

Measles Treatment Overview

Information for Healthcare Providers

Overview

- There is no specific antiviral therapy that is FDA-approved for management of measles.
- Medical care is generally supportive to help relieve symptoms.
- Vitamin A may be used under the supervision of a healthcare provider.
- Other therapies, such as antibiotics should be prescribed based on clinical judgement by an individual healthcare provider.

Measles Complications

- People at high risk for complications include infants and children aged <5 years, adults aged >20 years, pregnant women, people with weakened immune systems, such as from leukemia and HIV infection.
- Even in previously healthy people, measles can cause serious illness requiring hospitalization.
- Complications, such as pneumonia, encephalitis, and other infections, should be appropriately tested and treated.
- Measles infection may also be complicated by other infections, including viral pathogens and secondary bacterial infections.
- Common complications from measles include otitis media, bronchopneumonia, laryngotracheobronchitis, and diarrhea.

Vitamin A

- Vitamin A does not prevent measles and is not a substitute for vaccination.
- Vitamin A supplementation has been found to reduce both overall measles mortality and pneumonia-specific measles mortality in children living in areas with high rates of vitamin A deficiency. In the U.S., prevalence of vitamin A deficiency is very low.
- While the evidence for vitamin A is primarily in countries with a higher prevalence of vitamin A deficiency, vitamin A may be administered to infants and children in the United States with measles under the supervision of a healthcare provider as part of supportive management.
 - If vitamin A is recommended, it should be administered immediately upon diagnosis and repeated the next day for a total of 2 doses. The recommended age-specific daily doses are:
 - 50,000 IU for infants younger than 6 months of age
 - 100,000 IU for infants 6–11 months of age
 - 200,000 IU for children 12 months of age and older
- Overuse of vitamin A can lead to toxicity and cause damage to the liver, bones, central nervous system, and skin. Pregnant women should avoid taking high levels of vitamin A as it has been linked to severe birth defects.



Ribavirin

- Ribavirin is a broad-spectrum antiviral that has been used to treat other respiratory infections; ribavirin demonstrates *in vitro* activity against measles virus. While ribavirin has been used to treat patients with severe measles disease or severely immunocompromising conditions, clinical data are lacking regarding its efficacy.
- Ribavirin is not approved by the U.S. Food and Drug Administration (FDA) to treat measles. Oral ribavirin is available commercially and intravenous ribavirin is available only through an Emergency Investigational New Drug (EIND) application via FDA.

Antibiotics

- There is no evidence to support routine use of antibiotics for measles treatment.
- Measles may be complicated by secondary bacterial infections for which antibiotic treatment is indicated. Treatment decisions for infections should be based on the clinical assessment of a healthcare provider, taking into account type of infection, illness severity, and other patient factors.

Inhaled steroids

- Inhaled steroids may be indicated for patients with a history of reactive airway disease, and their use should be based on individual clinical decision making by a healthcare provider.

Isolation

- Infected people should be isolated for 4 days after they develop a rash; airborne precautions should be followed in healthcare settings.
- Because of the possibility (albeit low) of MMR vaccine failure in healthcare providers exposed to infected patients, providers should observe airborne precautions in caring for patients with measles.

Vaccination

- MMR vaccination is the best way to prevent measles and its complications.
- For those who cannot or prefer not to get vaccinated, risk of measles infection and severe illness during an outbreak is higher.
- Recognizing measles and getting appropriate medical care is important to help prevent spread of the virus and to prevent severe complications.
- People exposed to measles may be eligible for post-exposure prophylaxis with MMR vaccine within 72 hours (or immunoglobulin within 6 days).

