

## Mumps Outbreak in Toronto

Between July 20 and July 24, 2011, Toronto Public Health (TPH) received reports of 9 confirmed cases and 3 suspected cases of mumps among employees of Ki Restaurant (181 Bay Street, Toronto) or their contacts. The index case has a reported epidemiological link to an outbreak in British Columbia in June 2011. Individuals who have come into contact with these cases may develop signs and symptoms of mumps from now until August 16. Health care providers are being asked to watch for signs and symptoms suggestive of mumps. Toronto had 31 cases of mumps in 2010, and between 2005 and 2009 an average of 12 mumps cases were reported to TPH annually.

**Signs and Symptoms:** Mumps is an acute viral infection with a prodrome period consisting of non-specific symptoms which may include: myalgia, anorexia, malaise, headache, and fever followed by unilateral or bilateral parotitis. Approximately 60% to 70% of mumps infections result in acute parotitis, while 30% of infections are associated with non-specific or primarily respiratory symptoms. Complications can include meningitis, encephalitis, orchitis, oophoritis, pancreatitis, and deafness. Mumps during the first trimester of pregnancy is associated with an increased rate of spontaneous abortion.

Transmission occurs via direct contact with respiratory droplets or saliva. The incubation period ranges from 12 to 26 days following exposure, and the period of communicability ranges from 7 days before to 5 days after onset of parotitis.

**Diagnostic testing:** Laboratory diagnosis of mumps should include both virus isolation/detection and serology. As such, all of the following specimens should be collected:

- 1) Buccal (preferred) or throat swab collected up to nine days after parotitis onset, AND
- 2) Urine (20 ml) collected within 14 days after parotitis onset, AND
- 3) Acute serum: IgM and IgG for mumps within five days of symptom onset.

Convalescent serum (if the initial IgM is indeterminate or negative, and mumps is still considered likely) should be taken 14 or more days after symptom onset.

Additional testing information is available at:

<http://www.oahpp.ca/resources/documents/clinicalguidelines/Diagnostic%20Test%20Recommendations%20for%20Mumps%20-%20April%202010%20final.pdf>

**Vaccination:** People born before January 1, 1970 are generally considered to be immune. All children less than 18 years of age, as well as secondary and post-secondary students and health care workers, should be vaccinated with two doses of mumps containing vaccine (given as MMR vaccine) unless they have a history of mumps documented by a physician or laboratory evidence of immunity.

Those born in Ontario between 1970 and 1992 may have only received one dose of MMR vaccine; it is recommended that individuals who fall into this category should receive a second dose of MMR vaccine.

In recent outbreaks in the United States, some individuals who had received two doses of vaccine still became ill with mumps. However, the attack rate among this population sub-group was less than 10%, even after substantial exposure.

**Any suspect or confirmed cases of mumps should be immediately reported to the Medical Officer of Health by calling our surveillance unit at 416-392-7411 during work hours (8:30am to 4:30pm, Monday to Friday) or at 3-1-1 after hours.**

TPH has recently launched a website for Health Professionals. Please visit this website at <http://www.toronto.ca/health/professionals> and register to receive public health information.