



Measles in Healthcare Settings

What are the core measles prevention steps needed in a healthcare setting?

- Ensuring healthcare personnel (HCP) have presumptive evidence of immunity to measles
- Rapidly identifying and isolating patients with known or suspected measles
- Adhering to Standard and Airborne Precautions for patients with known or suspected measles
- Routinely promoting and facilitating respiratory hygiene and cough etiquette
- Appropriately managing exposed and ill HCP

What is considered presumptive immunity to measles for healthcare personnel (HCP)?

Individuals who work in healthcare settings should have **documented** presumptive evidence of immunity to measles. Presumptive evidence of immunity is classified as at least one of the following:

- Written documentation of vaccination with 2 doses of measles virus-containing vaccine (the first dose administered at age ≥ 12 months; the second dose no earlier than 28 days after the first dose); OR
- Laboratory evidence of immunity (measles immunoglobulin G [IgG] in serum; equivocal results are considered negative); OR
- Laboratory confirmation of measles; OR
- Birth before 1957*

*Consider vaccinating healthcare providers born before 1957 who do not have other evidence of immunity to measles.

During a measles outbreak, 2 doses of measles virus-containing vaccine are recommended for all HCP, regardless of year of birth.

Who is considered exposed to a measles case in a healthcare facility?

Since the measles virus can remain in the air for 2 hours, a line list of all individuals who came in direct contact with and/or were in any area where the measles-positive case was (including areas that have shared air handling) from 30 minutes before the arrival of the measles case to 2 hours after the case was properly isolated in the facility or has left the facility.

How can I minimize exposure to measles in the healthcare setting?

A. Before arrival to a healthcare setting

- Instruct persons with signs or symptoms of measles to call when they arrive at the parking lot, tell them which entrance to use, and to wear a facemask upon entering the building.
- Instruct Emergency Services to notify the receiving facility/accepting physician when transporting a patient with known or suspected measles.

B. Upon arrival to a healthcare setting

- Remember to identify, isolate, and inform. Use existing triage stations for rapid identification and isolation of patients with measles. Check for measles-compatible symptoms and any travel within the last 21 days (use the travel clinical assistant), properly isolate the patient, and inform Public Health by calling 1-866-PUB-HLTH (866-782-4584).
- Facilitate adherence to respiratory hygiene, cough etiquette, hand hygiene, and triage procedures.

C. Adhere to standard and airborne precautions

- Adhere to airborne precautions when caring for patients with known or suspected measles.

For information on standard and airborne precautions, refer to the *Guideline for Isolation Precautions*: https://www.cdc.gov/infection-control/hcp/isolation-precautions/precautions.html?CDC_AAref_Val=https://www.cdc.gov/infectioncontrol/guidelines/isolation/precautions.html

D. Patient placement

- Immediately place patients with known or suspected measles in an airborne infection isolation room (AIIR). The patient's facemask may be removed as long as they remain in the AIIR.
- If an AIIR is unavailable and/or if you cannot transfer the patient to a facility where an AIIR is available:
 - Pending transfer, place the masked patient in a private room with the door closed. If feasible, the patient should continue to wear the mask while in the non-AIIR room.
 - The patient should preferably be placed in a room where the exhaust is recirculated with high-efficiency particulate air (HEPA) filtration.
- After the patient leaves the room, it should remain vacant for the appropriate time (up to 2 hours) to allow for 99.9% of airborne-contaminant removal.

(See: Appendix B, Table B.1: <https://www.cdc.gov/infection-control/hcp/environmental-control/appendix-b-air.html>)

- An AIIR should meet current standards, including:
 - Providing at least six (existing facility) or 12 (new construction/renovation) air changes per hour.
 - Directing exhaust of air to the outside.
 - If an AIIR does not directly exhaust to the outside, the air may be returned to the air-handling system or adjacent spaces if all air is directed through HEPA filters.
- When an AIIR is used for a patient on airborne precautions, monitor air pressure daily with visual indicators (e.g., smoke tubes, flutter strips), regardless of differential pressure sensing devices (e.g., manometers).
- Keep the AIIR door closed when not required for entry and exit.

For information on AIIR requirements, refer to the 2007 <https://www.cdc.gov/infection-control/hcp/isolation-precautions/glossary.html#:~:text=AIIRs%20should%20provide%20negative%20pressure%20in,of%20air%20through%20a%20HEPA>

E. Healthcare personnel

- HCP without acceptable presumptive evidence of measles immunity should not enter a known or suspected measles patient's room if HCP *with* presumptive evidence of immunity are available.
- HCP should use respiratory protection (i.e., a respirator) that is at least as protective as a fit-tested, NIOSH-certified disposable N95 filtering facepiece respirator, regardless of presumptive evidence of immunity, upon entry to the room or care area of a patient with known or suspected measles.

F. Transporting patients with known or suspected measles within and between healthcare facilities

- Limit transport of patients with known or suspected measles to essential purposes, such as diagnostic and therapeutic procedures that cannot be performed in the patient's room or the facility.
- When transport within or outside the facility is necessary, inform the receiving area or facility and the transport vehicle HCP about airborne precautions being used.

G. Duration of airborne precautions

- Patients with measles should remain in airborne precautions for 4 days after the onset of rash (the onset of the rash is considered day 0).
- Immunocompromised patients with measles should remain in Airborne Precautions for the duration of illness due to prolonged virus shedding in these individuals.

Additional information

<https://www.cdc.gov/infection-control/hcp/healthcare-personnel-epidemiology-control/measles.html>

<https://www.cdc.gov/infection-control/hcp/measles/index.html>

<https://www.cdc.gov/infection-control/hcp/measles/appendix-a.html>

How do I manage exposed and ill HCP?

Asymptomatic healthcare personnel with presumptive evidence of immunity to measles who have an exposure to measles:

- Postexposure prophylaxis is not necessary.
- Work restrictions are not necessary.
- Implement daily monitoring for signs and symptoms of measles from the 5th day after their first exposure through the 21st day after their last exposure.

<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm#Tab3>

Asymptomatic healthcare personnel without presumptive evidence of immunity to measles who have an exposure to measles:

- Administer postexposure prophylaxis in accordance with CDC and ACIP recommendations.
https://www.cdc.gov/acip-recs/hcp/vaccine-specific/mmr.html?CDC_AAref_Val=https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/mmr.html
- Exclude from work from the 5th day after their first exposure through the 21st day after their last exposure, regardless of receipt of postexposure prophylaxis.
- Work restrictions are not necessary for HCP who received the first dose of MMR vaccine before exposure:
 - They should receive their second dose of MMR vaccine as soon as possible (at least 28 days after their first dose).
 - Implement daily monitoring for signs and symptoms of measles from the 5th day after their first exposure through the 21st day after their last exposure.

Healthcare personnel with known or suspected measles should be excluded from work for 4 days after the rash appears.

Immunocompromised healthcare personnel with known or suspected measles should be excluded from work for the duration of their illness.

During a measles outbreak, administer measles vaccine to healthcare personnel in accordance with CDC and ACIP recommendations https://www.cdc.gov/acip-recs/hcp/vaccine-specific/mmr.html?CDC_AAref_Val=https://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/mmr.html

When should I contact the Georgia Department of Public Health?

Report suspected cases of measles **IMMEDIATELY** by calling your local public health office or the DPH Acute Disease Epidemiology Section at 404-657-2588

during business hours, Monday through Friday. After hours and weekends, call 1-866-PUB-HLTH (1-866-782-4584).

How can I receive measles health alert notifications from the Georgia Department of Public Health?

Georgia's Health Alert Network is a secure web-based notification system used by the Georgia Department of Public Health to quickly notify our key healthcare partners of disease clusters, outbreaks, and other events of public health significance 24/7/365. To learn more about health alerts and to register, log on to

<https://dph.georgia.gov/epidemiology/epidemiology-emergency-preparedness/gahan>

More information about measles:

<https://dph.georgia.gov/epidemiology/acute-disease-epidemiology/vaccine-preventable-diseases/measles> or <https://www.cdc.gov/measles/index.html>.