

Public Health
Central Zone

Date: Thursday, June 07, 2018

To: Central Zone Family Physicians and Emergency Department Staff; Nurse Practitioners; U of A Rural Family Medicine Program; CZMA; IPC; WHS; EMS; Communications; CDC; Public Health Nursing; Lab (AHS and Dynalife); E/DM.

From: Dr. Digby Horne, Medical Officer of Health – Central Zone

CONTEXT

This week AHS-Calgary Zone and Edmonton Zone have both reported a case of lab-confirmed measles without a history of out-of-country travel. Susceptible exposed contacts of these cases could develop measles infection with symptom onset ranging from today to late June. Measles outbreaks are currently occurring in Japan, Europe (Italy, Germany, Romania, Ukraine, Albania), and in Venezuela, as well as other areas globally.

Please triage and isolate patients with **fever and rash illness** immediately to a negative pressure room (if available) and use airborne precautions. In clinic settings, schedule patients with fever and rash illness to the last appointment of the day if possible.

CASE DEFINITIONS

Confirmed Case of Measles:

Laboratory confirmation of infection (in the absence of recent immunization with measles-containing vaccine) from appropriate serological and molecular tests, or **clinical illness** in a person who is epidemiologically linked to a lab-confirmed case.

Probable Case of Measles:

In the absence of both recent immunization with a measles-containing vaccine and lab confirmation of disease, clinical illness in a person with either an epidemiological link to a non lab-confirmed case or recent travel to an area of known measles activity.

Measles clinical illness includes **all** of the following:

- **fever 38.3° C or greater, AND**
- **cough, coryza or conjunctivitis, AND**
- **generalized maculopapular rash for at least 3 days** (red blotchy rash appears 3-7 days after symptom onset, beginning behind the ears and on the face and spreading down to the trunk and then to the extremities)

Actions:

1. **Report all confirmed and probable cases immediately to the Central Zone Medical Officer of Health on-call ph: 403-356-6430.** Suspect cases (clinical illness only) should also be reported. Public health will ask you for a list of all possible contacts of the case while they were in your facility and for two hours afterward.
2. Advise patient to remain at home with no visitors for 4 days after the rash onset. Also advise the patient that public health will be calling them for assistance in identifying contacts.

3. Arrange for testing of clinical specimens as outlined in laboratory tests section below.
4. **Make sure that you and your staff are immune to measles – two documented doses of measles vaccine regardless of year of birth, OR measles IgG positive serology, OR lab evidence of measles disease.**

Laboratory Tests:

Collect specimens from a suspect measles case at the time of first contact to ensure earliest confirmation of diagnosis. **NP swabs should be collected in your facility (not in the lab).**

For blood and urine tests in the community, **the laboratory collection site must be contacted for instructions prior to patient arrival to ensure other patients are not exposed.** Order **STAT** testing on a ProvLab Virology requisition – contact the Microbiologist on call to advise of the STAT order.

- a) **Urine:** Request PCR for measles virus; collect as soon as possible and within 7 days of rash onset (10-20 mL – keep refrigerated and transport to ProvLab for processing within 48 hours of collection)
- b) **NP (Nasopharyngeal) Swab** (in viral transport medium (pink)): Request PCR for measles virus; collect as soon as possible but no later than 4 days after rash onset. [NP collection kits and instructions are available from the ProvLab].
- c) **Blood:** Request measles IgM serology; optimally at 4-28 days after rash onset (if collected within first 3 days of rash, false negatives are likely, a second specimen may be needed later)

Provide symptoms, onset date, recent travel history, measles vaccination history on lab requisition.

Infection Control Recommendations:

- Measles is highly communicable from person to person via the airborne route from about one day prior to onset of prodromal period until four days after appearance of the rash.
- Persons sharing same airspace as a probable/confirmed case for any duration, including **up to two hours** after the case has left a closed area, are considered exposed and potentially at risk if not immune.
- An examination room (not negative pressure) should not be used for two hours after a potential case has left the room to allow suspended virus to settle. A routine cleaning prior to re-use is advised.
- Ideally see patients with fever and rash that could be measles at the end of the day, and in a private room with a door, to limit potential exposures at your clinic.

Additional References:

- Alberta Health. Public Health Management Guidelines: Measles. <https://open.alberta.ca/publications/measles>
- Public Health Agency of Canada. Vaccine Preventable Childhood Infectious Diseases www.phac-aspc.gc.ca/im/vpd-mev/measles-eng.php
- Provincial Laboratory Alberta. Laboratory Testing for Measles. www.ahs.ca/assets/wf/lab/wf-lab-laboratory-testing-measeles-bulletin.pdf

If you have further questions, please contact Communicable Disease Control (CDC) ph: 403-356-6420; 391-8027 after 4:30 pm, or the Central Zone MOH on-call ph: 403-356-6430.

Thank you for your attention and assistance.

This alert is posted on the AHS Medical Officers of Health webpage at www.ahs.ca/czmoh.