Mumps Outbreak in Washington
Confirmed and Probable Mumps Cases Identified in Grant County

GRANT COUNTY, WA – Grant County Health Officer, Dr. Alexander Brzezny, issues an alert to inform all healthcare providers of a confirmed and probable mumps cases in Grant County. GCHD is asking healthcare providers to be vigilant for other possible mumps cases in the community, test those suspected for mumps using correct and approved approaches (PCR buccal swab, urine test), and provide proper isolation and exclusion information to suspect cases.

With the confirmation of mumps virus in Grant County, the health district is advising individuals to check their children’s and their own vaccination status and verify that they are up-to-date with the measles-mumps-rubella (MMR) vaccine series (minimum two MMR required in those 4 years old and older born after 1957).

Grant County Mumps Case Investigation
The patient with confirmed mumps is a student at Columbia Basin Job Corp (CBJC) has a history of travel to a county with prior cases of mumps within Washington. In addition, there are two probable mumps cases, with clinical symptoms that are linked to the confirmed case (probable cases). GCHD staff are working with CBJC, located near Moses Lake, to evaluate vaccination histories for students and staff, vaccinate students and staff who are under-vaccinated and monitor infection control. Generally, students and staff who do not have proof of two MMRs (measles/mumps/rubella) or other accepted written proof of immunity (discussed below) will be excluded from school and/or activities, unless they agree to vaccinate.

Case Definitions
Clinical definition: Acute parotitis or other salivary gland swelling lasting at least 2 days, or orchitis (testicular swelling) or oophoritis (swelling of ovary) unexplained by another more likely diagnosis.

Incubation period: Usually 16-18 days after exposure (range 12-25 days).

Suspected: Parotitis, acute salivary gland swelling, orchitis, or oophoritis unexplained by another more likely diagnosis, OR positive lab result with no mumps clinical symptoms (with or without epi-link).

Probable: Acute parotitis or other salivary gland swelling lasting at least 2 days, or orchitis or oophoritis unexplained by another more likely diagnosis, in:
- A person with a positive test for serum anti-mumps immunoglobulin M (IgM) antibody,
- OR
- A person with epidemiologic linkage to another probable or confirmed case or linkage to a group/community defined by public health during an outbreak of mumps.
Confirmed: A positive mumps laboratory confirmation for mumps virus with reverse transcription polymerase chain reaction (RT-PCR) or culture in a patient with an acute illness characterized by any of the following:

- Acute parotitis or other salivary gland swelling, lasting at least 2 days
- Aseptic meningitis
- Encephalitis
- Hearing loss
- Orchitis
- Oophoritis
- Mastitis
- Pancreatitis

Actions Requested

- Maintain vigilance for possible mumps cases, particularly in patients with parotitis and recent travel to affected counties.
  - Affected counties include: Grant, King, Pierce, Snohomish, Spokane, and Yakima.
- Be familiar with the symptoms of mumps which include pain, tenderness, and swelling in one or both parotid glands (cheek and jaw area). Nonspecific prodromal symptoms may precede parotitis by several days, including low-grade fever, myalgia, anorexia, malaise, and headache.
- Please review guidance for immunization of health care workers with MMR vaccine and ensure healthcare personnel have documented evidence of mumps immunity (before an exposure):
  - Documented receipt of 2 doses of MMR (or mumps) vaccine (at least 28 days apart).
  - Serologic evidence of immunity.
- Review your vaccine inventory and order appropriately.
- Please report suspected cases to GCHD at (509) 766-7960 for investigation and coordination of laboratory testing.

Infection Control Recommendations

- Hospitalized patients should be cared for using droplet precautions until the 6th day after the date of parotitis onset.
- Isolated all cases with parotitis for at least five days or until negative results.
  - Cases (including suspected cases) should stay home and not go to school, work, public places or social activities until 5 full days have passed since the date of parotitis onset. Family members who are not immune should avoid contact during the time the case is infectious. Healthcare workers with mumps illness should be excluded from work until the 6th day after the onset of parotitis, with the date of onset being day 0.
- Cases should be taught “respiratory etiquette”.

Exclusion

All symptomatic close contacts should be excluded from school, workplace and child care until they have been evaluated for possible mumps. Susceptible asymptomatic contacts other than health care workers should be excluded from school, workplace, and child care from the 12th day after the first exposure through 25 days after the last exposure.

Collection of Specimens for PCR Testing

In most cases if serologic testing is desired, send serum commercially and request both IgM and IgG results.

- On days 0-3 after onset of parotitis, collect a buccal swab only.
- On days 4-10 after onset of parotitis, collect both a buccal swab and urine.
• Please consult with GCHD about what testing can be considered if more than 10 days has elapsed since onset of parotitis.

**Testing: Buccal Swab Collection:**

• For patients with symptoms of mumps, **collect a buccal swab and urine for viral PCR and culture** at Washington State Public Health Laboratory. Buccal swab should be collected within 3 days of symptom onset.
  
  • Massage the parotid gland for about 30 seconds prior to collecting the specimen. Place a Dacron swab between rear molars and cheek (on the affected side if parotitis is unilateral) and leave in place 10–15 seconds. Place both swab in a tube containing 2-3 ml of cold viral transport medium (VTM).
  
  • Send serum to commercial lab for mumps IgM and IgG.
  
  • Use droplet precautions (mask and eye protection).
  
  • Ask patients to remain at home for 5-days post symptom onset.

**Mumps Reporting Requirements:**

Healthcare providers, healthcare facilities, laboratories: notifiable to GCHD within 24 hours to arrange specimen testing. Call GCHD and speak with a public health nurse if you have and questions- 509-766-7960.

• All requests for mumps testing at Public Health Lab (PHL) must have approval from GCHD, in consultation with an epidemiologist in Communicable Disease Epidemiology (CDE) at 877-539-4344 or 206-418-5500.

**Immunizations:**

MMR vaccine is 88% effective against mumps in people who have had two doses. The mumps vaccine is not recommended for use as post-exposure prophylaxis.

- MMR—one dose for preschoolers and low-risk adults
- MMR—two doses for school-age children and health care workers.
- Prior physician-documented mumps infection.
- Serologic evidence of immunity (IgG positive).
- Birth before 1957 (not applicable for use among healthcare workers in an outbreak setting)
  
  Generally, those without sufficient vaccinations or those lacking a written proof of prior disease, serology or vaccinations with two MMRs will be excluded, unless agreeing to receive a dose of MMR. MMR is contraindicated in those with a prior severe reaction to any component of MMR, those with immune deficiency or pregnancy.

**Mumps Information for Healthcare Providers:**

- [Mumps Disease Reporting](I WA-DOH)
- [Manual for the Surveillance of Vaccine-Preventable Diseases, Chapter 9: Mumps](I CDC)
- [Mumps Information for Health Providers](I CDC)

**Consultations**

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