



# MARYLAND Department of Health

*Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary*

April 8, 2019

Dear Colleagues:

The Maryland Department of Health (MDH) recently identified a laboratory-confirmed measles infection in a Maryland resident. Given this finding, as well as the growing number of measles cases in other areas of the country, we are asking clinicians in Maryland to have heightened vigilance for measles, and to take prompt action to prevent additional measles cases. This includes rapidly identifying patients with suspected measles, implementing strict infection control measures, conducting appropriate diagnostic testing, and notifying your local health department. It is also important that you and all healthcare workers are protected against measles.

Measles is an acute viral respiratory illness characterized by a prodrome of fever, cough, coryza, conjunctivitis lasting for 2-4 days, followed by a maculopapular rash that appears about 14 days after exposure and spreads progressively from the hairline to the face, then torso and extremities. Other symptoms include Koplik spots, lymphadenopathy and malaise. Patients are contagious from 4 days before to 4 days after the rash appears. Measles is highly communicable, with greater than 90% secondary attack rates among susceptible persons.

## **Rapid identification of suspected measles**

Rapid identification of suspected measles is key to preventing further exposures. Healthcare providers should consider measles in patients presenting with febrile rash illness and clinically compatible measles symptoms, especially if the person recently traveled internationally or was exposed to a person with febrile rash illness. A person is considered exposed to measles if they shared the same airspace as a person with measles during the infectious period (4 days before to 4 days after rash onset) or entered a closed area up to 2 hours after a person infectious with measles was in the area.

You should ensure your facility has facility-specific protocols to rapidly identify such patients and prevent possible transmission. These protocols might include measures such as advising patients with symptoms or exposures concerning for measles to call before presenting to your healthcare facility in person and posting signs with measles information in waiting rooms or triage rooms to encourage patients to quickly notify staff about relevant symptoms.

If a provider must refer a patient with suspected measles to another healthcare facility, it is critical that the provider communicate in advance with staff at the receiving facility so that appropriate infection control measures can be implemented.

**We also ask that you immediately notify your local health department if you suspect that a patient has measles.**

## **Infection control measures**

In healthcare settings, strict airborne precautions should be followed if a patient is suspected or confirmed to have measles. All healthcare staff entering the room should use respiratory protection consistent with airborne infection control precautions (use of an N95 respirator or a respirator with similar effectiveness in preventing airborne transmission). The preferred placement for patients who require airborne precautions is in a single-patient airborne infection isolation room.

Outside of healthcare settings, patients with suspected measles should be given instructions for strict isolation in a home setting until they are contacted by local health department staff and notified that isolation is no longer necessary. If laboratory testing confirms measles infection, infected people must be isolated for four days after they develop a rash.

### **Diagnosis and laboratory testing**

If you encounter a patient suspected to have measles **obtain both a serum sample and a nasopharyngeal swab**. The swab should be placed in Viral Transport Media. The serum should be tested for measles-specific IgM antibody and the nasopharyngeal swab should be tested for measles by PCR. Results of measles PCR testing are generally available within one day.

**To request measles testing at MDH, please call your local health department *before* submitting specimens.** If testing is approved, your local health department will provide details about specimen submission and required paperwork.

### **Reporting to Public Health Authorities**

Healthcare providers should **immediately notify the local health department if you suspect that a patient has measles**. Do not wait for laboratory confirmation to contact the local health department.

### **Evidence of immunity**

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

- Written documentation of adequate vaccination:
  - One or more doses of a measles-containing vaccine administered on or after the first birthday for preschool-age children and adults not at high risk
  - Two doses of measles-containing vaccine for school-age children and adults at high risk, including college students, healthcare personnel, and international travelers
- Laboratory evidence of immunity
- Laboratory confirmation of measles
- Birth before 1957

Healthcare providers should not accept verbal reports of vaccination without written documentation as presumptive evidence of immunity. Additional details about evidence of immunity to measles are at <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm#Tab3>.

### **Measles post-exposure prophylaxis (PEP)**

People exposed to measles without evidence of immunity against measles should be offered PEP. To potentially provide protection or modify the clinical course of disease among susceptible persons, either administer MMR vaccine within 72 hours of initial measles exposure, **or** immunoglobulin (IG) within six days of exposure. Do **not** administer MMR vaccine and IG simultaneously, as this practice invalidates the vaccine.

Prophylactic IG should be given to people exposed to measles who are at risk for severe illness and complications, including:

- Infants younger than 12 months of age
  - For infants aged 6 through 11 months, MMR vaccine can be given in place of IG, if administered within 72 hours of exposure
- Pregnant women without evidence of measles immunity
- People with severely compromised immune systems, regardless of immunologic or vaccination status

## Measles vaccination in routine scenarios, including healthcare workers

High rates of vaccination in communities is a critical component of preventing measles outbreaks. Please ensure that all of your patients for whom MMR vaccination is indicated are up-to-date. Current CDC recommendations for MMR vaccine are at <https://www.cdc.gov/vaccines/vpd/mmr/hcp/index.html>.

Healthcare personnel should have 2 documented doses of MMR vaccine, or documented evidence of immunity against measles.

## Measles vaccination in special scenarios

Healthcare providers should consider the following steps for patients who might be at increased risk of measles exposure, such as people planning to travel to areas with measles outbreaks (see list of measles outbreaks reported to CDC here: <https://www.cdc.gov/measles/cases-outbreaks.html>), or who might have contact with visitors from these areas:

- **Children 6-11 months old:** Give an initial MMR vaccine to children 6 months through 11 months of age to help protect them against measles. These children must be revaccinated when they are 12 through 15 months old and again when they are 4 through 6 years of age.
- **Children 1-3 years old:** Give a second dose of MMR vaccine to children 1 year through 3 years of age who have already received their first MMR vaccine, as long as 28 days have passed since the first MMR vaccine was given to them.
- **Adults:** In adults born after 1957 who have only received 1 dose of MMR vaccine, give a second dose of vaccine. MMR vaccine can also be given to adults born before 1957 if prior exposure to measles is uncertain.

## Additional resources

### **Maryland local health departments**

<https://health.maryland.gov/Pages/departments.ASPX>

### **CDC: Measles information for healthcare providers**

<https://www.cdc.gov/measles/hcp>

### **Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013 Summary Recommendations of the Advisory Committee on Immunization Practices (ACIP)**

<https://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf>

Thank you for your efforts to prevent additional measles cases in Maryland through rapid identification of suspected measles cases, implementation of strict infection control measures, collection of appropriate clinical specimens for diagnostic testing, and notification of your local health department of any suspected or confirmed measles case. If you have questions, please contact the MDH Infectious Disease Epidemiology and Outbreak Response Bureau at 410-767-6700.

Sincerely,



Monique Duwell, MD, MPH  
Chief, Center for Infectious Disease Surveillance and Outbreak Response  
Maryland Department of Health