

## Measles Infection Prevention Recommendations for Emergency Medical Services

**Measles is highly contagious and spreads through the airborne route.** Virus may remain infectious in the air and on surfaces for up to **2 hours** after an infectious patient leaves an area. Use **standard + airborne precautions** for any patient with suspected or confirmed measles.

**Key messages:** All EMS providers should have measles immunity and wear a fit-tested N95 respirator or higher, mask the patient, minimize personnel exposure, ventilate the vehicle, notify the receiving facility before arrival, and manage the ambulance air-clearance period after transport.

### 1. Get Vaccinated

- All EMS providers should have documented [evidence of immunity](#). Evidence of immunity of measles for EMS providers includes:
  - Written documentation of vaccination with two doses of measles virus-containing vaccine; OR
  - Laboratory evidence of immunity; OR
  - Laboratory confirmation of disease; OR
  - Birth before 1957. Consider vaccinating if born before 1957 and do not have other evidence of immunity to measles.
- Those without [evidence of immunity](#) should receive two doses of MMR vaccine, or serologic immune status testing with follow-up vaccination for those who have negative or equivocal results.

### 2. Recognize Possible Measles

Consider measles in a patient who has an acute illness that includes:

- Generalized, maculopapular rash lasting  $\geq 3$  days; and
- Temperature  $\geq 101^\circ\text{F}$  or  $38.3^\circ\text{C}$ ; and
- Cough, coryza, or conjunctivitis.

Have a heightened suspicion for measles if picking up a patient with febrile rash illness living in an area with a known measles outbreak or recent international travel. This is particularly important in those who report that they are not fully vaccinated against measles.

### 3. Limit Exposure

- **Only personnel with documented measles immunity** should provide care when possible.
- Keep the patient separated from others.
- Minimize the number of responders entering the patient care area.
- Assess from a distance of **at least 6 feet** when feasible until PPE is in place.

#### 4. **Wear Personal Protective Equipment (PPE)**

Before patient contact or entering a closed space with the patient:

- Perform hand hygiene before putting on PPE.
- Wear a **fit-tested NIOSH-approved N95 respirator or higher-level respiratory protection**.
- Use gloves and other PPE according to Standard Precautions based on anticipated exposure, such as gown and eye protection if splash/spray risk is present.
- Perform hand hygiene after removing PPE.

#### 5. **Use Source Control for the Patient**

- Place a **surgical mask** on the patient immediately if medically tolerated and age/developmentally appropriate.
- Avoid aerosol-generating procedures (AGPs) unless medically necessary.
  - Examples include: intubation, CPR, open suctioning, manual ventilation.
  - If AGPs are performed, wear eye protection in addition to N95 respirator.
- Patients who are intubated should be ventilated with a bag-valve device or ventilator equipped with a HEPA filter in-line or on the exhalation port.
- Provide tissues to patients for secretion control and encourage patient hand hygiene and cough etiquette practices.

#### 6. **Ventilate the Ambulance / Transport Vehicle**

During transport:

- Keep the patient compartment ventilation/exhaust on **high**.
- Use **outside air** when possible; avoid recirculation.
- Isolate the driver compartment from the patient compartment when feasible.
  - If unable to isolate, driver should wear a fit-tested N95 respirator.
- Driver should wear a fit-tested N95 respirator if the compartments cannot be isolated or if entering the patient area.

#### 7. **Notify the Receiving Facility Before Arrival**

- Call ahead and clearly state: **“We are transporting a patient with suspected/confirmed measles requiring airborne precautions.”**
- Ask where to enter and transfer the patient. The receiving facility should be prepared to place the patient directly into an **airborne infection isolation room**, if available, and avoid unnecessary movement through the facility.
- When providing facility notification, indicate if any family or supports are accompanying the patient. If possible, all accompanying people should follow precaution protocols similar to the patient until immunity is confirmed.

## 8. After Transport

- Remove the ambulance/transport vehicle from service according to agency policy. General guidance is to allow **2 hours after the patient exits** before reuse, unless the agency has a validated air-clearance policy based on vehicle [air changes per hour](#).
- Clean and disinfect surfaces and equipment using an [EPA-registered disinfectant](#) according to directions on the label.
- Dispose waste and PPE as regulated medical waste per agency procedure, in accordance with federal and local regulations.
- Document personnel involved, PPE used, and any potential breaches or exposures.

## 9. Report Exposures

- Promptly report potential exposures according to agency policy and local/state public health requirements.
- Personnel without evidence of immunity will need public health evaluation, time-sensitive [post-exposure prophylaxis](#), monitoring, and possible quarantine or work restrictions.

## References

- [Administration for Strategic Preparedness and Response \(ASPR\) Tracie EMS Infectious Disease Playbook 2023](#)
- [CDC Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings](#)
- [New Jersey Department of Health Measles Guidance for First Responders](#)
- [New York State Department of Health EMS Provider Guidance for Suspected Measles Patients](#)
- [Pediatric Pandemic Network Measles Guide for Emergency Medical Services](#)
- [Virginia Department of Health Measles Information for Healthcare Providers](#)