

ACEP FACT SHEET: MEASLES (RUBEOLA)

BRIEF DESCRIPTION

Measles (Rubeola - "Red Measles") is a very contagious (infecting up to 90% of susceptible people who are exposed), potentially severe and deadly viral infectious disease:



Measles is spread via the airborne route.



Patients are infectious up to 4 days before and 4 days after rash onset.



Measles virus remains infectious on surfaces and in the air for up to 2 hours after an infectious person leaves the area.



Covered by most health insurances, adults still do not require a booster shot if they're fully vaccinated with two doses of MMR.



Full term infants of vaccinated mothers are typically protected at birth by acquiring maternal antibodies.

PRESENTATION

Measles is characterized by a

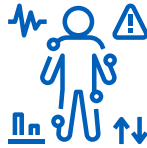


- Prodrome of fever (as high as 105°F) and
 - The classic symptoms include the three "C"s of cough, conjunctivitis ("red or injected eyes"), and coryza ("runny nose"). A pathognomonic enanthem (Koplik spots) in the oral cavity followed by a maculopapular rash, usually beginning on the face.
 - The rash usually appears about 14 days after a person is exposed; however, the incubation period ranges from 7 to 21 days.
 - The rash spreads from the head to the trunk to the lower extremities and will often involve the palms of the hands and soles of the feet.
 - The rash typically is raised, erythematous (red), but appears different dependent upon skin tone (For examples of rash on various skin types please see figure 2 from <https://pubmed.ncbi.nlm.nih.gov/37692196/>)
- A fever often precedes the three "C"s, but may not be experienced by those who are immunocompromised
- Patients are considered to be contagious from 4 days before to 4 days after the rash appears.
 - Immunocompromised patients do not always develop a rash.
- Early identification of suspected cases is important so the patients can be isolated for 4 days following appearance of the rash to minimize further spread.
- Measles is a reportable disease and should be reported to the local health department.

CLINICAL COURSE



Up to 3 in 10 measles patients may develop complications such as otitis media or diarrhea.



Most **common** complications are diarrhea and otitis media.

Most **severe** complications are Pneumonia and encephalitis.



The risk of complications increases for patients who are immunocompromised, pregnant, malnourished, and at the extremes of age.



Primarily supportive for fever and dehydration.



Monitor for a complication via lingering or worsening symptoms.



The current two dose MMR vaccine is more than 95% effective, and may reduce the severity of symptoms as well as spread to other people.

TREATMENT

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WHEN TO SEEK MEDICAL CARE

- Concerning dehydration, eye pain, shortness of breath, seizure, and altered mental status
- Consult your primary care clinic if you have questions about concerning or prolonged symptoms, suspected or known exposure, and the MMR vaccine

IMPLICATIONS FOR YOUR ED

Due to the high infectivity of this virus, potential measles patients must be immediately isolated and should not spend time in a general waiting area.

- Rapid triage and movement of a suspected measles case to a designated isolation room or isolation area is essential.
- Adhering to Standard and Airborne Precautions for patients with known or suspected measles
- Healthcare providers should have proof of measles immunity (see CDC guidelines for “proof” criteria) or should be re-immunized;
 - If unimmunized, receive two doses of MMR not less than 28 days apart.

For additional information see [CDC’s information on Interim Infection Prevention and Control Recommendations for Measles in Healthcare Settings](#)