DELAWARE HEALTH ALERT #508: Measles Exposure at Delaware Health Care Facility and Global Measles Outbreaks

Adapted from https://emergency.cdc.gov/han/2023/han00488.asp.

Summary

The Delaware Division of Public Health (DPH) is issuing this Health Alert Network (HAN) Health Advisory to notify clinicians of potential exposures to a confirmed measles case in a Delaware health care facility. On January 5, 2024, the Philadelphia Department of Public Health identified a confirmed case of measles in an unvaccinated individual. While infectious, the individual sought care at a health care facility in Delaware on December 29, 2023. DPH has identified and contacted the identified individuals at risk for Measles infection through ongoing efforts in partnership with the health care facility. This Health Advisory also highlights other recent large global measles outbreaks and associated U.S. importations, and the importance of early recognition, diagnosis, and appropriate treatment. CDC recommends that clinicians be on alert for cases of measles that meet the case definition.

Background

Measles is a highly contagious, acute viral illness that begins with a prodrome of fever, cough, coryza (runny nose), and conjunctivitis (pink eye), lasting two to four days prior to rash onset. The rash typically occurs three to five days after symptoms begin and usually appears on the face and spreads downward. Measles can cause severe health complications, including pneumonia, encephalitis, and death. The virus is transmitted by direct contact with infectious droplets or by airborne spread when an infected person breathes, coughs, or sneezes. Measles virus can remain infectious in the air and on surfaces for up to two hours after an infected person leaves an area. Infected people are contagious from four days before the rash starts through four days afterwards. The incubation period for measles from exposure to fever is usually about 10 days (range, seven to 12 days), and from exposure to rash onset is usually about 14 days (range, seven to 21 days).

With declines in measles vaccination rates globally during the COVID-19 pandemic, measles outbreaks are occurring in all World Health Organization (WHO) Regions. Large outbreaks (≥20 reported measles cases per million population over a period of 12 months) have been reported in the European, African, Eastern Mediterranean, and Southeast Asian Regions. The United States has seen an increase in measles cases from 49 in 2021 to 121 in 2022, all among children who weren't fully vaccinated, including outbreaks in Minnesota and Ohio.
Recommendations for Health care Professionals

- Consider measles as a diagnosis in anyone with a febrile illness and clinically compatible symptoms (e.g., rash, cough, coryza, or conjunctivitis) who has recently traveled abroad, especially to countries with ongoing outbreaks.
- Immediately notify DPH about any suspected case of measles to ensure rapid testing and investigation.
- Recommend MMR vaccine for patients who are unvaccinated or not fully vaccinated.
- Do not allow patients with suspected measles to remain in the waiting room or other common areas of the health care facility; isolate patients with suspected measles immediately, ideally in a single-patient airborne infection isolation room (AIIR) if available.

- Follow CDC's testing recommendations and collect either a nasopharyngeal swab, throat swab, or urine specimen for Reverse Transcription Polymerase Chain Reaction (RT-PCR) as well as a blood specimen for serology from all patients with clinical features compatible with measles. RT-PCR is available at many state public health laboratories and through the APHL/CDC Vaccine Preventable Disease Reference Centers
- Ensure all patients are up to date on MMR vaccine and other recommended vaccines.
- For people traveling abroad, CDC recommends that all U.S. residents older than six months be protected from measles and receive MMR vaccine, if needed, prior to departure.
- ***If you suspect patient exposure*****,** provide protection or modify the clinical course of disease among susceptible people, either administer MMR vaccine within 72 hours of initial measles exposure, or immunoglobulin (IG) within six days of exposure. For vaccine eligible people aged ≥12 months exposed to measles, administration of MMR vaccine is preferable to using IG, if administered within 72 hours of initial exposure. The following patient groups are at risk for severe disease and complications from measles and should receive IG: infants aged <12 months, pregnant women without evidence of measles immunity, and severely immunocompromised people. IG can be administered to other people who do not have evidence of measles immunity, but priority should be given to people exposed in settings with intense, prolonged, close contact (e.g., household, daycare, and classroom). Do not administer MMR vaccine and IG simultaneously, as this practice invalidates the vaccine.

Testing for measles

- **Real-time RT-PCR (rRT-PCR):** Nasopharyngeal or throat swabs for PCR testing are preferred over urine specimens.
- **Measles Serology:** Collect the first (acute-phase) serum specimen (IgM and IgG) as soon as possible upon suspicion of measles disease. If the acute-phase serum specimen collected ≤3 days after rash onset is negative and the case has a negative result for real-time RT-PCR (rRT-PCR), or one was not done, a second serum specimen collected three to 10 days after symptom onset is recommended because the IgM response may not be detectable until 3 days after symptom onset.
- HCP should use respiratory protection (i.e., a respirator), that is at least as protective as a fit-tested, NIOSH-certified disposable N95 filtering facepiece respirator, regardless of presumptive evidence of immunity, upon entry to the room or care area of a patient with known or suspected measles.
- Contact DPH to determine where to submit specimens and how to ship them.

Reporting

Delaware physicians, laboratories, and other health care providers are required by regulations to report patients with Measles to the Office of Infectious Disease Epidemiology (OIDE). Reporting enables appropriate public health follow-up for your patients, helps identify outbreaks, and provides a better understanding of disease trends in Delaware. Cases can be reported to the DPH Office of Infectious Disease Epidemiology (OIDE) by calling 302-744-4990 (normal business hours) or 1-888-295-5156 (outside of normal business hours). You may also complete a Notifiable Disease Report PDF Form and fax the form to DPH at 302-622-4149 or email to mailto:reportdisease@delaware.gov, The form can be found online at: https://dhss.delaware.gov/dhss/dph/dpc/rptdisease.html

For More Information

- For Health care Professionals – Diagnosing and Treating Measles | CDC
- Interim Measles Infection Prevention Recommendations in Health care Settings | CDC
- Measles – Vaccine Preventable Diseases Surveillance Manual | CDC
- Plan for Travel – Measles | CDC
- Measles Lab Tools | CDC
- Measles Serology | CDC
- Measles Specimen Collection, Storage, and Shipment | CDC