and all healthcare workers have evidence of immunity to mumps.
 - Written documentation of two doses of live mumps or MMR vaccine administered at least 28 days apart, lab evidence of immunity/confirmation of disease and birth before 1957 represent immunity.³
 - Adults who do not have evidence of immunity should get one dose of MMR vaccine now.
 - Though not currently amid an outbreak, due to known existing close social networks in our recent mumps cases, we are asking health care providers to consider offering a 3rd dose to HIV positive patients with CD4+ counts ≥ 200 cells/ μ L.³
- **Laboratory testing:** see [Chicago Health Alert dated 3/16/18](#) for additional mumps specimen collection instructions.
 - If mumps is suspected, collect 2 parotid gland duct swabs and a urine sample and consider influenza testing.
 - Send one swab for mumps RT-PCR to a commercial laboratory for diagnosis.
 - Save one swab and urine at 4°C and call Erika Davis at (312)746-9867 for consultation about shipping.
- **Infection control and patient counseling:**
 - Consider masking patients in the waiting room if they endorse or screen positive for cheek/jaw swelling.
 - If mumps is suspected, provide surgical masks to the patient while awaiting laboratory results and counsel patients to wear the mask around others (including around family members) and avoid congregate settings for 5 days from the onset of parotitis.

Additional resources: For additional questions and consultation, please call CDPH VPD program at (312)746-5911 or (312)746-5382.

¹Cardemil et al. [Effectiveness of a Third Dose of MMR Vaccine for Mumps Outbreak Control](#). N Engl J Med 2017; 377:947-956.

²Marin et al. Recommendation of the Advisory Committee on Immunization Practices for Use of a Third Dose of Mumps Virus-Containing Vaccine in Persons at Increased Risk for Mumps During an Outbreak. MMWR Morb Mortal Wkly Rep 2018;67:33-38. DOI: <http://dx.doi.org/10.15585/mmwr.mm6701a7>

³2018 ACIP Adult Immunization Schedule: <https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf>