



Clinical Bulletin

RPPEO Guidance for Paramedics on Measles During the 2025 Ontario Outbreak

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Measles is one of the most contagious infectious diseases, primarily transmitted through the airborne route. Once in the air, measles virus particles can remain infectious for up to two hours — making early identification and containment essential.

In the current Ontario outbreak, paramedics are on the front lines, providing not only urgent care but also serving as the first barrier to further spread. Vaccination is highly effective — unlike some other infectious diseases — but even vaccinated individuals can occasionally be affected. Your careful assessment, infection control actions, and communication with hospitals is key to limiting measles transmission, especially among high-risk populations like infants, pregnant people, and the immunocompromised.

Practice Highlights

Mask symptomatic patients promptly.

Use appropriate PPE for airborne precautions, as defined by your service.

Gather and document vaccination and exposure history.

Notify receiving hospitals without delay.

Protect vulnerable people by minimizing exposure risks.





MMR VACCINE

WHAT YOU NEED TO KNOW



DISEASES

- **Measles** – highly infectious
- **Mumps** – swollen salivary glands
- **Rubella** – mild rash, serious in pregnancy

EFFECTIVENESS

~**93%** with 1 dose | ~**97%** with 2 doses

SAFETY

- Common side effects: fever, mild rash
- ~1 in 3,000: febrile seizure (no lasting harm)
- ~1 in 1 million: severe allergic reaction

WHO SHOULD GET IT?

- Children: 2 doses at 12–15 months & 4–6 years
- Adults: if no evidence of immunity

Sources: CDC, World Health Organization

Recognizing Measles: Clinical Presentation

Paramedics should be alert to several hallmark signs when suspecting measles:

- Fever $\geq 38.3^{\circ}\text{C}$ (oral)
- Upper respiratory symptoms: cough, runny nose (coryza), or red eyes (conjunctivitis), that present like a typical cold
- Generalized, erythematous, maculopapular rash lasting at least three days

In measles, the fever and “cold-like” symptoms appear first, followed by the rash 2–4 days later.

- If the rash appears earlier, measles is less likely.
- The rash typically starts on the face, then spreads to the neck and torso, followed by the extremities.

This progression pattern is a valuable clue for paramedics in differentiating measles from other viral illnesses during the assessment.

Key Practice Points for Paramedics

👤 Patient Assessment Essentials

Incorporate vaccination and exposure history into your assessments:

- Ask about MMR vaccination history.
- Check for **recent travel** to areas with known outbreaks or **known contact** with measles cases.
- Document findings thoroughly, even if the patient reports being vaccinated.

🦠 Infection Prevention and Control

Given that measles is an airborne pathogen, the use of appropriate Personal Protective Equipment (PPE) is essential. Paramedics must adhere to their service's protocols for airborne precautions, which align with Ontario's **Patient Care and Transportation Standards**. Key practices include:

- Masking the patient (if tolerated) immediately upon suspicion of measles.
- Limiting nonessential staff exposure and ensuring the patient remains in the designated care area or stretcher to prevent unnecessary movement through enclosed spaces.
- Cleaning and disinfecting vehicles and equipment following standard protocols.
- Operating vehicle exhaust fans during and after transport to reduce airborne contamination.

Why Notification is Crucial

Transporting a suspected measles patient without advance notice can trigger an ED shutdown due to airborne exposure, disrupting care for all other patients. This is not just an infection control issue — it's a critical system risk.