

Health Advisory:

Measles Recommendations for Missouri Health Care Providers

February 4, 2015

This document will be updated as new information becomes available. The current version can always be viewed at <http://www.health.mo.gov>

The Missouri Department of Health & Senior Services (DHSS) is now using 4 types of documents to provide important information to medical and public health professionals, and to other interested persons:

Health Alerts convey information of the highest level of importance which warrants immediate action or attention from Missouri health providers, emergency responders, public health agencies, and/or the public.

Health Advisories provide important information for a specific incident or situation, including that impacting neighboring states; may not require immediate action.

Health Guidances contain comprehensive information pertaining to a particular disease or condition, and include recommendations, guidelines, etc. endorsed by DHSS.

Health Updates provide new or updated information on an incident or situation; can also provide information to update a previously sent Health Alert, Health Advisory, or Health Guidance; unlikely to require immediate action.

Health Advisory
February 4, 2015

**FROM: GAIL VASTERLING
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**SUBJECT: Measles Recommendations for Missouri Health Care
Providers**

The large number of measles cases in the U.S. this year stresses the importance of vaccination. Healthcare providers should use every patient encounter to ensure that all patients are up to date on vaccinations; especially before international travel. Travelers with measles continue to bring the disease into the U.S., which can then spread to communities or groups of people who are unvaccinated.

Measles was declared eliminated in the U.S. in 2000 due to high 2-dose measles vaccine coverage, but it is still endemic, or large outbreaks are occurring, in countries in Europe (including France, the United Kingdom, Spain, and Switzerland), Africa, Asia (including India), and the Philippines. The increase in measles cases and outbreaks in the U.S. this year underscores the ongoing risk of importations, the need for high measles vaccine coverage, and the importance of prompt and appropriate public health response to measles cases and outbreaks.

Measles is a highly contagious, acute viral illness that is transmitted by contact with an infected person through coughing and sneezing. Patients are considered to be contagious from 4 days before until 4 days after the rash appears. After an infected person leaves a location, the virus remains contagious for up to 2 hours on surfaces and in the air. Measles can cause severe health complications, including pneumonia, encephalitis, and death.

Recommendations for Health Care Providers.

Exposure to measles is not a contraindication to immunization. Available data suggest that the measles vaccine, if given within 72 hours of measles exposure, will provide protection in some cases. If the exposure does not result in infection, the vaccine should induce protection against subsequent measles exposures. (*MMWR*, June 14, 2013 / 62(RR04);1-34.)

For those who travel abroad, the Centers for Disease Control and Prevention (CDC) recommends that all U.S. residents older than 6 months be protected against measles and receive the MMR vaccine, if needed, prior to departure.

- Infants 6 through 11 months old should receive 1 dose of the MMR vaccine before departure.*
- Children 12 months of age or older should have documentation of 2 doses of the MMR vaccine (separated by at least 28 days).
- Children 1 through 12 years of age may receive the MMRV vaccine for protection against measles, mumps, rubella, and varicella; however, MMRV vaccine is not recommended for the first dose in the MMR series of vaccinations for children ages 12 months through 47 months.** CDC recommends that the

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MMR vaccine and the varicella vaccine be administered separately for the first dose in this age group. Providers who are considering administering MMRV vaccine should discuss the benefits and risks of both vaccination options with the parents or caregivers.

- Teenagers and adults without evidence of measles immunity[†] should have documentation of 2 appropriately-spaced doses of the MMR vaccine.

Health-care providers should maintain a high suspicion for measles among febrile patients with a rash. Patients with clinical symptoms compatible with measles (febrile rash plus cough, coryza, and/or conjunctivitis) should be asked about recent travel abroad and contact with returning travelers, or contact with someone with a febrile rash illness. Their vaccination status should also be verified. Immunocompromised patients may not exhibit rash or may exhibit an atypical rash. The incubation period for measles from exposure to fever is usually about 10 days (range, 7 to 14 days) and from exposure to rash onset is usually 14 days (range, 7 to 21 days).

Persons who have been exposed to measles should contact their healthcare provider if they develop cold-like symptoms with a fever and/or rash. They should **NOT** go to any healthcare facility without calling first. The suspect case should be kept separate from others to prevent further spread.

Isolate suspect measles case-patients and immediately report suspected cases to the local public health agency, or to the Missouri Department of Health and Senior Services (DHSS) at 573/751-6113 or 800/392-0272 (24/7). To ensure a prompt public health response, do not wait for laboratory confirmation.

The Missouri State Public Health Laboratory (MSPHL) provides laboratory support for the diagnosis of measles infections occurring in Missouri. In addition, the laboratory may refer specimens to a Vaccine Preventable Disease (VPD) reference laboratory for further diagnostic testing and characterization. (VPD laboratories are established in cooperation with public health laboratories and CDC to provide reference testing and surge capacity.) In all cases, please collect and submit a serum specimen (collected at least 72 hours after rash onset) for measles IgM serology. This serum specimen, submitted to MSPHL, will be tested for measles IgM and rubella IgM as requested by the investigating epidemiologist.

In addition, a specimen for RT-PCR testing should be collected and submitted to MSPHL along with the serum specimen, and include NP swab, throat swab, or urine (see the CDC instructions below). Please note that a RT-PCR specimen should NOT be substituted for a serum specimen. The RT-PCR specimen will be referred to a VPD laboratory.

Measles serology instructions: <http://health.mo.gov/lab/measlesrubella.php>

CDC measles RT-PCR instructions (do NOT ship specimens directly to CDC):
<http://www.cdc.gov/measles/lab-tools/rt-pcr.html>

The sensitivity of measles IgM assays varies and may be diminished during the first 72 hours after rash onset. If the result is negative for measles IgM and the patient has a generalized rash lasting more than 72 hours, a second serum specimen should be obtained and the measles IgM test should be repeated. (AAP. *Red Book*, 2012; p. 491.)

* Infants who receive a dose of MMR vaccine before their first birthday should receive 2 more doses of MMR vaccine, the first of which should be administered when the child is 12 through 15 months of age and the second at least 28 days later.

**In MMRV vaccine pre-licensure studies conducted among children 12-23 months of age, fever (reported as abnormal or elevated 102°F or higher oral equivalent) was observed 5-12 days after vaccination in 21.5% of MMRV vaccine recipients compared with 14.9% of recipients who received MMR vaccine and varicella vaccine separately.

†One of the following is considered evidence of measles immunity for international travelers: (1) documentation of age-appropriate vaccination with a live measles virus-containing vaccine: for infants aged 6–11 months, 1 dose; for persons aged ≥ 12 months, 2 doses; or (2) laboratory evidence of immunity; or (3) laboratory confirmation of disease; or (4) born before 1957.

For further guidance, please refer to: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm?s_cid=rr6204a1_w

Questions should be directed to DHSS' Bureau of Communicable Disease Control and Prevention at 573/751-6113 or 800/392-0272 (24/7).