

Measles:

Michigan healthcare providers should consider measles in the initial differential diagnosis of patients who

- present with febrile rash illness and clinically compatible measles symptoms [cough, coryza (or runny nose) or conjunctivitis (pink eye)]
- recently traveled internationally or were exposed to someone who recently traveled
- have not been vaccinated against measles

Incubation: 13 days

Contagious: 5 days before the rash to 4 days after rash.

Prodrome Phase: fever, malaise, anorexia, followed by Conjunctivitis, Coryza, Cough. (usually last 3-4 days, up to 8 days).

Koplik's spots: 1-3 mm whitish/grayish/bluish elevations with an erythematous base, usually seen on the buccal mucosa opposite the molar teeth, but can cover labial mucosa and palate. "grains of salt on a red background". May coalesce and last 12-72 hours. These are pathognomonic for measles and occur 48 hours before the characteristic exanthema. The exanthema does not appear in all patients with measles.

Exanthem: maculopapular, blanching rash, beginning on face and spreading cephalocaudally and centrifugally (away from midline) to involve the neck, trunk, and extremities. The lesions may become confluent, esp where they start on the face. It may have some petechiae, and hemorrhagic in severe cases. The degree of confluence of the rash correlates with the severity of the illness in children. Palms and soles rarely involved.

Other features: Lymphadenopathy, high fever (peaks 2-3 days after appearance of rash), pronounced respiratory signs, including pharyngitis, nonpurulent conjunctivitis. Koplik's spots often slough when the exanthema appears.

Clinical improvement starts within 48 hours of the rash. After 3-4 days the rash darkens to a brownish color and begins to fade., followed by fine desquamation. The rash lasts 6-7 days.

Cough may persist for 1-2 weeks after the measles infection. Occurrence of fever beyond the 4th day of rash suggests a measles-associated complication.

Immunity to measles is usually lifelong. Reinfection is rare.

What to do:

- Promptly isolate patients to avoid disease transmission; measles is highly communicable.**
- Immediately report the suspect measles case to their health department.**
- Obtain specimens for testing from patients with suspected measles, including viral specimens - recommended specimens are 1) serum and 2) throat swab (place swab in viral transport media)**

Order: Measles IgG, IgM, + Viral swab

IgM is detectable 3 days after the appearance of the exanthem and undetectable 30 days after the exanthema.

Anti-Measles IgG is undetectable up to 7 days after rash onset and peaks about 14 days after the exanthema appears.

***Speak with infection control in presumed cases**