May 6, 2019

Dear Colleague:

In light of the current measles outbreak in New York City (NYC), involving 423 confirmed cases as of April 29, 2019, resulting in over 13,000 exposures and at least 14 cases with presumed nosocomial transmission, the NYC Department of Health and Mental Hygiene (DOHMH) is sending this letter as a reminder of **the importance of ensuring measles immunity of all healthcare personnel (HCP) working in a medical facility**.

HCP include not only physicians, nurses, and emergency department personnel, but also other personnel (including contractors) who work within a health care facility and who have contact with patients or materials used by patients, such as housekeeping, security guards, ambulance staff and clerical workers. According to New York State regulations, health care facilities are responsible for ensuring immunity among all HCP.

Definition of immunity. To be considered immune to measles in the context of an outbreak, such as the current one in NYC, HCP must show **one** of the following:

- Written documentation of vaccination (i.e., two doses of live virus measles vaccine [e.g., measles-mumps-rubella {MMR} vaccine] administered at least 28 days apart, with the first dose given at an age ≥1 year); or
- Laboratory evidence of immunity as indicated by a positive measles IgG titer (serologic testing); **or**
- Laboratory confirmation of prior measles virus infection.
- Birth before January 1, 1957

Although the majority of persons born before 1957 are likely to have had measles as a child and are presumed immune, in the context of the current outbreak, we strongly recommend that HCP born before 1957 have serologic testing or get vaccinated with two doses of live virus measles-containing vaccine.

Serologic testing is *not* **required or recommended to routinely confirm immunity for HCP** who have documentation of having received two doses of live virus measlescontaining vaccine. HCP with one documented live virus measles vaccine should receive a second dose.

Post-exposure prophylaxis and exclusion from work. HCP with a known exposure to a patient with measles and *unknown* immunity or *negative serology*, should be evaluated immediately. If the HCP has unknown measles immunity, obtain a stat IgG. HCP with one dose of a measles-containing vaccine should receive a second MMR vaccine. Post-exposure prophylaxis (PEP) with immune globulin should be administered if indicated according to <u>this guidance</u>. All non-immune HCP exposed to measles should be excluded

from work, regardless of whether they receive appropriate post-exposure MMR prophylaxis, through 21 days post-exposure, in accordance with Advisory Committee on Immunization Practices (ACIP) recommendations. While the ACIP and the New York State Department of Health consider HCP with two documented doses of live virus measles vaccine yet a negative titer to be immune, in the setting of a known measles virus exposure, the DOHMH recommends that such HCP be considered non-immune and excluded from work. This is because 3% of persons receiving two doses of live virus measles containing vaccine do not develop protective levels of antibodies. Following the 21-day home quarantine period, non-immune HCPs should receive MMR vaccine and no further IgG titers should be checked.

Measles education. In addition, HCP should be educated about the symptoms of measles and immediately notify their employer if they develop symptoms suggestive of measles. Measles is characterized by a prodrome of fever and malaise, cough, coryza, and conjunctivitis followed by a maculopapular rash. Patients are considered to be contagious from 4 days before to 4 days after the rash appears (with date of onset as day zero). Of note, sometimes immunocompromised patients do not develop the rash.

Reporting. HCPs with signs and symptoms of measles and travel or any potential exposures should advise their supervisor *immediately* and be evaluated for measles and excluded from work until the measles diagnosis is either confirmed or ruled out. If measles is confirmed, they should be excluded from work through 4 days after rash onset. Additionally, *all* suspected cases of measles in any person, including HCP, should be reported immediately to the DOHMH [347-396-2402 or 866-692-3641]. Reports should be made at time of initial clinical suspicion. Do not wait for laboratory confirmation to report.

Ensuring measles immunity is essential to protecting all HCP, to preventing nosocomial transmission of measles to patients, and to controlling this current outbreak. We thank you in advance for your continued commitment to protecting the health of all New Yorkers through the promotion of measles immunity and education for all health care personnel.

Sincerely,

Jane R. Zucker, MD, MSc Assistant Commissioner

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Bureau of Immunization