Nebraska Department of Health and Human Services

HEALTH ALERT NETWORK Advisory

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TO: Primary Care Providers, Emergency Departments, Laboratories, Public Health

RE: **Recent Mumps Outbreaks in Nebraska**

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Mumps Cases

There has been a significant increase in the number of mumps cases in Nebraska related to 2 ongoing outbreaks. At least 30 cases have been identified recently occurring mainly among attendees of a wedding in the Northeast Nebraska Public Health Department jurisdiction (Cedar, Dixon, Thurston, and Wayne counties) and a work place in the Four Corners Health Department jurisdiction (Butler, Polk, York, and Seward counties). The Nebraska Department of Health and Human Services (NDHHS) and local health department partners are investigating reported cases and their contacts in Nebraska and urge you to report any suspected cases. This outbreak is ongoing with potential for further spread.

Diagnosis

If you suspect a patient may have mumps, please contact your local health department (http://dhhs.ne.gov/CHPM%20Maps/LHD-EPISurvelliance.pdf) or NDHHS at (402) 471-6450 to report the case and determine appropriate testing and isolation recommendations. Testing can be routed through commercial reference laboratories or the Nebraska Public Health Lab (NPHL) if preapproved by your health department. PCR testing of buccal swab/saliva is recommended over serology within the first 5 days of symptom onset. However, IgM serology testing should also be considered, especially after 3 days of symptom onset when the viral load begins to wane and may be less detectable by PCR.

Presentation

The classic mumps symptom is parotitis (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. Nonspecific prodromal symptoms may precede parotitis by several days, including low-grade fever, headache, muscles aches, tiredness, or loss of appetite. However, mumps infection may present 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%. Vaccinated cases are less likely to experience severe symptoms compared to under-vaccinated cases.

Treatment

There is no specific treatment for mumps except for supportive care of pain and fever as needed. **At this point, the most important precautions are reporting suspected cases and aggressive isolation for at least 5 days after symptom onset (or until parotitis is no longer present)**.

	Vaccination status should also be assessed in accordance with the ACIP-recommended schedule which includes a two-dose regimen of MMR at around age 1 and 4-6 years.
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. Symptomatic individuals should be advised to avoid contact with others from the time of symptom onset until 5 days after the onset of parotitis (or until parotitis is completely gone) by staying home from work or school and staying in a separate room if possible.
Background	MMR vaccination does not provide life-long immunity: some of the patients involved in this outbreak were appropriately vaccinated. However, mumps-containing vaccines (e.g. MMR) are the best line of defense and everyone should be brought up to date with the age appropriate recommendations. A second dose of the MMR vaccine can be considered for children aged 1–4 years old who are at increased risk of exposure (with at least 4 weeks separating first and second doses). For persons who public health authorities determine are at increased risk of acquiring mumps during an outbreak, a pre-exposure third dose of MMR vaccine can be considered on a case by case basis. One dose of a mumps-containing vaccine (e.g., MMR) confers immunity in approximately 78% of recipients, while the recommended two doses increase that to 88%. Public health recommendations are for all persons to have two doses of a mumps-containing vaccine. Individuals are encouraged to check their vaccination records to ascertain whether they have documented receipt of two doses of a mumps-containing vaccine, and if not, to seek vaccination. There is little evidence to suggest that receipt of a mumps-containing vaccine following exposure reduces the chance of developing mumps, and there are no recommendations to use mumps vaccine as post-exposure prophylaxis.
Special Populations	Mumps infections occur among persons of all ages. Individuals who previously had mumps are considered immune to the virus. However, those who have been vaccinated—though much less likely to contract the virus—can still be infected. Immunocompromised individuals and pregnant woman are at increased risk of complications.

Additional information on Mumps can be found at: http://www.cdc.gov/mumps/

Additional information on Mumps testing can be found at: https://www.cdc.gov/mumps/lab/qa-lab-test-infect.html

To report cases or if you have any additional questions or concerns, please contact your local health department (http://dhhs.ne.gov/CHPM%20Maps/LHD-EPISurvelliance.pdf**) or NDHHS:**

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