



Measles Contact Investigations in Hospitals and Health Care Systems

Health care facilities and systems play a key role in identifying, managing, and communicating potential measles exposures to protect patients, staff, and visitors. Timely and transparent communication supports patient safety, reinforces trust, and allows appropriate infection prevention and public health actions to occur.

Planning is important to help investigations run smoothly if/when a highly infectious disease, such as measles, is occurring in the community.

In advance of any communicable disease or other public health threat being identified, health care facilities should talk to and have a relationship with the LHDs in the counties where the health care facility operates. It is important for health care facilities to understand their role and the capacity of the local health department. Capacity for contract tracing, vaccination, or administering IMIG varies across the state.

Confirmed Measles Case Identified

Measles is immediately reportable upon suspicion of disease, and testing for high-risk patients should be reported at the time of testing to the appropriate [Local Health Department](#) (LHD) where the patient resides. If a confirmed measles case was present in your health care facility during their infectious period (four days before rash onset through four days after rash onset), work with your LHD to initiate an exposure investigation.

Measles Exposure Area and Timeframe

Exposed people are those who have shared the same airspace with a confirmed measles case during their infectious period.

- There are no established guidelines for “shared airspace,” however knowledge of the facility’s air handling system can be helpful. Often the shared airspace in an emergency department is defined as the emergency department waiting room, exam rooms, and related hallway areas.
- People who spent any time in the same airspace from the time the infectious patient arrived in the area until **2 hours after** the infectious person left the airspace or was placed in an Airborne Infection Isolation Room (AIIR) **are considered exposed**.
- There is no minimum time in a shared airspace required to define an exposure and while a mask minimizes the potential of transmission, a mask does not eliminate possible exposure.
- See North Carolina’s [Measles Healthcare Infection Prevention FAQ’s](#).

Contact Investigation

Health Care Infection Prevention staff typically coordinate identification and assessment of exposed patients, visitors, and staff, and work with clinical, employee health, and administrative partners to determine measles immunity status.

Acceptable presumptive evidence of measles immunity* includes at least one of the following:

- Written documentation of adequate vaccination
 - ≥1 doses of a measles-containing vaccine administered on or after the first birthday for preschool-age children and adults not at high risk

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- 2 doses of measles-containing vaccine for school-age children and adults at high risk for exposure transmission (including health care personnel)
- Laboratory evidence of immunity
- Birth before 1957
- Laboratory confirmation of disease

**Health care personnel (HCP) have different criteria for acceptable presumptive evidence of immunity. See CDC guidance [here](#).*

Notification and Follow-Up

Health care facilities and systems should plan to initiate contact with exposed patients, visitors, and staff and to coordinate efforts with the LHD. LHDs will rely on coordination with health care facilities in some situations.

First, establish contact with the LHD to report your case. Depending on plans made with the LHD, facilities should plan to contact patients (or family members) who are likely to be unvaccinated (infants <12 months of age), potentially unvaccinated (infants 12-18 months of age), high-risk (pregnant or immunocompromised), or known to be unvaccinated, by phone as soon as possible. It should be determined:

- a. If infants aged 6-18 months of age have received a dose of MMR vaccine;
- b. If pregnant women can produce records of at least one dose of MMR vaccine;
- c. If immunocompromised people are severely immunocompromised*;
- d. If anyone else was with the patient at the time of the exposure, and whether they are high-risk, unvaccinated, or a health care or child care worker.

Depending on plans made with the LHD, facilities should also plan to contact all other potentially exposed patients:

- a. If the number of patients is manageable, these patients should be contacted by phone.
- b. If number of patients is too large for phone calls to be practical, an email or chart message or a certified letter may be sent. The health department might also be able to assist with notifications through texting or other means in some situations.
- c. Request that your facility be notified if the patient or anyone who was with them at the time of the exposure is high-risk (as above), unvaccinated, or a health care or child care worker.

If post-exposure prophylaxis (PEP) is indicated, and it is within the time window for the indicated PEP, the health care facility should work with the LHD to arrange for PEP administration. See North Carolina's [Measles PEP Guidance](#).

- a. Unvaccinated people of age ≥ 6 months without contraindications for MMR vaccine should receive MMR vaccine PEP <72 hours after first exposure. MMR vaccine given ≥ 72 hours after exposure is not considered PEP but will protect against future exposures.
- b. Unvaccinated infants <12 months of age who are outside the 72-hour MMR PEP window or immunocompromised children <30 kg (<66 lbs) should receive intramuscular immune globulin (IMIG) if it is ≤ 6 days after first exposure.
- c. Susceptible pregnant women should receive intravenous immune globulin (IVIG) if it is ≤ 6 days after first exposure. If a pregnant woman thinks she was vaccinated but doesn't have records, measles IgG testing may be done if there is time to get back results and give IVIG if needed.
- d. Severely immunocompromised people should receive IVIG regardless of their measles immunity status if it is ≤ 6 days after first exposure.

Finally, the facility should create a list of exposed contacts and provide it to the LHD so public health can complete additional follow-up. Information should include:

- Name, DOB, address, and phone number
- Immune status
- If the contact has been notified of the exposure and date and content of notification
- Date of exposure
- If PEP was administered, and, if it was, the date and type of PEP

Coordination with the Local Health Department

Plan with your LHD to issue a press release with the location and timing of the exposure as soon as possible. Exposure information for all measles exposures will be added to the [NCDHHS Measles Dashboard](#).

Below are examples of messaging your organization may use in notifying exposed patients, visitors, and staff. Text messages should be reserved for notifying individuals who are lower risk and do not qualify for PEP

“[Entity] is informing [patients, visitors, and staff] of a possible exposure to measles at *location* on *date* between *time*. We encourage all people who may have been in this location to monitor for symptoms and call [entity number] or their local health department with any questions or concerns. You may also receive a call from your local health department or the North Carolina Department of Health and Human Services, Division of Public Health. Symptoms of measles may include fever, cough, runny nose, pink or watery eyes, and a rash that starts on the head and spreads all over the body. For more information, please visit [entity website] or <https://www.dph.ncdhhs.gov/measles-text>.”

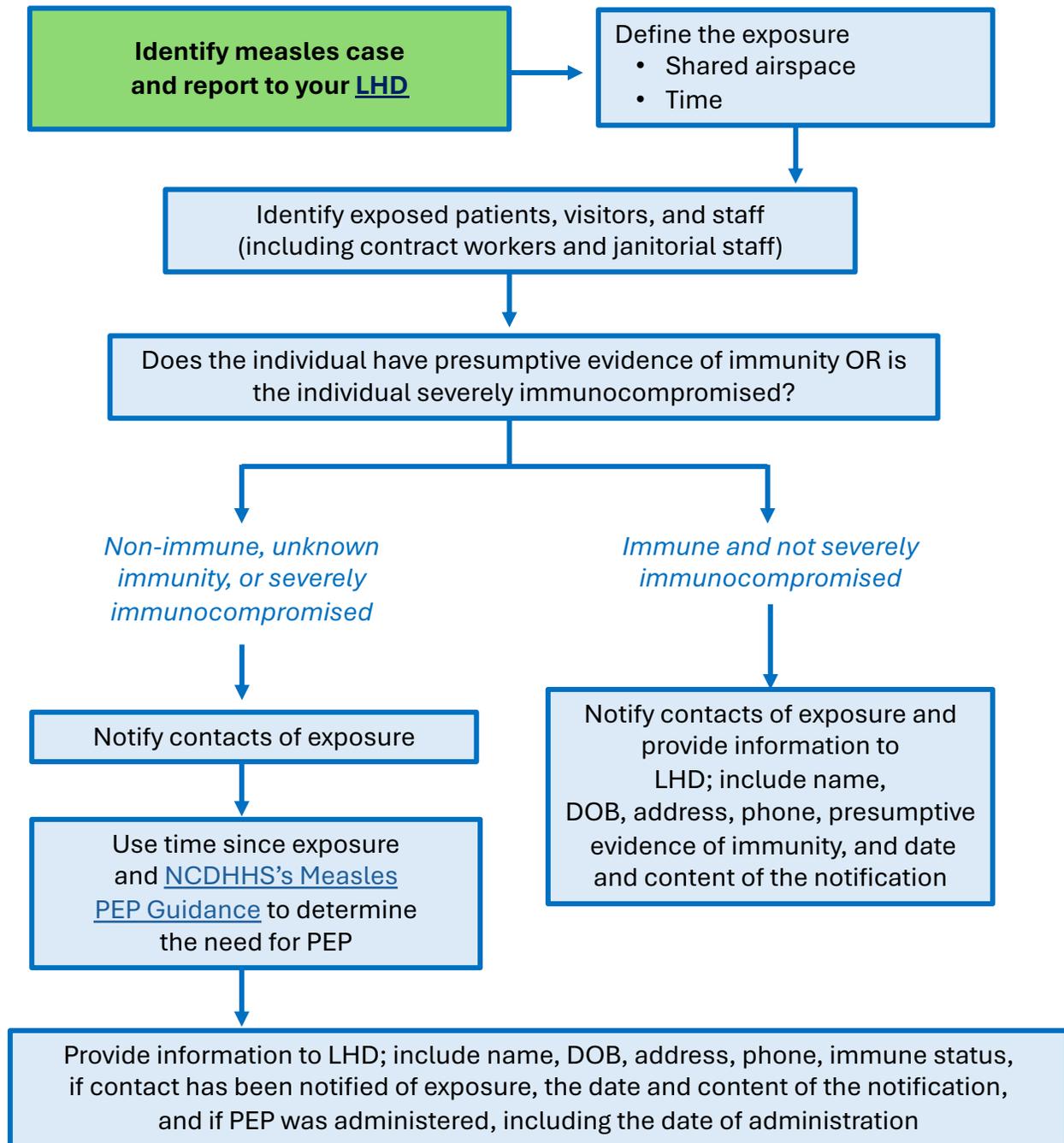
Or

“[Entity] is informing [patients, visitors, and staff] of a possible exposure to measles at *location* on *date* between *time*. We encourage all people who may have been in this location to monitor for symptoms and call [entity number] or their local health department with any questions or concerns. Contact your provider to find out if you are immune to measles. If you are not immune, a dose of MMR vaccine is recommended. Symptoms of measles may include fever, cough, runny nose, pink or watery eyes, and a rash that starts on the head and spreads all over the body. For more information, please visit [entity website] or <https://www.dph.ncdhhs.gov/measles-text>.”

*Severely immunocompromised patients include patients with severe primary immunodeficiency; patients who have received a bone marrow transplant until at least 12 months after finishing all immunosuppressive treatment, or longer in patients who have developed graft-versus-host disease; patients on treatment for ALL within and until at least 6 months after completion of immunosuppressive chemotherapy; and patients with a diagnosis of AIDS or HIV-infected individuals with severe immunosuppression defined as CD4 percent <15% (all ages) or CD4 count <200 lymphocytes/mm³ (aged >5 years) and those who have not received MMR vaccine since receiving effective ART. Some experts include HIV-infected people who lack recent confirmation of immunologic status or measles immunity.



Contact Investigation Expectations Algorithm



Note: Contacts may be contacted via text message by public health

