



Department of Health

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To: Healthcare Providers, Hospitals and Local Health Departments

From: New York State Department of Health (NYSDOH), Bureau of Immunization

INFORMATIONAL MESSAGE: Updated Measles Outbreak Control Guidelines

Please distribute to: Medical Director, Director of Nursing, Family Medicine, Internal Medicine, all Primary Care Providers

SUMMARY

On November 12, 2019, the NYSDOH issued updated measles outbreak control guidelines. These guidelines have been updated to reflect current NYS and Centers for Disease Control and Prevention (CDC) policy and guidance regarding measles identification, reporting, and control. Key points of the updated guidelines include:

- Although the 2018-19 measles outbreak is now over, healthcare providers should maintain vigilance for cases of measles in persons with signs and symptoms compatible with measles, particularly in persons with a recent history of international travel or exposure to a suspect or confirmed case of measles.
- Healthcare providers, healthcare facilities and laboratories must immediately report all suspected cases of measles to the local health department (LHD) in which the patient resides upon initial suspicion. Delays in reporting can impair public health efforts to control measles transmission.
- LHDs outside of New York City must immediately notify the NYSDOH of all suspected cases of measles, including any requests to submit clinical specimens to the Wadsworth Center for measles testing.
- Testing for measles should be done on the basis of clinically compatible signs and symptoms with or without a recent history of exposure to measles or of international travel. Measles testing of persons without compatible signs and symptoms and no known sick contacts or travel history is of minimal benefit.
- About 5% of people will experience fever and rash following the first dose of measles-containing vaccine, typically occurring 7-12 days after vaccination. Measles testing of recently vaccinated people with rash and fever and who have no known sick contacts or recent travel history is likely to be of minimal benefit. However, PCR testing with determination of measles genotype is recommended for people presenting with fever and rash following both recent measles-containing vaccine and exposure to measles, such as a person who was administered post-exposure prophylaxis following exposure to a case of measles.

MEASLES CASE DEFINITION

The Council of State and Territorial Epidemiologists (CSTE) case definition of measles is:

- Probable case: In the absence of a more likely diagnosis, an acute illness characterized by generalized, maculopapular rash lasting ≥ 3 days **and** temperature $\geq 101^{\circ}\text{F}$ or 38.3°C **and** cough, coryza or conjunctivitis with:
 - No epidemiologic linkage to a laboratory-confirmed measles case **and**
 - Noncontributory or no measles laboratory testing.

- Confirmed case: An acute febrile rash illness with:
 - Isolation of measles virus from a clinical specimen, not explained by measles-containing vaccination in the previous 6-45 days **or**
 - Detection of measles virus-specific nucleic acid from a clinical specimen using polymerase chain reaction (PCR) not explained by measles-containing vaccination in the previous 6-45 days **or**
 - Immunoglobulin G (IgG) seroconversion from negative to positive (as documented during the illness) or a four-fold rise in measles IgG antibody not explained by measles-containing vaccination in the previous 6-45 days **or**
 - A positive serologic test for measles IgM antibody performed at the public health laboratory and not explained by measles-containing vaccination in the previous 6-45 days **or**
 - Direct epidemiologic linkage to a case confirmed by one of the methods above.

Note: The temperature does not need to reach $\geq 101^{\circ}\text{F}$ and rash does not need to last ≥ 3 days if laboratory criteria are met.

MEASLES REPORTING

- The LHD must be notified immediately by telephone as soon as a diagnosis of measles is suspected.
- A Confidential Case Report Form (DOH-389) must be submitted. The DOH-389 is located at <https://www.health.ny.gov/forms/doh-389.pdf>. Call (518) 402-5012 to obtain copies of the reporting forms.
- LHDs outside of New York City must notify the NYSDOH of all suspected cases of measles, preferably when the case is reported to them and no later than 24 hours after they are notified. LHDs should contact their regional representative or the NYSDOH Bureau of Immunization during business hours, and the NYSDOH Duty Officer system on nights, holidays and weekends.

MEASLES TESTING

- Confirmatory laboratory tests for measles are:
 - Culture,
 - PCR,
 - IgM, or
 - IgG seroconversion from negative to positive or a four-fold rise in measles IgG antibody.
- LHDs outside of NYC must notify the NYSDOH of any requests to submit clinical specimens to the Wadsworth Center for measles testing.

- Laboratory specimens must be properly packaged and shipped.
- Laboratory testing should be done on the basis of clinically compatible signs and symptoms of measles and/or a recent history of exposure to measles or of international travel.
- Measles may present with modified or milder symptoms in vaccinated people; laboratory testing should be ordered when vaccinated people with known exposure to measles or recent travel history present with fever and rash of any duration.
- However, measles testing of persons without compatible signs and symptoms and no known sick contacts or travel history is of minimal benefit.
- People who have recently been vaccinated with a measles-containing vaccine will first mount an IgM response, which may be detectable for up to 1-2 months after vaccination, followed by an IgG response which should persist for many years. This post-vaccination IgM response does not indicate active infection but rather, the body's immune response to vaccination. Serologic testing in an individual who was vaccinated in the previous 6-45 days cannot distinguish measles infection from the response to vaccination. As such, serologic testing of persons recently vaccinated with measles-containing vaccine in the previous 6-45 days is of minimal benefit.
- About 5% of people will experience fever and rash following the first dose of measles-containing vaccine, typically occurring 7-12 days after vaccination. This reaction represents the body's immune response to the live vaccine. As noted above, serologic testing of such individuals cannot distinguish measles disease from the response to vaccination and therefore is of minimal benefit. Additionally, measles PCR or culture testing of individuals recently vaccinated with measles-containing vaccine who have no known sick contacts or recent travel history is also likely to be of minimal benefit.
- However, persons presenting with fever and rash following both recent measles-containing vaccine and exposure to measles, such as a person who was administered post-exposure prophylaxis following exposure to a case of measles, should have clinical specimens collected for PCR testing. If PCR testing is positive, further testing to determine the genotype (e.g., wild type vs. vaccine type) will be necessary to distinguish measles infection from vaccine reaction.

ADDITIONAL INFORMATION

- NYSDOH Measles Outbreak Control Guidelines, 2019:
https://www.health.ny.gov/prevention/immunization/providers/docs/measles_outbreak_control_guidelines.pdf
- NYSDOH Measles web page: www.health.ny.gov/measles
- NYSDOH Measles for Health Care Providers:
<https://www.health.ny.gov/prevention/immunization/providers/measles/>
- NYSDOH Wadsworth Center Measles Virus Testing Collection, Packaging and Shipping Instructions:
https://www.health.ny.gov/prevention/immunization/providers/measles/docs/testing_collection.pdf
- NYS Communicable Disease Reporting Requirements:
<https://www.health.ny.gov/professionals/diseases/reporting/communicable/>
- NYS County Health Department contact information:
https://www.health.ny.gov/contact/contact_information/
- For additional questions about measles surveillance and control, please contact the NYSDOH Bureau of Immunization at: (518) 473-4437 or email immunize@health.ny.gov