

Health **FAX**

Measles Update

Attention: **All Physicians, Walk-In Clinics, Emergency Departments, Infection Control Practitioners, Family Health Teams, Community Health Centers, Nurse Practitioners**

Date: August 5, 2011

The Purpose of this HealthFax is to:

- Update information about the ongoing outbreak of measles in the province of Quebec.
- Advise health care providers about potential transmissions that could occur at various public venues from infectious measles cases vacationing in Ontario.

Measles in Quebec

As of July 13, 2011, 648 cases of measles have been reported to Quebec's Bureau de Surveillance et de Vigie (BSV) since January 8, 2011. 602 of those cases have been reported since May 1. Of the total, 614 cases are laboratory confirmed or clinical cases, and the investigation is ongoing for 34 cases. To date, 10 regions in Quebec have been affected with confirmed case(s) of measles since January 2011. Of the 614 confirmed or clinical cases, it is estimated that 81% were not immune (they received 0 doses of measles-containing vaccine, had no proof of immunization, were not eligible for immunization, or the information was unknown). The first reported cases were among travelers that were exposed during vacations in Europe, primarily in France. Subsequently, local transmission in Québec occurred, either through healthcare or community exposure. This outbreak is largely the result of local transmission.

Measles in Ontario

As you are aware, the spread of vaccine preventable diseases increases while traveling to, or visiting, places where infectious diseases are endemic or there are ongoing outbreaks. Because of its high communicability, this is particularly true of measles. Recently two individuals from Quebec, who travelled to Ontario, have been confirmed with measles. While in Ontario during their period of communicability, they visited Canada's Wonderland (July 17, 2011) and an eatery in Barrie (July 2, 2011) amongst other sites.

We recommend that healthcare providers be vigilant for the detection of measles.

- Consider measles in patients who present with some or all symptoms of measles. Symptoms begin with fever, cough, coryza and/or conjunctivitis, about 10 days (range 7-21 days) after exposure to a case of measles. The characteristic maculopapular rash develops on the 3rd to 7th day of the infection and individuals may transmit the infection from about 4 days before the rash begins until 4 days after. Koplik spots (clusters of small white lesions on the buccal mucosa) may manifest around the first day of the rash.
- Test for measles when suspected (see below).
- Advise patients who plan to travel to get immunized.

- If a case of measles is suspected, healthcare providers should ensure appropriate personal protective equipment is worn. As measles can be airborne, this includes a mask for the patient and N95 masks for providers if available. Symptomatic clients should be isolated as quickly as possible.

The following should be accepted as proof of measles immunity:

- Documentation of two (2) doses of live measles virus vaccine on or after the first birthday with a minimum of a month between doses, or
- The person was born before 1970, or
- Laboratory evidence of immunity.

Laboratory Testing

Laboratory testing of suspect measles cases must include both virus isolation and serology (see table).

Virus Isolation: A nasopharyngeal swab or aspirate, or a throat swab obtained within 4 to 7 days after the onset of rash **and** approximately 50 ml of urine within 7 days after the onset of rash. Specimens must be stored and shipped cold – measles is stable at 4 degrees C for 3 days.

Acute Serology: A blood specimen (5 ml collected in a serum tube) for measles antibodies (IgM and IgG) at the first visit and ideally obtained within 7 days after rash onset. When requesting measles specific IgM and IgG testing, please provide relevant clinical information on the lab requisition form and the purpose of the testing (e.g. suspect measles) to facilitate rapid testing.

Convalescent Serology: A second blood specimen should be drawn 14 days or more after symptom onset to check for seroconversion from a non-reactive to a reactive measles IgG antibody test, or for a significant rise in IgG antibodies between the acute and convalescent sera, as either are indicative of recent infection. Specify “convalescent measles serology”.

| Specimen | Test Code | Collection Kit | Expected Time for Results | Notes |
|-------------------------|------------------|---|----------------------------------|---|
| NP swab or throat swab | V24 | Virus culture (ship on ice pack) | Up to one week | |
| Urine | V24 | Virus-TM (ship on ice pack) | Up to one week | |
| Blood, clotted or serum | V24 | BL-S (ship on dry ice if greater than two days) | A few days | Specify if test is for immune status (IgG) or diagnosis of disease (IgM) – label STAT |

Measles is a reportable disease. If you suspect a case of measles or have questions regarding proper specimen collection, please contact the Simcoe Muskoka District Health Unit Communicable Disease Team at 705-721-7520 x8809 or 1-877-721-7520 x8809 (8:30 am – 4:30 pm).

Please refer to the following websites for additional information on measles:

Ministry of Health and Long-Term Care: Measles
<http://www.health.gov.on.ca/english/public/pub/disease/measles.html>

OAHPP Public Health Laboratories Specimen Collection Guide
<http://www.oahpp.ca/services/specimen-collection-guide.html>