# Info-MADO Newsletter on Reportable Diseases Nunavik Department of Public Health 

## ALERT: Measles

By<br>Renée-Pier St-Onge, Advisor Manon Lefebvre, Advisor Jean-Sébastien Touchette, Medical Advisor Infectious-Diseases Team

## Epidemiological situation

As of April 22, 2024, 50 confirmed cases of measles have been reported in Québec since the beginning of February 2024 in the regions of Montréal, Laval, Mauricie-Centre-du-Québec, Laurentides, Montérégie, Lanaudière and Estrie. Although only 4 cases acquired the infection outside the country until present, the recrudescence of measles around the world increases the risk of infection among travellers, particularly if they are inadequately protected against measles.
The epidemiological investigation of these cases is under way in order to identify the contacts, provide them with post-exposure prophylaxis if indicated and undertake actions to protect the public (including home isolation of contacts who are unprotected against measles).
The list of locations where exposure to the measles virus occurred as well as the evolution of the number of measles cases in Québec are available at: Measles outbreak | Gouvernement du Québec (quebec.ca).

## Information

Measles is considered as having been eliminated in Canada since 1998. The occurrence of a case of measles is therefore exceptional and triggers widescale public-health action aimed at ending the spread. For general information on measles (symptoms, incubation period, period of communicability, individuals considered protected and those at risk of complications), see the appendix.

## RECOMMENDATIONS

1. Be alert when scheduling appointments and at reception and during triage:

- Identify any inadequately protected user* who presents one of the following clinical signs:
$>$ fever $\left(\geq 38.3^{\circ} \mathrm{C}\right.$ ) and
$>$ generalized maculopapular rash and

Take every opportunity to update individuals' immunization status, particularly children aged 1 to 4 years, who are at greater risk of the complications of measles. The effectiveness of the measles vaccine is 85 to $95 \%$ after the first dose and greater than $95 \%$ after the second dose.
$>$ cough, coryza or conjunctivitis.
*It is important to remain alert for individuals who are adequately protected and considered as contacts or who have symptoms suggestive of measles, as the clinical presentation of measles in such individuals can be atypical. As the vaccine is not $100 \%$ effective, cases of measles have been reported in Québec among individuals considered protected.
2. Quickly apply measures to prevent and control infections:

- Ask the user to perform hand hygiene and wear a medical mask.
- Isolate the user in a negative-pressure room or, if unavailable, an examination room with the door closed.
- Apply additional airborne and contact precautions.
- In the presence of a suspected measles case, wear an APR N95 if you are a healthcare professional.
- As needed, draw up the list of exposed individuals, including users and their accompaniers, as well as the personnel.

3. Request the appropriate laboratory tests according to the medical evaluation:

- The indications for prescribing a test to confirm measles depend on the clinical presentation and the individual's protection status and exposure:

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|  |  | Exposure to a case or a <br> known location of <br> exposure | Exposure during <br> travel | No documented exposure |
| :--- | :--- | :--- | :--- | :--- |
| Typical clinical <br> presentation | Not protected ${ }^{2}$ or <br> protected | To be tested | To be tested | To be tested |
| Atypical clinical <br> presentation | Not protected | To be tested | To be tested | No indication for measles test |
| Typical clinical <br> presentation | Protected | Consider testing 3 | No indication for <br> measles test | No indication for measles test |

${ }^{1}$ Presence of the following three criteria: fever AND cough and/or coryza and/or conjunctivitis AND generalized maculopapular rash.
${ }^{2}$ See appendix for the definition of "protected" status.
${ }^{3}$ If known contact with a case or if location of exposure is a day-care, an academic setting or a healthcare setting or if the individual to be tested is a health worker.

- If a measles diagnosis is suspected, it is necessary to confirm it with an appropriate test:

| Diagnostic test | Specimen | Period for taking the specimen $^{4}$ |
| :--- | :--- | :--- |
| Nucleic Acid <br> Amplification Testing <br> (NAAT) | Nasopharyngeal secretions <br> OR <br> Urine $(50-100 \mathrm{ml})$ | $\leq 7$ days after onset of rash |
| IgM serology for <br> measles $^{5}$ | Blood $(\geq 3 \mathrm{ml})$ | 3 to 28 days after onset of rash |

${ }^{4}$ Specimens taken later will be accepted, but the test's sensitivity will not be optimal.
${ }^{5}$ If the NAAT result is positive, it is not necessary to perform the serological test if not already taken.
** IgM serology for parvovirus B-19 and rubella is also recommended in order to exclude these diagnoses.

* If possible, perform the NAAT and the serological tests at the same time to avoid having a potentially contagious individual visit the premises again.

4. Identify the contacts of the case who are at risk of complications and administer the appropriate prophylaxis:

- Vaccinate individuals aged six months or older who are considered unprotected within 72 hours of the initial contact with a case of measles. See the section RRO : vaccin contre la rougeole, la rubéole et les oreillons of the Protocole d'immunisation du Québec (PIQ).
- Some people at-risk of complications must receive immunoglobulins (Ig) if the initial exposure to the contagious case goes back fewer than 7days. See the appendix as well as the section on measles post-exposure of the PIQ.

5. Quickly report any suspected case of measles responding to the indications for testing to the entities below:
$>$ the Department of Public Health of the case's region of residence. For Nunavik, contact the physician on duty for infectious diseases by telephone at 1855 964-2244 (toll free) or 1819 299-2990 (alternate number in case of problems with the toll-free number). Proceed with reporting without waiting for laboratory results in order to accelerate public-health interventions including the search for contacts and to enable administration of prophylaxis to individuals at risk of complications within the short time periods established;
$>$ the Infection Prevention and Control (IPC) team of your institution.
$>$ If the case does not require hospitalization, ask the person to isolate at home until the laboratory test results are available and then, if the diagnosis is confirmed, for 4 days after the onset of the maculopapular rash.

## Useful links

- Rougeole - Professionnels de la santé - MSSS (gouv.qc.ca)
- L'affiche Alerte! Rougeole!
- Measles outbreak $\quad$ Gouvernement du Québec (quebec.ca)
- Protocole d'immunisation du Québec (PIQ)
- Outil d'aide à la décision-Repérage et diagnostic de la rougeole (INESSS)


## APPENDIX: MEASLES

## SIGNS AND SYMPTOMS OF MEASLES:

- Prodrome
> Fever
> Conjunctivitis
> Coryza
> Cough
> Koplik spots (1 or 2 days before the rash)
- Maculopapular rash
$>2$ to 4 days after the onset of prodrome
$>$ Starts on the face and neck and then becomes generalized
$>$ Lasts at least 3 days and up to 7 days


## INCUBATION PERIOD:

The incubation period of measles is normally 10 to 14 days (exceptionally up to 21 days) between the time of contact and the onset of prodrome. The skin rash then appears 2 to 4 days later.

## PERIOD OF COMMUNICABILITY:

The period of communicability starts 4 days before the onset of the skin rash and lasts up to 4 days afterward.

## INDIVIDUALS CONSIDERED PROTECTED AGAINST MEASLES:

- Individuals born before 1970
- Individuals with serology indicating the presence of measles antibodies
- Individuals with a medical attestation confirming they had measles before January 1, 1996
- Individuals with written proof of vaccination against measles:
$>$ the number of doses required to consider an individual as being protected varies:
- 2 doses:
- individuals born since 1980
- individuals born between 1970 and 1979 and who are interns in the health sector, health workers or military recruits or those who intend to travel outside Canada
- 1 dose:
- individuals born between 1970 and 1979 who are neither interns in the health sector, health workers nor military recruits and not intending to travel outside Canada
- pregnant individuals born between 1970 and 1979 and who received only one dose of the measles vaccine should receive immunoglobulins after significant exposure


## INDIVIDUALS AT RISK OF COMPLICATIONS and for whom post-exposure prophylaxis (PEP) may be indicated:

- Children under 12 months
- Pregnant receptive individuals born in or after 1970 (including pregnant individuals born between 1970 and 1979 who received only one dose of the vaccine)
- The following immunosuppressed individuals:
$>$ those who have undergone a bone graft, regardless of their age or immunization status or whether or not they have already had measles
$>$ immunosuppressed individuals born in or after 1970 and who have never had measles (or who have no proof they have had the disease), regardless of their immunization status

