

Health**FAX**

No Measles in Simcoe-Muskoka, but be aware of future potential imported cases

Attention: **Physicians, Emergency Departments, Walk- In Clinics/Urgent Care Clinics, Infection Control Practitioners, Nurse Practitioners, Occupational Health Professionals**

Date: **June 17, 2011**

This HealthFax is to inform you that the previously reported possible cases of measles under investigation were not cases upon further clinical, epidemiological and advanced laboratory investigations. Therefore, we have not had any recent confirmed cases of measles in Simcoe Muskoka.

As of January 1, 2011 to June 6, 2011, 11 cases of measles have been reported in Ontario. Cases are due to importation of measles exposure from the UK, India, New York City and France with some secondary spread within Ontario. Increased travel over the summer may contribute to increased imported cases.

We want to thank all of you for your heightened surveillance during this period of time and your continued contribution to the public health surveillance of important infectious diseases, particularly those that are reportable by you to public health by legislation. Your timely reporting allows us to collaborate with you on the investigation, diagnosis and management of your patients and their contacts to prevent further infections.

A copy of the reportable disease list can be found at:
http://www.simcoemuskokahealth.org/Libraries/TOPIC_InfectiousDisease/Simcoe_Muskoka_Reportable_Disease_List_2008.sflb

In addition, attached is a fact sheet for health care providers released by the Ministry of Health and Long-Term Care.

Please report suspect or confirmed cases of reportable diseases by:

- PHONE: 705-721-7520 or 1-877-721-7520 Ext. 8809; or
- FAX: 705-733-7738
- AFTER HOURS: 1-888-225-7851

Measles Activity in Ontario and Worldwide: For Health Care Providers

During the summer months, there will be an anticipated increase of travel within Canada and internationally. As a result, it is important to remain vigilant for importations of measles from regions with high disease activity, as well as other vaccine preventable diseases.

Ontario measles activity

In Ontario, 11 cases of measles have been reported from January 1, 2011 to June 6, 2011. Cases are due to importation of measles from exposures in the UK, India, New York City and France with some secondary spread within Ontario.

National activity-Quebec

In Canada, an outbreak is ongoing in Quebec with 254 confirmed cases as of June 6, 2011. Confirmed cases are in eight regions with the majority of cases in central east Quebec in Mauricie and Centre-du-Quebec. The first reported cases were among travellers that acquired the infection while in Europe, in particular, France. Subsequently, local transmission occurred.

Global activity¹

Recently, there has been increased measles activity reported worldwide with outbreaks in the Americas (USA, Peru and Guatemala), parts of Africa (Congo and Zambia), Asia (Bangladesh and India) and Europe (France, Spain, Switzerland, UK, and Germany).

¹http://www.who.int/immunization_monitoring/diseases/measlesreportedcasesbycountry.pdf

Preventative measures

- Ensure all travellers are up-to-date with their immunizations prior to travel. Please refer to the *Publicly Funded Schedules for Ontario*.
- Travellers should be up-to-date on measles immunization regardless of their travel destination:
 - **Infants and children:**
 - Two doses of measles, mumps, rubella (MMR) vaccine are recommended for children. The first dose of MMR vaccine should be given on or after the first birthday and the second dose should be given at 18 months of age. The second dose of MMR vaccine may be given as early as 28 days from the first dose.
 - Refer to the travel health information from the Public Health Agency of Canada (<http://www.phac-aspc.gc.ca/tmp-pmv/index-eng.php>) for recommendations regarding children under one year of age who are traveling to regions where measles is endemic, a concern or where outbreaks are occurring. It is important to assess the risk and benefits of providing MMR vaccine to children who are under one year of age on a case by case basis.

▪ **Adolescents and adults:**

- A second dose of MMR vaccine is recommended for those who plan to travel internationally.
- Adults may be protected against measles if they were born before 1970 or have proof of immunity (e.g. through blood testing).

Diagnosis of measles

A diagnosis of measles should be considered in any person with a generalized maculopapular rash, fever and cough, coryza and/or conjunctivitis. Laboratory diagnosis of measles is required for all sporadic (non-outbreak related) cases.

Since indigenous measles has been eliminated in Canada and measles has occurred rarely in Ontario since 1997, laboratory testing of suspect measles cases must include both serology and virus isolation/detection:

Initial lab testing:

- a) **Acute serology:** A blood specimen (5 ml collected in a serum tube) for measles antibodies (IgM and IgG) should be collected at the first visit (ideally within 7 days after rash onset).
- b) **Virus detection by PCR:**
 - i. A nasopharyngeal swab or aspirate or a throat swab obtained within 4 to 7 days after the onset of rash. Specimens should be collected using the Viral Transport Media (VTM) collection kit (Item # N-0081). These swab kits contain pink liquid medium.

and
 - ii. Approximately 50 ml of urine collected within 14 days after the onset of rash. Collect a clean catch urine and store in a screw top sterile container. Ensure that the laboratory requisition indicates that this is a **urine specimen** and that you are requesting **measles testing**.
 - iii. Measles is stable at 4°C for 3 days. Specimens must be stored and shipped cold. Freeze samples at -70°C if a delay in transport to the public health laboratories (PHL) is anticipated

Follow-up lab testing:

Convalescent serology: A second blood specimen collected 7 to 10 days after the acute sample to check for seroconversion or a significant rise in measles specific IgG antibodies between acute and convalescent sera. Seroconversion or a significant rise in IgG antibody titre is indicative of recent infection.

Note: If the acute (initial) serology results in a person with clinical symptoms of measles and known or suspected exposure to measles show low, indeterminate or negative IgM and IgG, both tests should be repeated no less than 3 days after the acute sample to monitor the expected rise in antibody level which would confirm recent infection.

When requesting measles specific IgM and IgG testing, please provide relevant clinical information on the lab requisition form and the purpose of the testing i.e. suspect measles, recent vaccination history and recent travel history.

Expected time to receive results

- A few days for blood test results.
- Up to a week for PCR results.

Note: Please ensure that your local public health unit is aware of all individuals who are being tested for measles.

Important information

Public Health Agency of Canada's travel health notice for measles: <http://www.phac-aspc.gc.ca/tmp-pmv/thn-csv/measles-rougeole-eng.php>

References

1. Bellini WJ, Icenogle JP. Measles and rubella viruses. In Murray PR, Editor. *Manual of Clinical Microbiology, 8th Edition*. ASM Press, Washington, D.C.; 2003.
2. Heymann DL, editor. *Control of Communicable Diseases Manual, 18th edition*. American Public Health Association. Washington, D.C.; 2004.
3. Labstract. Measles PCR-Addition to the Testing Menu at OAHPP Laboratories and Laboratory Testing Guidelines for Suspected Measles Cases June 15, 2011