

February 12, 2014

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

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

HEALTH ADVISORY: FOUR IMPORTED CASES OF MEASLES IN NEW YORK STATE WITH RECENT TRAVEL

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, Primary Care Providers and all patient care areas.

SUMMARY

- Albany, Monroe, Rensselaer and Rockland Counties have each reported one confirmed case of measles disease in individuals who have recently traveled internationally and cross-country. The international travel included the Philippines and the Republic of Georgia both of which are experiencing large measles outbreaks. Three of the cases were unvaccinated.
- All travelers, of any age, with destinations outside the United States (U.S.) should be up to date on their immunizations prior to travel. Measles outbreaks are common outside of the U.S., 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 MMR vaccine prior to travel.** Additionally, all providers should encourage travelers to be age appropriately vaccinated.
- Providers and hospital personnel should increase their index of suspicion for measles in patients presenting with rash and fever illness, especially those who have recently traveled. **Any suspected case of measles should be promptly triaged, placed on airborne precautions and reported immediately to the local health department (LHD) where the patient resides.** LHDs should notify the New York State Department of Health (NYSDOH) regional office or Bureau of Immunization to arrange for appropriate testing for confirmation.
- Secondary cases of measles have been associated with lack of appropriate triage and isolation in physician's office, at emergency rooms and on hospital wards.
- Immunization within 72 hours of exposure may prevent or modify illness. Vaccination beyond 72 hours of exposure may not prevent disease, but will protect against future exposures.
- Individuals who are at risk for severe disease and complications from measles (e.g., infants aged <12 months, pregnant women without evidence of measles immunity, and severely immunocompromised persons) should receive Immune Globulin (IG) within 6 days of exposure.

- In 2013, a total of 189 cases of measles were reported in the U.S. of which 98% resulted from international travel and 92% of these cases were unvaccinated or had unknown vaccination history.
- The increased numbers of measles outbreaks, due to measles importation into the U. S., underscore the ongoing risk for measles among unvaccinated persons and the importance of vaccination against measles. These exposures put non-immune individuals at risk for becoming infected, particularly young children and immunocompromised individuals, both of whom are at highest risk for severe complications.

BACKGROUND

- On February 1, 2014 the NYSDOH was notified by Rensselaer County of a case of measles in an unvaccinated college student that developed after cross-country travel. The case of measles was confirmed by viral and serologic testing at Wadsworth Center. Control measures have included college, hospital and community notifications by press release as well as post exposure prophylaxis (PEP) to susceptible contacts. No additional cases have been reported to date.
- On February 4, 2014 an Albany County medical facility requested testing at the Wadsworth Center for measles on an unvaccinated 1 year old child who recently returned from the Philippines. The serologic and viral tests confirmed measles disease. Albany County is investigating exposures at a private medical practice and the medical facility. Susceptible persons, who were potentially exposed, have been notified and a press release issued. No additional cases have been reported to date.
- On February 7, 2014, Rockland County was notified of a 1 year old unvaccinated child who was exposed to measles while visiting the Philippines. The child developed measles symptoms on January 27, 2014. Due to the late notification, there was very limited PEP provided and all susceptible exposures at a local medical office have been notified and isolated for 21 days after their exposure date. Rockland County also did a provider notification and press release in response to community exposures. These notifications were shared with surrounding counties. No additional cases have been reported to date.
- On February 7, 2014, Monroe County was notified of a case of measles in a college student who recently returned from the Republic of Georgia. The student reported receiving 2 measles containing vaccines in his home country. A local medical facility and college are completing contact investigations and notifications. Monroe County is issuing a press release and providing guidance on control measures for susceptible persons including exclusion and isolation. No additional cases have been reported to date.
- The Centers for Disease Control and Prevention (CDC) Quarantine Office has been consulted and no measles disease was reported to date on any of the flights involved with these 4 cases. None of NYS cases were infectious while traveling.
- The NYSDOH and the counties involved are completing contact investigations and providing enhanced surveillance through February 22, 2014.

MEASLES EPIDEMIOLOGY

Measles can be severe and is highly infectious; following exposure, up to 90% of susceptible persons develop measles. It is spread by airborne contact with an infected person 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 of 7 to 18 days. Persons with measles are infectious from 4 days before to 4 days after rash onset.

CLINICAL FEATURES

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.

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. If possible, any procedures required for the patient should be performed in the patient's room or delayed until the patient is no longer infectious.

LABORATORY TESTING

Serology and viral specimens (urine or nasal-pharyngeal swab or urine) should be obtained for diagnostic testing and confirmation. Use of commercial laboratories for measles testing may take up to a week to obtain results. Reporting suspected cases of measles enables access to rapid testing through the NYS Wadsworth Center Laboratory. Viral specimens that result in a positive PCR or culture will be forwarded to 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 those contacts younger than 1 year of age, pregnant women and/or 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 and the second at least 28 days later (typically at age 4–6 years or before beginning kindergarten).

Children ≥ 12 months, adolescents, and adults

- All children should receive an MMR vaccine at 12–15 months of age. The second dose of MMR is routinely administered at age 4–6 years, but may be administered as soon as 28 days after the first dose. Children over one year of age who have received one dose of MMR vaccine and who have recently been exposed to measles infection or are planning travel outside the United States should receive a second dose as soon as possible, as long as 28 days have passed since the first dose. Second doses of MMR are valid so long as they are administered after 12 months of age and at least 28 days after the first dose was administered.
- Anyone who has received two valid doses of MMR, or other live measles-containing vaccine, is considered immune to measles.
- Documentation of 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.

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/pubs/surv-manual/chpt07-measles.html>

The NYSDOH Outbreak Control Manual is available at:

http://www.health.ny.gov/prevention/immunization/providers/outbreak_control_guidelines.htm

The NYSDOH Measles Fact Sheet is available 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:

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

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 347-396-2400.