



Medical Health Officers
UPDATE for Physicians

interior health

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Mumps in Merritt – Salmon Arm – Trail

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Nine cases of mumps have been identified in Interior Health. Cases reside in Merritt and Salmon Arm and are all members or close contacts of members of Junior A hockey teams. Suspect cases are also being investigated in Trail. Clinical presentation has included bilateral or unilateral parotitis, orchitis, anorexia and general malaise with illness onset from October 30 – November 19, 2013.

Although one case was unimmunized, other cases have been partially or fully immunized. Two-dose MMR immunization provides protection against mumps but recent outbreaks in BC and other parts of North America have demonstrated that mumps cases can occur in fully immunized 2-dose MMR recipients.

Physicians in Interior Health are requested to test and report patients suspected of having mumps according to the following guidelines:

Test all patients with suspect or probable mumps, and notify the IH CD Unit (toll-free 1-866-778-7736), or after hours notify the IH MHO on call (1-866-457-5648). Testing should include both:

1. **Viral isolation***: Take a buccal viral swab at Stenson's duct for mumps PCR. Collect oral specimens within 5 days of onset of symptoms. Also, collect a urine sample for viral culture. Mumps has been detected in the urine by isolation in cell culture up to 14 days after the onset of prodromal symptoms.
2. **Serology**: Order acute serology for mumps IgM and IgG, usually at presentation 3 - 5 days from the onset of prodromal symptoms. Convalescent serology should also be ordered for a week later (10 days or more post symptom onset).

Mumps typically presents as an acute unilateral or bilateral painful swelling of the parotid glands. A non-specific prodromal period may occur several days before swelling that can include fever, headache, malaise and anorexia. Clinical illness may occur with somewhat less pronounced symptoms in an individual with mumps infection in spite of previous 1 or 2 dose MMR, due to some partial immunity. Also, young children may present with non-specific respiratory symptoms. Post-pubertal males and females can get orchitis and oophoritis respectively, but this usually does not lead to infertility. There are rare but serious complications associated with mumps including meningitis, sterility and deafness.

The incubation period for mumps is 16-18 days, although it can vary from 12-25 days. All cases with suspect mumps should self-isolate at home, away from school and other social settings for nine days after the onset of parotid swelling. Mumps cases are most infectious from 2 days before to 5 days after the onset of parotid swelling. Exposure primarily comes from airborne transmission and direct contact with saliva or respiratory droplets from the nose or throat or from contact with any surface that has been contaminated with the mumps virus.

*note – viral isolation by viral buccal swab taken in the first three days after onset of parotid gland swelling is especially key in suspect but immunized cases. Serology may be difficult to interpret in previously vaccinated persons. IgM response is variable and may be absent. IgG rises soon after exposure and may already be high by the time acute serology is drawn, obscuring the 4 fold rise typically observed between acute and convalescent serum. Public Health can assist with serology and other lab result interpretation.