

June 1, 2011

To: Providers, Hospitals, Emergency and Primary Care Departments, and Local Health Departments

From: New York State Department of Health, Bureau of Immunization

HEALTH ADVISORY: PREVENTING MEASLES IN NEW YORK STATE
Please distribute to the Chief Medical Officer, Infection Control Department, Infectious Disease Department, Director of Nursing, Emergency Department Director, Primary Care Clinic Directors, Director of Risk Management/Quality Improvement, Director of Pharmacy, and all patient care areas.

SUMMARY

- During January 1–May 20, 2011, a total of 118 cases of measles were reported from 23 states and New York City (NYC) -- the highest reported number for the same period since 1996. Patients ranged in age from 3 months to 68 years. The source of 13 cases that are not import-associated could not be determined. Among the 46 imported cases, most were among persons who acquired the disease in the World Health Organization (WHO) European Region or South-East Asia Region, and 34 (74%) occurred in U.S. residents traveling abroad.
- To date, 11 cases have been reported in NYC and 5 cases of measles have been reported in New York State (NYS), outside of NYC, since January 1, 2011. Of the 5 cases outside of NYC, one case patient had no travel history or known exposure, one infant travelled internationally to India, one was a traveler from France, and two cases were the result of emergency room exposures.
- Several instances have occurred where suspect measles cases were not promptly recognized and appropriately isolated resulting in large numbers of other patients and family members exposed to measles. In these cases, recommendations from the Centers for Disease Control and Prevention (CDC) dictate that the hospital or clinic must compile lists and contact by phone all exposed patients and family members and call them in for MMR vaccination or Immune Globulin injection (Measles, United States, January-May 20, 2011, Early Release, May 24, 2011, [Morbidity and Mortality Weekly Report \(MMWR\)](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e0524a1.htm?s_cid=mm60e0524a1_w): http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e0524a1.htm?s_cid=mm60e0524a1_w).

Therefore, all Article 28 facilities should review their airborne disease triage and isolation procedures (Siegel JD, Rhinehart E, Jackson M, Chiarello L, and the Healthcare Infection Control Practices Advisory Committee, 2007 Guideline for Isolation Precautions: Preventing Transmission of Infectious Agents in Healthcare Settings

<http://www.cdc.gov/ncidod/dhqp/pdf/isolation2007.pdf>) to assure that any patient with a febrile rash illness is promptly identified, removed from common waiting areas, has a surgical mask placed on them if they can tolerate it, and placed in a negative pressure isolation room for examination. In addition:

- Ensure all health care personnel are immune to measles.
 - Immediately report clinically suspect cases of measles, prior to laboratory confirmation, to the local health department (LHD).
 - Work with the LHD for an appropriate community discharge plan.
 - Collect specimens for diagnostic testing. Arrangements for laboratory testing can be made through the LHD.
 - The successful initiation of measles post exposure prophylaxis (PEP) requires rapid intervention. LHDs will assist with the proper PEP recommendations and infection control measures.
- All travelers, children and adults, with destinations outside the United States (U.S.) should be up to date on their immunizations prior to travel. Measles outbreaks are common in both developed and developing countries, making the risk for exposure to measles high for many U.S. travelers. Infants 6 – 11 months of age who are traveling outside of the U.S. should receive a dose of measles, mumps, and rubella (MMR) vaccine prior to travel.

BACKGROUND

During January 1–May 20, 2011, a total of 118 U.S. cases of measles were reported from 23 states and NYC. Among the 118 cases, 105 (89%) were import-associated, of which 46 (44%) were importations from at least 15 countries. Nine US outbreaks have been reported during this time period. Transmission has occurred in emergency departments, households, child care centers, shelters, schools, and at a large community event. Boston, Massachusetts, NYC and upstate New York have identified cases with no travel history or known exposure indicating undiagnosed measles cases in these communities.

Two recently confirmed cases of measles in NYS have resulted in 100's of exposures in hospital emergency departments due to delays in considering the diagnosis of measles and in instituting airborne isolation. While most of the population is immune, these exposures put non-immune individuals at risk for becoming infected, particularly young children and the immunocompromised that are at highest risk for severe complications.

MEASLES EPIDEMIOLOGY

Measles can be severe and is highly infectious; following exposure, up to 90% of susceptible persons develop measles. It is spread by contact with an infected person and through coughing and sneezing. Measles virus can remain active and contagious for up to 2-3 hours in the air or on surfaces.

From exposure to rash onset averages 14 days with a range 7 to 18 days. Measles is characterized by a prodrome of fever (101–105 degrees F) followed by cough, coryza, and/or conjunctivitis. An erythematous, maculopapular rash presents 2-4 days later and lasts ≥ 3 days. It usually starts on the face and proceeds down the body to involve the extremities last, including the palms and soles. The rash is usually discrete but may become confluent on the upper body; it resolves in the same order that it appeared. Koplik's spots (punctate blue-white spots on the bright red background of the buccal mucosa) may be present but are often not seen and are not required for the diagnosis of measles. Health care providers have confused the diagnoses of measles recently, by mistaking Koplik's spots for the oral lesions of Coxsackie or Kawasaki's diseases.

REPORTING DETAILS

Health care providers should increase their index of suspicion for measles in clinically compatible cases. The LHD should be notified of any suspect case immediately. Reports should be made at the time of initial clinical suspicion. If the diagnosis of measles is being considered and diagnostic testing for measles is ordered, then the case should be reported at that time. LHDs should also be notified of discharge plans from the health care setting. This is especially important if the case lives in a multifamily dwelling, dormitory, group home or has young children at home.

INFECTION CONTROL

Measles is spread via airborne transmission and direct contact with infectious droplets. Cases of fever and rash illness should immediately be placed in airborne isolation. If an airborne infection isolation room is not available, then the exam room used to isolate a suspect measles case should not be used for 2 hours after the case leaves the room and the number of people entering and leaving should be minimized. When transporting a patient through the hospital, the patient should be masked. If possible, elevators and corridors should not be used for two hours after the patient has passed through them. Any procedures needed by the patient should be performed in the patient's room or delayed until the patient is no longer infectious, if possible.

LABORATORY TESTING

Serology and viral specimens (urine or nasal-pharyngeal swab) should be obtained for diagnostic testing and confirmation. Use of commercial laboratories for measles testing may take up to a week for results. Reporting suspected cases of measles enables access to rapid testing through the NYS Wadsworth Center Laboratory. Viral specimens that result in a positive culture will be forwarded to the Centers for Disease Control and Prevention (CDC) for confirmation and genotyping.

MEASLES POST-EXPOSURE PROPHYLAXIS (PEP)

The successful initiation of measles PEP requires rapid intervention. LHDs can assist with the proper PEP recommendations and infection control measures. Measles vaccination should be administered to susceptible contacts of a measles patient within 72 hours of exposure and may offer protection. Immune globulin is indicated for susceptible household or other close contacts of patients with measles, particularly contacts younger than 1 year of age, pregnant women and

immunocompromised persons, for whom risk of complications is highest. Immune globulin should be given within 6 days of exposure, to prevent or lessen the severity of measles.

MEASLES VACCINATION RECOMMENDATIONS

Children 6–11 months of age who are traveling outside the United States

- Should receive a dose of MMR vaccine prior to international travel.
- MMR vaccine given before 12 months of age should not be counted as part of the routine series. Children who receive MMR vaccine before age 12 months will need two more doses for a total of three doses, the first of which should be administered at 12–15 months of age (12 months if the child remains in a high-risk area), and the second at least 28 days later (typically at age 4–6 years or before beginning kindergarten).

Children ≥ 12 months, adolescents, and adults who are traveling outside the United States

- All children regardless of whether they are traveling should receive an MMR vaccine at 12–15 months of age. Children over one year of age who have received one dose of MMR vaccine more than a month prior to international travel should receive a second dose prior to departure, as long as 28 days have passed since the first dose.
- Anyone who has received two valid doses of MMR, or other live measles-containing vaccine, is considered immune to measles.
- Documentation of provider-diagnosed measles disease, laboratory evidence of immunity, or having been born before 1957 are also accepted as proof of immunity to measles.
- Anyone who lacks proof of measles immunity, as defined above should receive MMR vaccination prior to international travel.

ADDITIONAL INFORMATION

For additional information on measles outbreak control measures, clinical presentation and diagnostic tests, please refer to the CDC website at:

<http://www.cdc.gov/vaccines/vpd-vac/measles/default.htm>.

The NYSDOH Measles Fact Sheet is available online at:

http://www.nyhealth.gov/diseases/communicable/measles/fact_sheet.htm

Destination specific travel immunization information is available on the Centers for Disease Control and Prevention's Travelers' Health website at:

wwwnc.cdc.gov/travel/destinations/list.aspx.

Measles, United States, January-May 20, 2011, Early Release, May 24, 2011, [Morbidity and Mortality Weekly Report \(MMWR\)](#):

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm60e0524a1.htm?s_cid=mm60e0524a1_w

For further information, please contact your local health department, the New York State Department of Health, Bureau of Immunization at 518-473-4437, or the New York City Department of Health and Mental Hygiene at 212-676-2323.