

## Increased Circulation of Mumps in Toronto

Since September, Ontario public health units have received reports of 32 confirmed mumps cases, four of these cases were Toronto residents. An additional three Toronto residents had mumps signs and symptoms but could not be confirmed by laboratory testing. Approximately half of the Ontario cases were seen in university and high school students and half were unimmunized. This increased circulation of mumps in Toronto is linked to outbreaks among members of observant Jewish communities in New York, New Jersey and Quebec. The index case came from the United Kingdom where a nation-wide outbreak is affecting unvaccinated young adults. Although mumps is rare in Toronto (10-year average of five cases per year), clinicians should be mindful of this increased circulation of mumps even when assessing patients who have received two doses of mumps vaccine. Three quarters of the confirmed mumps cases seen in Brooklyn, New York who were part of this outbreak had two documented doses of mumps vaccine.

**Mumps Diagnosis** - Mumps is an acute viral infection with a prodrome of myalgia, anorexia, malaise, headache, and fever, followed by unilateral or bilateral tender swelling of parotid or other salivary glands. About 60% to 70% of mumps infections produce typical acute parotitis but approximately 20% of infections are asymptomatic, and nearly 50% are associated with nonspecific or primarily respiratory symptoms. Complications include orchitis, oophoritis, mastitis, meningitis/encephalitis and deafness. Transmission occurs by direct contact with respiratory droplets or saliva. The incubation period is 14-18 days (range: 14-25 days) and the infectious period is from three days before to nine days after symptom onset.

**Laboratory diagnosis** of mumps should include both virus isolation/ detection and serology. The preferred method of viral isolation is through a buccal swab obtained up to nine days after symptom onset. Acute serology for mumps IgM and IgG antibodies should be taken within five days of symptom onset. Convalescent serology (if initial test is negative and mumps is still considered likely) should be taken 14 or more days after the acute specimen. Information on all mumps tests including throat swab and urine testing can be found here:

[http://www.health.gov.on.ca/english/providers/pub/labs/mumps\\_diagnostic.html](http://www.health.gov.on.ca/english/providers/pub/labs/mumps_diagnostic.html)

**Vaccination** - All children less than 18 years of age as well as secondary and post-secondary students should be vaccinated with two doses of mumps containing vaccine (usually MMR vaccine) unless they have a physician's documented history of mumps infection or laboratory evidence of immunity. In recent U.S. outbreaks, some individuals who had received two doses of vaccine were still infected but their attack rate was less than 10%, even after substantial exposure.

**If you suspect a patient has mumps please report to Toronto Public Health as soon as possible at 416-392-7411 (or 416-690-2142 after hours).** We can also be reached via email at [cdsu@toronto.ca](mailto:cdsu@toronto.ca)

**For more information** [http://www.toronto.ca/health/immunization\\_children/immunization\\_mumps.htm](http://www.toronto.ca/health/immunization_children/immunization_mumps.htm)  
(Toronto Public Health mumps vaccine campaign)

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5845a5.htm>

(report of this mumps outbreak from the CDC)

<http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/07vol33/acs-08/index-eng.php>

(most recent NACI statement on mumps vaccine)

All Surveillance Alerts are posted at: <http://www.toronto.ca/health/cdc/surveillance>