November 5, 2018

ALERT # 39: Update on Measles Outbreak in New York City in the Orthodox Jewish Community

Distribute to All Primary Care, Infectious Disease, Emergency Medicine, Internal Medicine, Pediatrics, Family Medicine, Laboratory Medicine, and Infection Control Staff

1) A total of 17 individuals with measles have been confirmed in October in the Orthodox Jewish communities of Williamsburg and Borough Park in Brooklyn.
2) Three individuals were children unvaccinated prior to exposure who acquired infection while traveling in Israel.
3) Screen for rash with fever at the point of entry of a healthcare facility and immediately institute airborne precautions to prevent healthcare-associated exposures.
4) Report all patients with suspected measles immediately to the Health Department. Do not wait for laboratory confirmation.
5) Collect specimens on all patients with suspected measles for testing at the Health Department’s Public Health Laboratory.
6) Healthcare providers caring for the Orthodox Jewish community in Brooklyn should actively recall for MMR vaccination all patients aged 12 months and older who are unvaccinated. The second dose of MMR may be given earlier than age 4 years when the child is in the office, provided it has been at least 28 days since a previous dose of MMR, varicella or live intranasal influenza vaccine.
7) Ask about planned travel. Vaccinate infants aged 6 to 11 months and all unvaccinated individuals (or ‘children and adults’) 12 months of age and older with MMR prior to international travel.

Dear Colleagues,

Seventeen individuals confirmed with measles have been reported to the New York City (NYC) Department of Health and Mental Hygiene (DOHMH) this month. All individuals are members of the Orthodox Jewish community in Williamsburg (thirteen individuals) and Borough Park (four individuals) in Brooklyn. A significant number of exposures occurred and additional persons with measles are expected to be identified. Individuals ranged in age from 11 months to 4 years. Fourteen of the individuals were unvaccinated prior to exposure, including twelve because vaccination was delayed. Two individuals were too young to have received MMR. Three children had received one dose of MMR prior to exposure. Serious complications include one child who was hospitalized with pneumonia and another child, 3 children with otitis media and 2 children with diarrhea. Three children acquired measles while visiting Israel, where a large outbreak is currently occurring. The initial child developed a rash on September 30th and the most recent case had rash onset on October 30th. Additionally, there have been more than 40 confirmed individuals with measles among New York State residents outside of NYC.
Measles is one of the most contagious infectious diseases. Even one person with measles puts non-immune individuals at risk for becoming infected, particularly young children, the immunocompromised, and non-immune pregnant women, all of whom are at highest risk for severe complications.

**Transmission and Infection Control**
A large number of exposures continue to occur in healthcare facilities including in emergency departments, an inpatient facility and numerous outpatient clinic settings. 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. **It is imperative that all patients are screened for rash with fever at the point of entry of a healthcare facility and immediately be placed in negative pressure rooms for airborne precautions to prevent exposures.** Providers in the affected communities should pre-screen patients when they call for appointments and prior to entering your facility; this is critical to avoiding exposures. Posters should be placed at your entrance to prevent people with rash from entering. Additional guidance and resources for providers, including posters, can be found at: [www1.nyc.gov/site/doh/providers/health-topics/measles.page](http://www1.nyc.gov/site/doh/providers/health-topics/measles.page). If a negative pressure room is not available, place the patient with suspected measles in an exam room with a mask and do not use that room for 2 hours after the patient has left; note however that in the absence of a negative pressure room, patients in your facility are still considered exposed. Any unvaccinated patient aged 6 months and older in your facility from the time a patient with suspected measles arrives through two hours after they leave should be vaccinated **BEFORE** they leave your facility; this will avoid the need for you to recall non-immune patients urgently for prophylaxis.

Parents of ill children should keep them home and they should not attend daycare or school. If there is measles in a student of a daycare or school, all unvaccinated children, including those with a medical or religious exemption, will be excluded and will be unable to attend the daycare or school for 21 days after their last exposure.

Detailed information on the clinical presentation, laboratory testing, evidence of immunity, travel recommendation and treatment was previously included in the Alert sent on 10/17/18, available at: [https://www1.nyc.gov/site/doh/providers/health-topics/measles.page](https://www1.nyc.gov/site/doh/providers/health-topics/measles.page).

**Clinical Presentation**
Always consider measles when evaluating patients with fever and rash. Measles typically presents in adults and children as an acute viral illness characterized by fever and generalized maculopapular rash. The prodrome may include cough, coryza, and conjunctivitis. The classic rash usually starts on the face, proceeds down the body, and may include the palms and soles, and appears discrete but may become confluent.

**Reporting**
Persons suspected to have measles should be reported **IMMEDIATELY** to the Department of Health and Mental Hygiene (DOHMH) at 866-692-3641. **Reports should be made at time of initial clinical suspicion. Do not wait for laboratory confirmation to report.** If you are considering the diagnosis of measles and are ordering diagnostic testing, then you should report the individual at that time.
Laboratory Testing
Collect venipuncture blood for measles IgM and IgG, and a nasopharyngeal or throat swab for measles PCR. When you call DOHMH to report the patient suspected to have measles, we will arrange pick-up and transport of the specimens to the DOHMH laboratory. Collect blood in serum separator tubes (red, red-speckled, or gold-top tops), and if possible, centrifuge and separate. Swabs should be synthetic (non-cotton) in liquid, viral transport media. Refrigerate specimens after collection and transport on ice.

Post-exposure Prophylaxis
Non-immune individuals aged 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. Persons who received 1 dose of measles-containing vaccine 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 nonimmune individuals who are exposed to measles and at high-risk for complications, including: infants aged <6 months, infants aged 6 to 12 months who did not receive MMR within 72 hours of exposure, pregnant women who are not immune to measles, and severely immunocompromised persons, regardless of immunologic or vaccination status because they might not be protected by MMR vaccine. IG should be given as soon as possible and no later than 6 days after exposure to prevent or modify measles. Providers in the affected communities can order intramuscular IG directly from the manufacturer (ASD at 800-746-6273 or BDIPharma at 800-948-9834) to have available in case of an exposure to measles.

Exposed people who are not immune to measles and who do not receive post-exposure prophylaxis must stay home through 21 days after last exposure, during the time that they are at risk for getting sick and being contagious. Because IG prolongs the incubation period, people who receive IG must stay home through 28 days after last exposure.

For providers enrolled in the Vaccines for Children (VFC) program serving the Orthodox Jewish community, please make sure you have an adequate supply of MMR vaccine on hand. If you need more vaccine, place your order through the On-line Registry as you normally do. If you need an expedited shipment or need assistance with ordering MMR vaccine, please call 347-396-2405 or e-mail nycimmunize@health.nyc.gov.

For immediate consultation regarding a patient, you can also call 347-396-2402 during business hours. For more information, visit www.nyc.gov/health and search for “measles.” As always, your cooperation is appreciated.

Sincerely,

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Director, Epidemiology and Surveillance        Assistant Commissioner
Bureau of Immunization        Bureau of Immunization