

TO: Vermont Health Care Providers, Hospitals, and Ambulatory Care Centers

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U.S. Measles Outbreaks - Information for Vermont Clinicians

Since the beginning of this year, 79 U.S. measles cases have been reported to the Centers for Disease Control and Prevention. Two states – New York and Washington – are currently experiencing large measles outbreaks. Both outbreaks are linked to low measles vaccination rates in children.

While no measles cases have been confirmed in Vermont in 2019, one case was reported in 2018 – a young child who contracted measles while traveling internationally. The child had only received one dose of MMR vaccine prior to travel.

In New York, cases have primarily occurred in the lower Hudson Valley, and parts of New York City among the Orthodox Jewish community. New cases have continued to occur since the outbreak was identified in October. As of Feb. 6, 67 outbreak-related cases have been reported in Brooklyn alone. In Washington, as of Feb. 7, 51 cases have occurred in Clark County – next to Portland, Oregon – and one case in King County, which includes Seattle.

Recommendations for Health Care Providers

Consider measles when evaluating clinically compatible illnesses.

Measles typically presents in adults and children as an acute, viral illness characterized by fever and generalized, maculopapular rash. The prodrome may include cough, conjunctivitis and coryza. Koplik spots – blue-white spots on the buccal mucosa – are occasionally seen. The rash usually starts on the face, proceeds down the body, and may include the palms and soles. The rash, which lasts for several days, initially appears discrete, but may become confluent before fading in order of appearance. Complications include diarrhea, otitis media, pneumonia, hepatitis, and encephalitis.

Report all suspected cases of measles immediately to the Health Department’s Infectious Disease Epidemiology program (802-863-7240; available 24/7). Do not wait for laboratory confirmation to report.

Test for measles.

- Collect blood in a red-top or serum separator (tiger top) tube for measles IgM and IgG, and collect a throat or nasopharyngeal swab for measles PCR.
- Allow the blood to clot thoroughly, and then centrifuge the tube to remove serum from the clot. Centrifuge gel separation tubes within two hours of collection.

- Measles IgM results from blood specimens collected within the first 72 hours after rash onset may be falsely negative, and may need to be repeated before rule-out. Interpretation of measles IgM results in vaccinated people should be made with caution, as the serologic response may be attenuated or absent.
- Use synthetic swabs (non-cotton) in viral transport media. Refrigerate all specimens after collection and transport on ice packs within 24 hours of collection.
- Contact the Health Department for assistance with submitting specimens for testing. Testing will be performed at no charge by the Health Department Laboratory.

Transmission and Infection Control

Measles is transmitted by airborne particles, droplets, and direct contact with the respiratory secretions of an infected person. Infected individuals are contagious from four days before rash onset through the fourth day after rash appearance.

Meet suspect cases at the door with a mask if you are alerted prior to their arrival. Screen for fever with rash at the point of entry into a health care facility, and place symptomatic individuals in airborne isolation immediately. If a negative pressure room is not available, place the patient in an exam room with a mask, and do not use that room for two hours after the patient has left.

Ensure all patients are up to date on MMR vaccine.

Presumptive evidence of immunity to 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

Health care providers should not accept verbal reports of vaccination without written documentation as presumptive evidence of immunity.

All health care personnel should have documented evidence of immunity to measles. Although birth before 1957 generally is considered acceptable evidence of measles immunity, two doses of MMR vaccine should be considered for unvaccinated personnel born before 1957 who do not have laboratory evidence of disease or immunity to measles.

For those who travel abroad:

- Infants age 6 through 11 months should receive one dose of MMR vaccine before departure. (Infants who get one dose of MMR before 12 months of age should get two more doses – one at age 12-15 months and another at least 28 days later.)
- Children age 12 months or older should have documentation of two doses of MMR vaccine separated by at least 28 days.
- Teenagers and adults who do not have evidence of immunity to measles should get two doses of MMR vaccine separated by at least 28 days.

Post-exposure Prophylaxis

Non-immune individuals age 6 months and older should receive MMR vaccine within 72 hours of the initial exposure to prevent disease, unless they have a contraindication to vaccination.

People who receive one dose of MMR before exposure should receive a second dose, provided it has been at least 28 days since a previous dose of MMR, varicella or live intranasal influenza vaccine.

Immune globulin (IG) – not MMR vaccine – should be given as post-exposure prophylaxis to non-immune individuals who are exposed to measles and are at high risk for complications. IG should be given as soon as possible and no later than six days after exposure to prevent or modify measles. Contact the Health Department to request IG.

Measles Information for Clinicians

Resources for clinicians are available on the Health Department's website:

<http://www.healthvermont.gov/immunizations-infectious-disease/other-reportable-diseases/measles>.

If you have questions, contact the Vermont Department of Health, Infectious Disease Epidemiology program at 802-863-7240.