



Buncombe County Health and Human Services

Aging and Veteran's Services ~ Social Work Services
Public Assistance & Work Support Strategies ~ Public Health
Amanda Stone, MSW
Health and Human Services Director

To: Buncombe County Medical Providers
From: Dr. Jennifer Mullendore, Medical Director
Date: April 12, 2017
RE: Health Alert from Buncombe County Department of Health- Mumps

A student at Appalachian State was recently diagnosed with mumps. At this time, no additional cases of mumps have been identified in NC that are connected with this case. However, numerous outbreaks of mumps are occurring throughout the US, and it appears that recent Spring Break travel (e.g., to South Padre Island, Texas) may be contributing to some spread of the illness. If you should see a patient with signs and symptoms compatible with mumps, **please assess their travel history and report that suspected mumps case to your local health department immediately.** For Buncombe County, contact Disease Control staff at 828-250-5109 (available 24/7).

Clinical features of mumps

- **Pain, tenderness, and swelling in one or both parotid salivary glands (cheek and jaw area) that lasts at least 2 days**, but may persist longer than 10 days
 - Swelling is first seen in front of the lower part of the ear, and then extends inferiorly and anteriorly.
 - Swelling usually peaks in 1-3 days and then subsides over the next week.
 - Often the angle of the jawbone cannot be seen and the jawbone cannot be felt because of the swelling of the parotid.
 - Submandibular and sublingual salivary glands also may swell (10% of cases).
 - For a photo of mumps in a child, see <http://phil.cdc.gov/phil/details.asp?pid=130>
- **How do you differentiate parotitis from lymph node swelling?**
 - Parotitis can cause ear protrusion or obscuring of the angle of the jaw; lymph node swelling will not.
 - Lymph nodes will have well-defined borders and be located behind the angle of the jaw.
- **Nonspecific prodromal symptoms may precede parotitis by several days, including low-grade fever, myalgia, anorexia, malaise, and headache.**
- Mumps infection may present only with nonspecific or primarily respiratory symptoms, or may be asymptomatic.
- Most people recover completely in a few weeks.

How is mumps spread?

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- Through direct contact with respiratory secretions or saliva or through fomites
- Average incubation period for mumps is 16 to 18 days, with a range of 12– 25 days
- People with mumps are considered most infectious from two days before through five days after the onset of parotitis.

Diagnosis of mumps

- Sporadic parotitis in the US is uncommonly caused by mumps; more common causes include infections with other viruses (e.g. Epstein-Barr virus) or bacteria (e.g. Staphylococcus or Streptococcus species).
- Factors that should increase suspicion for mumps: international travel during the 25 days before parotitis onset; lack of prior vaccination with MMR vaccine; contact with other persons with similar symptoms; during outbreaks and periods of increased mumps virus circulation.
- **Preferred mumps tests = RT-PCR and viral culture performed on a swab of the mouth near the affected gland, collected no later than 8 days after beginning of parotitis/swelling**
- **Failure to detect mumps by laboratory testing does NOT rule out mumps as a diagnosis.**
 - The likelihood of detecting mumps is dependent on the timing of collection and quality of the clinical sample.

Management of mumps

- **Persons suspected or confirmed to have mumps should avoid contact with others from the time of diagnosis until at least 5 days after the onset of parotitis** by staying home from work or school and staying in a separate room if possible.
- No specific treatment is available.

Prevention

- Vaccination is the best way to prevent mumps, so **MMR vaccine should be administered (as age-appropriate) to persons without evidence of immunity.**
 - Two doses of MMR vaccine are ~88% effective at preventing the disease; one dose is ~78% effective.
 - Those born before or during 1957 are considered immune based on likely exposure during childhood.
 - Mumps can occur in vaccinated people.
 - During mumps outbreaks in highly vaccinated communities, the proportion of cases that occur among people who have been vaccinated may be high.
 - However people who have not been vaccinated against mumps usually have a much greater attack rate than those who have been fully vaccinated.
- **Ensure that all healthcare personnel in your office have presumptive evidence of immunity.**

- Healthcare personnel who lack evidence of immunity and have had unprotected exposures to mumps (i.e., being within three feet of a patient with a diagnosis of mumps without the use of proper personal protective equipment) will face exclusion from work from the 12th day after the first unprotected exposure through the 25th day after the last exposure.
- **Presumptive evidence of immunity for healthcare personnel is defined as:**
 - **Written documentation of vaccination with two doses of MMR vaccine administered at least 28 days apart;**
 - **Laboratory evidence of immunity;**
 - **Laboratory confirmation of disease; or**
 - **Birth before 1957.**

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