

March 24, 2015

Attention: Physicians, Nurse Practitioners, Walk-in Clinics, Hospitals – Administration, Emergency, Infection Control, Occupational Health, Correctional Services, EMS

## **RE: UPDATE MEASLES IN ONTARIO**

As of March 18, 2015, 19 confirmed cases of measles have been reported in Ontario. Most recently, Hamilton Public Health Services is investigating a confirmed measles case. **At this time, there are no confirmed cases locally.**

**We therefore urge you to be vigilant and consider measles in both returning travellers and in individuals who have been in contact with a case of measles. Most cases of measles become apparent 10-14 days after contact with the virus (the range is 7-21 days).**

Most cases of measles occur among persons without adequate immunization. Although much less common, cases have been observed in individuals who have received two valid doses of measles-containing vaccine. Thus, a two-dose measles immunization history should not be used to rule out measles, and appropriate testing needs to occur in persons with illness compatible with measles.

Measles is a highly infectious virus that spreads easily. Signs and symptoms of measles include **fever, runny nose, cough, drowsiness, irritability, soreness and redness of the eyes.** A red blotchy rash appears on the 3<sup>rd</sup> to 7<sup>th</sup> day, beginning on the face and spreading down the body. A person with measles is **infectious 4 days before and 4 days after the onset of the rash.** Immunization is the best protection. For MMR recommendations, please refer to our previous Fax Facts dated February 6, 2015 and/or contact the Health Unit and ask to speak to a nurse in the Vaccine Preventable Disease Department.

## **REPORT SUSPECTED CASES OF MEASLES TO PUBLIC HEALTH IMMEDIATELY**

Patients **suspected** to have measles should wear a mask and be placed in a separate room with the door closed when in a health care setting. Only immune staff should be allowed to enter the room. Non-immune staff may only enter the room in very exceptional circumstances, i.e., they are the only available health care provider who can care for the patient and then a fit-tested N95 mask must be worn. Suspect cases should also be instructed to remain in isolation until contacted by public health.

Because measles virus can remain airborne for two hours, no further patients should be placed within the room for a two hour period (this could be sooner dependent on the number of air exchanges). Appropriate room cleaning is also required. Patient movement should be curtailed unless absolutely necessary and then only conducted with the patient wearing a surgical mask.

### **Diagnostic Testing**

Diagnostic laboratory testing is suggested for individuals who have a clinical syndrome and history compatible with measles and should include **both** measles virus detection (nasopharyngeal/ throat swab and urine) and diagnostic serology (acute and convalescent). The PHO Laboratories test information sheet provides comprehensive

information on specimen collection and submission:

<http://www.publichealthontario.ca/en/ServicesAndTools/LaboratoryServices/Pages/Index.aspx?letter=M>

### **Measles Virus Detection by PCR:**

- A nasopharyngeal swab/aspirate or throat swab collected using Viral Transport Media (pink liquid medium) obtained as soon as possible and within seven days after rash onset

**AND**

- Approximately 50 mL of urine collected within 14 days after the onset of rash.

### **Acute Serology**

- A blood specimen (5ml in serum tube) for measles antibodies (IgM and IgG) collected at the first visit (ideally within seven days after rash onset). The requisition should be clearly marked “acute measles serology”.

### **Convalescent Serology**

- A second blood specimen collected 7 to 10 days after the onset of rash (and a minimum of 5 days after the acute sample). The requisition should state “convalescent measles serology”. Seroconversion or a significant rise in IgG or IgM titre is indicative of recent/acute infection.

**Note:** Diagnostic laboratory testing on well persons who have recently received measles-containing vaccine as part of the routine schedule or in advance of planned travel is **not** indicated.

### **Indications for serological laboratory testing of immunity**

Serological testing to determine immunity in well persons is **not** routinely recommended. If a person’s immunization status is unknown, it is recommended to give another dose(s) of MMR vaccine rather than send serology to check his or her immunization status.

**On each laboratory requisition for virus detection (PCR) or diagnostic serology clearly mark “suspect case of measles.” All requisitions should contain the following information: patient’s symptoms, date of onset of symptoms, exposure history, travel history (if any) and vaccination history. Specimens must be stored and shipped cold.**

For information on testing for immunity to measles, please refer to

[http://www.publichealthontario.ca/en/servicesandtools/laboratoryservices/pages/measles\\_immunity\\_serology.aspx](http://www.publichealthontario.ca/en/servicesandtools/laboratoryservices/pages/measles_immunity_serology.aspx)

**For additional details on Infection Prevention and Control Practices, please refer to:**

PIDAC’s Routine Practices and Additional Precautions in All Health Care Settings, 3rd edition, November 2012

[http://www.publichealthontario.ca/en/eRepository/RPAP\\_All\\_HealthCare\\_Settings\\_Eng2012.pdf](http://www.publichealthontario.ca/en/eRepository/RPAP_All_HealthCare_Settings_Eng2012.pdf)

Measles Update for Clinicians available on the Public Health Ontario website at:

[http://www.publichealthontario.ca/en/eRepository/Measles\\_Update\\_for\\_Clinicians.pdf](http://www.publichealthontario.ca/en/eRepository/Measles_Update_for_Clinicians.pdf)

If you have additional questions, please call the Health Unit and ask to speak with a nurse in the Communicable Disease Control Department.

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