DATE: February 5, 2024

TO: All Ambulatory/Primary Care Providers, Emergency Department Providers, Urgent Care Center Providers

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We have been notified by Montgomery County about a confirmed measles case in an unvaccinated individual. The local health department is working to identify potentially exposed individuals who may be eligible for vaccination or require quarantine.

Background
Measles is a highly contagious virus that can be transmitted via airborne, droplet or direct contact with secretions of an infected person. The average incubation for measles is 14 days (range 7-21 days).

Clinical Presentation
Measles has a characteristic prodrome of fever, cough, coryza, and conjunctivitis followed by a generalized cranial to caudal maculopapular rash that appears 3-5 days after symptoms. Rash in the absence of fever and preceding respiratory symptoms is rare. Note that the rash may be less erythematous on darker skin.

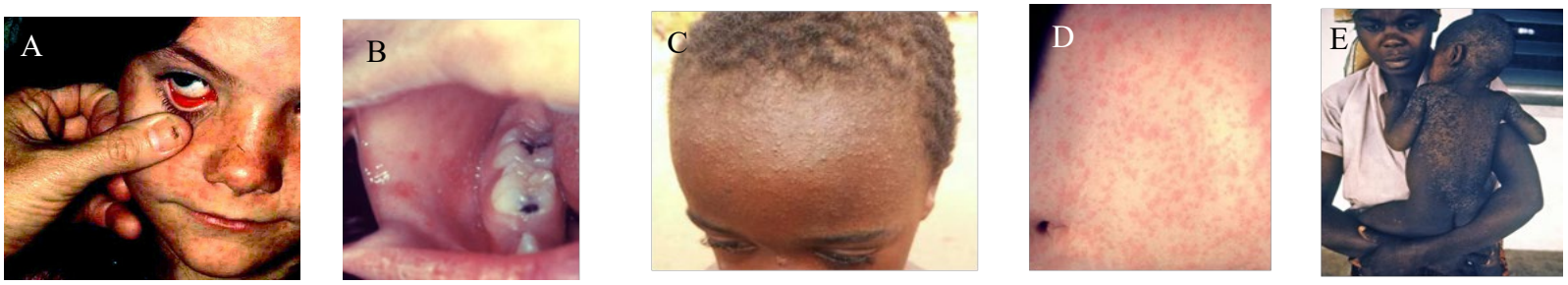

Figure 1.A. Early rash and conjunctivitis, B. Koplik spots in early measles C. Rash in young child with measles, D. Rash three days after onset, E. Skin sloughing with recovery
Source: World Health Organization, Centers for Disease Control & Prevention, Red Book

Diagnosis
Measles is confirmed through IgM antibody of the serum and/or real-time PCR (RT-PCR) of the nasopharynx or throat. If chosen, PCR must be sent within 3 days of rash onset. IgM may be negative if obtained within the first 72 hours of rash onset; consider repeating if there is a high clinical index of suspicion for measles. Do NOT send patients to urgent cares or EDs for testing only. Notify the facility beforehand to avoid exposing others within waiting rooms. For PCR, submit throat or nasopharyngeal swabs collected with a Dacron tip and an aluminum or plastic shaft. Submit swabs in 2-3 mL viral transport media. Swabs must be maintained at 4 C (39.2 F) and shipped on cold packs within 24 hours of sample collection. Swabs can be sent to the state health department lab if approved by local health department epidemiologist on call OR to a local lab (this is a miscellaneous/other send out test at CCHMC).

Differential Diagnosis
The risk of measles is LOW in a vaccinated child. Other etiologies such be considered such as adenovirus, parvovirus B19, scarlet fever, Epstein Barr virus, Kawasaki disease, *Mycoplasma* infection, and drug eruptions.

Infection Prevention and Control

Unvaccinated, exposed individuals who were AT Terminal A of the Cincinnati/Northen Kentucky International Airport 1/27 – 1/29/24 or at Dayton Children's Hospital in the main campus Emergency Department 1/29 – 1/30/24 and did not receive MMR vaccine within 72 hours of exposure must quarantine for 21 days. Patients suspected of having measles (unvaccinated, clinical symptoms consistent with measles, history of exposure to measles case) should be placed in an airborne infection isolation room (Aii) with N-95 airborne isolation. In the ambulatory setting, room the patient immediately in a private room, keep the door closed, and encourage face mask use by the patient. Please notify Infection Prevention & Control and your local health department for any suspected measles cases (6-8492 or "Who's on Call").

Additional Resources:

- For Healthcare Professionals – Diagnosing and Treating Measles | CDC
- Interim Infection Prevention and Control Recommendations for Measles in Healthcare 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

This information is provided as a services of the Infection Prevention & Control Program at Cincinnati Children's Hospital Medical Center. Contact IP&C via phone (513-636-8492) or e-mail (infectioncontrolprogram@cchmc.org) with questions/concerns.