

Mumps Outbreak in Eastern Canada – University students returning home

An outbreak of mumps in Nova Scotia and New Brunswick began in January and February of 2007. To date, there have been 92 lab-confirmed cases in Nova Scotia and 18 in New Brunswick. Cases are occurring primarily among university students between the ages of 20-25 years. Universities are closing for the summer and students are returning home. Please be on alert for the possibility of a mumps case in a student returning from Eastern Canada.

Mumps is rare in Toronto, with an average of 5 cases reported per year over the last 10 years (1997 to 2006). There have been no new cases of mumps reported to Toronto Public Health since 2005.

The signs and symptoms suggestive of mumps include: fever, swelling of one or more salivary glands, loss of appetite, lethargy and headache. Asymptomatic infection occurs in one third of cases. Symptoms usually resolve in 1-2 weeks. Complications of mumps infection include orchitis, aseptic meningitis, encephalitis and miscarriage. The incubation period is typically 16-18 days (range 12-25 days). It is spread by droplets and direct contact with the saliva of an infected person. A person with mumps can transmit infection from 3 days before to 9 days after the onset of parotitis.

Anyone presenting with symptoms of mumps should be asked about recent travel or connection to Nova Scotia or New Brunswick.

One dose of the MMR vaccine given after the first birthday is considered adequate for protection from mumps infection. However, there have been reported vaccine failures in the Nova Scotia outbreak.

Laboratory diagnosis of mumps should include both serology and virus isolation/detection. Serology (IgM and IgG antibodies) should be obtained within 5 days of symptom onset. A buccal or throat swab and/or a urine sample should be sent for viral culture up to 9 days after onset of symptoms. In previously vaccinated individuals, serum IgM may be falsely negative in up to 50-60% of cases. Convalescent serology 14 days after symptom onset should be collected on previously vaccinated individuals with a negative serum IgM for mumps antibodies if the diagnosis is strongly suspected. Seroconversion or a significant rise in IgG titre in convalescent serology is indicative of recent infection.

Mumps is a reportable communicable disease. Please report all suspect and confirmed cases of mumps immediately to Toronto Public Health at 416-392-7411 (or 416-690-2142 after hours).