



Indiana State Department of Health

Indiana Health Alert Network Advisory — February 21, 2019

CONFIRMED MUMPS CASES AT INDIANA UNIVERSITY – BLOOMINGTON

The Monroe County Health Department, Indiana University – Bloomington, and the Indiana State Department of Health (ISDH) are investigating two confirmed cases of mumps in university students.

Mumps is a viral infection spread through respiratory droplets. Initial symptoms are often non-specific and include myalgia, malaise, headache, loss of appetite, low-grade fever, and parotitis (swelling of the salivary gland below the ear). Symptoms typically last two or more days. Parotitis may be unilateral or bilateral. Complications of mumps are relatively uncommon, but can include orchitis, oophoritis, encephalitis, pancreatitis, and transient deafness. Patients infected with mumps are considered most infectious between approximately two days before and five days after the onset of parotitis and should be instructed to self-isolate during this time. The incubation period of mumps is 12-25 days after exposure, with an average of 16-18 days to parotitis onset. Altered clinical presentations may occur in fully vaccinated persons, and approximately one-third of all mumps cases are asymptomatic or experience no parotitis.

Health care providers are strongly encouraged to collect a buccal swab **within five days of parotitis onset on any individual (vaccinated or not) presenting with parotitis for testing at the ISDH Laboratories.** Polymerase chain reaction (PCR) or culture from a buccal swab are the most reliable methods to test for mumps, however, acute mumps infection can also be confirmed by the presence of serum mumps IgM and a significant rise in IgG antibody titer in acute- and convalescent-phase serum specimens. Appropriate laboratory specimens are essential for the confirmation of mumps virus, as a number of other etiologies can cause swollen salivary glands.

Additional guidance on lab testing is outlined below:

- **Mumps specimen collection and submission guidelines for virology (PCR) testing at ISDH Laboratories can be found [here](#). Specimen approval **is required** prior to submission for mumps testing at ISDH Laboratories.** Please contact the ISDH Epidemiology Resource Center at 317-233-7125 for testing information, approval, and additional submission guidance.
- Results for specimens that have not been approved prior to submission to ISDH Laboratories may be significantly delayed. Results will be released to the submitting laboratory. If a specimen was submitted through an intermediary reference laboratory, providers are encouraged to check with those entities for results before contacting ISDH.
- Serology (IgG and IgM) should be requested through a reference laboratory and no authorization is necessary. PCR and culture testing are also available commercially, however, turnaround times may be longer than for an authorized specimen to be sent to ISDH Laboratories.
- A flowchart on which type of testing is most appropriate for a patient and when to send to ISDH Laboratories is available [here](#).

The recommendation for immunization is two doses of measles, mumps, and rubella (MMR) vaccine to protect against mumps. Children and adults who are not immunized or are not up-to-date with immunization should receive MMR vaccine. It is recommended that children ages 12 months through 4 years have one dose of MMR vaccine with a second dose given between 4 and 6 years of age. Two doses of MMR vaccine are considered about 88% effective (range 66%-95%) in preventing mumps infection, however, fully vaccinated persons may still contract the disease.

Health care providers are encouraged to be vigilant for clinical symptoms **compatible with mumps** despite vaccination status. Providers are also encouraged to ask about recent domestic or international travel or exposure history for patients suspected of mumps. Additional doses for those who have two doses on record are not recommended at this time.

For more information or to report a suspect case, please contact Payton Revolt, ISDH Vaccine-Preventable Disease Epidemiologist, at prevolt@isdh.in.gov or at 317-233-7277 or Ali Bianco, Vaccine-Preventable Disease Public Health Investigator, at abianco@isdh.in.gov or at 317-233-7112.

To report a suspect case or specimen authorization after business hours (8:15 a.m. – 4:45 p.m. M-F), please contact the ISDH epidemiologist-on-call at 317-233-1325.

Call the ISDH Laboratories at 317-921-5858 for assistance with submitting specimen for testing after receiving authorization.

More information on mumps can be found at <https://www.in.gov/isdh/25450.htm>.