



Nebraska Department of Health and Human Services

HEALTH ALERT NETWORK

Advisory



TO: Primary Care Providers, Emergency Department, Laboratory, Public Health

RE: **Mumps Outbreak**

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Mumps Cases Ten cases of mumps have been identified amongst vaccinated Midland University students in Fremont, Nebraska. The first case reported symptom onset on 4/16 and the most recent case reported symptom onset on 5/13. The Three Rivers Public Health Department and the Nebraska Department of Health and Human Services (NDHHS) are working together to investigate these cases. There is potential for this outbreak to spread to other jurisdictions as these students return home for the summer.

Presentation Mumps is an acute viral illness caused by a paramyxovirus. The classic symptom of mumps is parotitis (i.e., acute onset of unilateral or bilateral tender, self-limited swelling of the parotid or other salivary gland(s)), lasting at least two days, but may persist longer than ten days. Incubation period ranges from 12–25 days, but parotitis typically develops 16 to 18 days after exposure to mumps virus. Nonspecific prodromal symptoms may precede parotitis by several days, including low-grade fever which may last three to four days, myalgia, anorexia, malaise, and headache. However, mumps infection may present only with nonspecific or primarily respiratory symptoms or may be a subclinical infection. Although rare, aseptic meningitis and encephalitis can occur with a case-fatality rate of 1%.

Diagnosis Mumps can be diagnosed based on serology or PCR for mumps virus. Confirmatory diagnosis can be made using PCR for mumps virus which should be obtained within 3 days of symptoms onset using a viral swab (**not cotton**) and transported in accordance with Nebraska Public Health Laboratory guidelines. Serology for IgM and IgG levels can be useful but is often difficult to interpret depending on immunization status and time of lab draw from onset of symptoms.

Transmission The virus can be transmitted by contact with respiratory droplets and nasopharyngeal secretions. Individuals are considered most contagious during the 3 days before and 5 days after onset of symptoms.

Background	The mumps component of the MMR vaccine does not confer life-long immunity. The ten cases involved in this outbreak received two doses of MMR vaccine on schedule. Mumps antibody titers drop over time leaving individuals susceptible should they be exposed to mumps virus. A third dose is not routinely advised but has been administered during larger outbreaks, as seen recently in Iowa and Indiana. At this point, aggressive isolation is recommended for symptomatic persons for 5 days after symptom onset. In addition, any person older than 4 years of age without 2 doses of the MMR vaccine should receive the appropriate catch-up dose.
Special Populations	Infections can occur among persons of all ages. Individuals who previously had mumps are considered immune to the virus. However, those who have been vaccinated for mumps—though much less likely to contract the virus—can still be infected. Immunocompromised individuals and pregnant woman are at increased risk of complications.
Treatment	There is no specific treatment for mumps virus except for supportive care of pain and fever as needed. Vaccination status should be confirmed in accordance with the ACIP-recommended schedule which includes a two-dose regimen of MMR at around age 1 and 6 years.

Additional information on Mumps is available at: <http://www.cdc.gov/mumps/>

Evidence of reduced immunity over time <https://www.ncbi.nlm.nih.gov/pubmed/?term=safrahek+mumps>

Nebraska Public Health Laboratory: <http://nphl.org/testdirectory.cfm>

To report cases or if you have any additional questions or concerns, please contact:

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