NEW YORK STATE OF OPPORTUNITY. Department of Health

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To: Health Care Providers, Hospitals, Emergency Departments, and Local Health Departments
From: New York State Department of Health, Bureau of Immunization

HEALTH ADVISORY: MEASLES EXPOSURES IN NEW YORK STATE

Please distribute to the Chief Medical Officer, Infection Control Department, Infectious Disease Department, Pediatric Department, Director of Nursing, Emergency Department, Primary Care Clinics, and all patient care areas.

SUMMARY:

- Wyoming County is reporting 5 cases of measles in members of the Mennonite community.
- The index case has not travelled outside of Wyoming County and the source of measles for the index case is unknown. This means that measles may be circulating in Wyoming County.
- Health care providers need to maintain a high index of suspicion for measles in anyone who presents with fever and rash. In addition, please be certain to ask about possible measles exposures for those who present with fever, cough, conjunctivitis and coryza.
- Health care providers should offer measles, mumps and rubella (MMR) vaccine to anyone who is eligible. **All healthcare providers** should:
    - Offer MMR vaccine at the earliest opportunity to all eligible patients 12 months and older who have no evidence of measles immunity as defined below, and
    - Offer a second dose to anyone 4 years and older without contraindications who has one MMR, as long as 28 days have passed since the first dose.

RECOMMENDATIONS FOR HEALTH CARE PROVIDERS

- **Providers should remain vigilant for persons presenting with rash and fever,** particularly among people who reside in or have spent time in areas experiencing measles outbreaks, have recently traveled internationally, or who were exposed to a person with febrile rash illness.
- To expedite public health containment strategies, providers should implement appropriate infection control measures, including airborne isolation, when measles is suspected (see below).
- As a reminder, while confirmed or suspected cases of communicable diseases are required to be reported no later than 24 hours from the time the case is first seen by the physician, certain communicable diseases, such as measles, require prompt attention and should be reported by phone immediately to the local health department (LHD) where the patient resides.
- Additionally, **healthcare providers in the affected communities** can:
    - Offer a second dose of MMR vaccine to eligible patients aged 1-3 years without contraindications who have previously received one dose. The second dose must

be given a minimum of 28 days after the first dose.
    - Offer a dose of MMR vaccine to infants 6-11 months of age without contraindications. This dose will not count toward the routine 2-dose schedule. Child will need to be revaccinated at 12-15 months of age and again at 4-6 years of age for a total of 3 doses.
    - Report all doses of MMR vaccine, both historical doses and those recently administered to patients, particularly children being excluded from school due to lack of measles immunity, to the New York State Immunization Information System (NYSIIS). Many schools rely on NYSIIS records to document vaccine receipt. Although Public Health Law Section 2168 requires NYSIIS reporting within 14 days of vaccine administration, reporting doses administered to students being excluded from school within 24 hours of vaccine administration and ensuring all historical doses have been documented in NYSIIS in a timely manner will assist in the child's prompt return to school.
- **Hospitals in the impacted counties** are asked to not permit visitation by persons displaying symptoms of measles, to any location in the hospital, particularly areas caring for the most vulnerable patients, such as the newborn nursery or the Intensive Care Unit.
    - Signage explaining these visitation restrictions should be displayed at all hospital entrances and at entrances to all units that treat the facility's most vulnerable patients.

MEASLES EPIDEMIOLOGY

Measles can be severe and is highly infectious; following exposure, up to 90% of susceptible persons develop measles. It is spread by the airborne route, when an infected person coughs and or sneezes. Measles virus can remain active and contagious for up to 2 hours in the air or on surfaces. The time from exposure to rash onset averages 14 days with a range of 7 to 21 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 5-6 days. It usually starts on the face and proceeds down the body to involve the extremities last and may include 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 spots (punctate blue-white spots on the bright red background of the buccal mucosa) may be present, often before the rash develops, 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. In NYS, confirmed or suspected cases of communicable diseases are required to be reported no later than 24 hours from the time the case is first seen by the physician, however, 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 healthcare 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. **If a suspect measles case, being evaluated as an outpatient, needs to be sent to a hospital emergency room, the emergency room should be notified ahead so that appropriate infection control precautions can be implemented upon arrival.**

LABORATORY TESTING

Viral specimens (throat or nasal-pharyngeal swab and urine) and serology (IgM and IgG) 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.** The LHD can assist in arranging testing at the Wadsworth Center Laboratory. Viral specimens that result in a positive PCR or culture will be forwarded to CDC for confirmation and genotyping. Call your LHD before shipping specimens.

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 who are ineligible to receive MMR vaccination, particularly those contacts younger than 6 months 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 IMMUNITY

Acceptable presumptive evidence of immunity to measles includes:

- Born prior to 1957; or
- **Written documentation from a health care provider or an official record** of age-appropriate vaccination with 2 doses of measles containing vaccine separated by at least 28 days for school-aged children (grades K-12) and adults at high risk for exposure and or transmission (i.e., healthcare personnel, students at post-high school educational institutions, and international travelers); or
- **Written documentation** of age-appropriate vaccination (i.e., aged ≥ 12 months) with at least 1 dose of measles-containing vaccine for preschool-aged children and adults who are not considered high risk; or
- Laboratory evidence of immunity; or
- Laboratory confirmation of disease.

MEASLES VACCINE RECOMMENDATIONS

(Note: For areas where measles disease transmission is occurring, please refer to the guidance provided above)

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 typically before entering kindergarten but may be administered as soon as 28 days after the first dose. **Vaccination should be provided at the earliest opportunity** based on the ACIP recommended schedule.

- **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 U.S. 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 as long as they are administered after 12 months of age and at least 28 days after the first dose was administered.

- Anyone who lacks proof of measles immunity, as defined above, should receive at least one dose of MMR vaccine. Two appropriately spaced doses of MMR vaccine are recommended for health-care personnel, college students, and international travelers.

- Measles remains a common disease in many parts of the world and is introduced into the United States through frequent international travel. There are ongoing measles outbreaks occurring in multiple countries in South America, Europe, Asia, and Africa. Healthcare providers should ensure that all patients are up-to-date with age appropriate MMR (measles, mumps, rubella) vaccination. **Providers should offer MMR vaccine to patients without documentation of vaccination or other evidence of measles immunity. This is important to provide protection from potential future exposure.**

Children 6–11 months of age who are traveling outside the U.S.

- Should receive one 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).

RESOURCES:

Contact Information:

- County Health Department contact information: http://www.nysacho.org/i4a/pages/index.cfm?pageid=37
- New York State Department of Health, Bureau of Immunization: 518-473-4437

Additional Information:

- Complete information on MMR vaccine recommendations: http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf
- 2018 Immunization Schedules: http://www.cdc.gov/vaccines/schedules/
- The NYSDOH Measles Fact Sheet is available at: http://www.health.ny.gov/diseases/communicable/measles/fact_sheet.htm
- Destination specific travel immunization information is available on the CDC's Travelers' Health website at: http://wwwnc.cdc.gov/travel/destinations/list
- 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
- CDC Measles Cases and Outbreaks: http://www.cdc.gov/measles/cases-outbreaks.html
- CDC Measles Elimination: http://www.cdc.gov/measles/about/faqs.html#measleselimination
- Measles photos: http://www.immunize.org/photos/measles-photos.asp