

SUBJECT: Measles
Date: February 21, 2024
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To: Primary Care Providers
From: Dr. Matthew Tenenbaum, Associate Medical Officer of Health

Actions to take:

- **Ensure all staff at your practice are up to date on their measles containing vaccines or have documented evidence of immunity.**
- **Consider offering vaccine to any patient that may be part of the under-immunized population.**
- **Complete titers for any patients with unknown immune status.**
- **Do not wait for lab confirmation, report any suspect measles cases to Wellington-Dufferin-Guelph Public Health.**
- **Utilize appropriate IPAC practices when assessing individuals with suspected or confirmed measles.**

Background

Reported cases of measles are on the rise worldwide. In 2023 there were 42,000 cases across Europe.¹ In the past two months approximately 23 confirmed cases of measles were reported in the United States². In Ontario, there have been 9 confirmed cases of measles between January 2023 and February 2024. Most notably, on February 12 a travel-related case of measles was reported in Peel Region.

Clinical Information and Signs and Symptoms of Measles

The initial onset of symptoms of measles usually occurs 7-21 days after exposure to a case of measles. Symptoms include fever, cough, runny nose, and conjunctivitis. Then 3-7 days after initial onset of symptoms a blotchy red (maculopapular) rash may appear on face and progress down the body.

When assessing a patient for measles, consider their vaccination status or any recent travel history. Individuals who have travelled internationally and who are unimmunized or under-immunized for measles are at increased risk of infection.

Infection Prevention and Control for Measles

Measles is one of the most infectious diseases and is spread by airborne droplet nuclei and close or direct contact with respiratory secretions of a case. The measles virus can remain active and contagious in the air or on infected surfaces for as long as 2 hours. When seeing a suspected measles case ensure to book at the end of the day to reduce exposure in the waiting room and assess the patient in a sealed, well-ventilated room with appropriate PPE. Appropriate PPE includes an N95 fit tested to the individual, goggles, gloves, and gowns may be added as required. Even those considered immune to measles should wear appropriate PPE. After patient assessment the exam room should not be used for at least two hours.

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Diagnosis of Measles

The preferred method of testing for acute measles infection are:

- Nasopharyngeal or throat swab PCR (within 7 days of rash onset)
- AND**
- Urine PCR (within 14 days of rash onset)

Refer to [Public Health Ontario's \(PHO\) Test information Index](#) for testing guidelines.

*Note: serology testing is not recommended for diagnosing acute cases of measles but can be used to determine immune status.

Treatment of Measles Cases

There is no specific treatment for measles infection; severe complications can be avoided through supportive care, nutrition, and adequate fluid intake. Most cases recover in 2-3 weeks.

Immunization

Immunization is an important intervention. Vaccine coverage rates of 95% are needed to achieve herd immunity in our communities. All individuals in Ontario are eligible for one or two doses of a measles containing vaccine depending on their age and risk factors:

- Children and youth should receive two doses of measles-containing vaccine: **MMR at 12 months, and a second dose of MMRV at 4-6 years of age.**
- Adults born in or after 1970 should have one dose of measles containing vaccine.
- In general, individuals born before 1970 are presumed to have acquired natural immunity to measles.³ Immunity can be confirmed through titers if in question (see PHO's [Test Information Index – Measles Serology](#) for more information).
- All healthcare workers, students in post-education settings, travelers to destinations outside of Canada and military personnel are recommended to have two doses of measles containing vaccine (or evidence of immunity) regardless of year of birth.

The measles vaccine is a live virus vaccine and about 5% of children report a fever, malaise and rash following vaccination. Pregnant individuals and anyone who cannot receive a live vaccine such as the immunocompromised should not receive this vaccine.

Reporting

Measles is a reportable disease. If you suspect a case of measles, please report to Wellington-Dufferin-Guelph Public Health immediately, **519-822-2715 ext. 4752**. After hours, weekends and holidays please call **1-877-884-8653**.

References:

1. United Nations Regional Information Centre for Western Europe. WHO: "Alarming" Risk of Measles Cases in Europe. [Internet]. 2024 January 24. [cited 2024 Feb 20]. Available from: <https://unric.org/en/who-alarming-rise-of-measles-cases-in-europe/>
2. Centers for Disease Control and Prevention. Stay Alert for Measles Cases. [Internet]. 2024 January 25. [cited 2024 Feb 20]. Available from: <https://emergency.cdc.gov/newsletters/coca/2024/012524.html>

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3. Public Health Agency of Canada. Measles Vaccine: Canadian Immunization Guide. [Internet]. Ottawa (ON): Government of Canada; 2023 October 31 [cited 2024 Feb 20]. Available from: <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines/page-12-measles-vaccine.html>

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