

Measles Information for Healthcare Providers

Action Items

- Healthcare providers should be alert for [signs and symptoms of measles](#), particularly among persons who have not yet received measles vaccination (MMR), including those who may have postponed or missed doses.
- Encourage MMR vaccination. Providers should also consider outreach to patients who are eligible for MMR to encourage routine immunization.
- Measles is a [Class A reportable disease](#). If measles is suspected, facilities should implement appropriate infection prevention and control measures and report any case, suspected case, or positive laboratory result *immediately via telephone* to the [local public health department](#) in which the patient resides.
- Measles virus testing is available at the Ohio Department of Health Laboratory (ODHL) for [eligible clinical specimens](#) upon approval.

Patients Presenting for Measles Evaluation

1. Patients presenting who report having been exposed to someone with measles or who are presenting with measles symptoms need to immediately don a face mask.
2. Do not allow patients with suspected measles to remain in the waiting room or other common areas; isolate patients with suspected measles immediately in an airborne infection isolation room if one is available. If such a room is not available, place the patient in a private room with the door closed. For additional infection control information, please refer to the [ODH Infectious Disease Control Manual](#).
3. If possible, allow only healthcare personnel with documentation of two doses of MMR vaccine or laboratory evidence of immunity to measles (i.e., measles IgG positive) to enter the patient's room.
4. Healthcare personnel should wear an N95 or higher-level respirator regardless of presumptive evidence of immunity.
5. Do not use the examination room for at least two hours after the possibly infectious patient leaves.
6. Notify the local health department in whose jurisdiction the patient resides immediately by telephone about any patients with suspected measles.
7. Notify any location where the patient is being referred for additional clinical evaluation or laboratory testing about the patient's suspected measles status, and do not refer patients with suspected measles to other locations unless appropriate infection control measures can be implemented at those locations. The patient must wear a mask, if feasible.
8. Instruct the patient to isolate while awaiting test results, through 4 days after rash onset. Instruct the patient and exposed persons to inform all healthcare providers of the possibility of measles prior to entering a healthcare facility so appropriate infection control precautions can be implemented.
9. Make a list of staff and other patients who were in the area during the time the patient with suspected measles was in the facility and for two hours after they left. When you report the suspect case to the local health department, they will provide you with template for reporting the contacts demographics and vaccination status.

Clinical Recognition

Incubation period from exposure to symptom onset is typically 8-12 days (range is 7-21 days)

Symptoms

1. Prodrome (begins following incubation period and can last anywhere from 2-8 days)
 - A. Fever
 - B. Cough
 - C. Coryza (runny and/or stuffy nose)
 - D. Conjunctivitis (with or without discharge)
 - E. During the Prodromal period a pathognomonic enanthema (Koplik spots) over the buccal mucosa may be present. These are white, gray, or blue spots on the buccal mucosa. Koplik spots disappear as rash is developing.
2. Development of Rash 3-5 days after other symptoms.
 - A. A maculopapular rash starting on the scalp (i.e., face, behind ears, neck, etc.) and spreading cranial to caudal.
 - B. Note that the rash may be less erythematous on darker skin.
 - C. Rash in the absence of fever and preceding respiratory symptoms is rare.
 - D. Rash will disappear in the same manner of appearance (craniocaudally).
 - E. Rash usually lasts about 4-5 days and slowly fades.

Communicability is greatest from four days before the onset of rash until four days after the onset of rash.



Figure 1. A. Early rash and conjunctivitis, B. Koplik spots in early measles C. Rash in young child with measles, D. Rash three days after onset, E. Skin sloughing with recovery

Source: [World Health Organization](#), [Centers for Disease Control & Prevention](#), [Red Book](#)

Complications of Measles	
Common	Less common
Otitis media	Acute encephalitis
Bronchopneumonia	Death
Laryngotracheobronchitis (croup)	Subacute sclerosing panencephalitis (SSPE)
Diarrhea	
Dehydration	

People at high risk for complications

- Infants and children aged <5 years
- Adults aged >20 years

- Pregnant women
- People with compromised immune systems, such as from leukemia and HIV infection

When to test for Measles

Consider measles as a diagnosis in anyone with a febrile illness and clinically compatible symptoms. A clinical history should include assessment for known contact to someone with measles, recent travel to areas with measles transmission, including international travel or travel to outbreak areas within the U.S., and MMR vaccination status. At the time measles testing is ordered, facilities should begin completing a list of all individuals who may have been exposed. Exposed individuals include any patients and staff who were in the facility during the time the patient was evaluated and for two hours after the patient left. This information will need to be provided to the local health department to begin immediate assessment and notification of contacts to reduce further spread of disease.

Diagnostic Testing

For patients with suspected measles, collect both a respiratory (oropharyngeal or nasopharyngeal) swab for RT-PCR and serum specimens for IgM and IgG testing. Clinical specimens for RT-PCR should be collected at the same time as samples for serological testing. Ohio Department of Health Laboratory (ODHL) is the preferred laboratory for measles testing; see below for how to order testing through ODHL. Specimens for virus isolation and RNA detection should be collected within three days of rash onset. Detection of measles RNA and measles virus isolation are most successful when samples are collected on the first day of rash through the 3 days following onset of rash. Detection of measles RNA by RT-PCR may be successful as late as 10–14 days after rash onset.

How to Order Measles Testing

Testing for measles virus is available through ODHL for eligible clinical specimens. To request approval for testing at ODHL, healthcare providers should contact the local public health department in which the patient resides. For patients who are residents of Henry County, contact 419-599-5545. Measles testing can also be performed by commercial laboratories. Benefits of testing through ODHL include a faster turnaround time and the ability of ODHL to do further specialized testing on submitted samples, if needed. Regardless of where testing is to be performed, all suspected cases must be reported *immediately* by telephone to the local public health department in which the patient resides.

*Remember to instruct patients who may have measles to isolate while awaiting test results, through 4 days after rash onset. Instruct the patient and exposed persons to inform all healthcare providers of the possibility of measles prior to entering a healthcare facility so appropriate infection control precautions can be implemented.

Ordering Guidance: Measles PCR and IgM and IgG- Use when active measles is suspected. Measles IgG – use when seeking to confirm measles immunity in an asymptomatic individual.		
Purpose for test	Detail	Comments
Diagnosing measles	NP or OP swab for PCR AND Serum for IgM and IgG	Contact LHD to report any suspect case while patient is in testing facility. ODHL submission <i>preferred</i> (approval needed); may use commercial lab.
Checking measles immune status	Serum for IgG only	No approval needed

Treatment for Measles:

Treatment is supportive care. No specific antiviral therapy is available. Please consult clinical guidelines regarding the use of administration of vitamin A for individuals diagnosed with measles. [CDC Yellow Book 2024](#).

Prophylaxis for Exposure

Please be aware of the measles post-exposure prophylaxis recommendations (see *Attachment 3*) guidelines regarding post-exposure prophylaxis. The local health department where identified contacts reside will reach out to contacts to assess documentation of vaccination, need for post-exposure prophylaxis, and quarantine recommendations. **If your patient is identified as a contact of a measles case, we may be reaching out to your office to confirm vaccination status of your patient and ask for your cooperation in providing this information.**

See Attachment 3 (Measles Postexposure Recommendations) for postexposure recommendation table.