Cause

The measles virus, a paramyxovirus, genus *Morbillivirus*

Symptoms

Measles is an acute, highly communicable viral disease that begins with fever, with increasingly rising temperatures to 103° F or greater, conjunctivitis, runny nose, cough, and spots, called Koplik spots, on the mucosa of the mouth. A characteristic red, blotchy rash appears around the 3rd to 7th day of illness, beginning on the face and becoming generalized; it persists for 5-6 days, fading in order of appearance. Complications may include middle ear infection, pneumonia, or diarrhea, and less frequently, encephalitis (an inflammation of the brain).

Measles is in an increasingly rare infection in the United States because of childhood immunization against the disease. Since 2003, surveillance of the disease has shown that spread of the infection in the US has been effectively stopped. Although more than half of all countries now use measles vaccine, measles still remains a common disease in many parts of the world. An occurrence here in the US would generally be found in unvaccinated children or adults exposed to an infected person from another country.

Spread

Respiratory transmission, by droplets expelled during sneezing and coughing, or by direct contact with nasal and throat secretions of infected persons.

Incubation Period

10 to 12 days for beginning symptoms (prodrome), to 14 days for the rash (range 7 to 18 days)

Period of Communicability

From 1 – 2 days before the onset of the first cold-like symptoms until 4 days after the appearance of the rash.

Diagnosis

Clinical diagnosis based upon the presence of a generalized rash lasting > 3 days, a minimum temperature of 101° F, and cough, runny nose or conjunctivitis. Confirmation of the diagnosis may be made through serology or the isolation of virus from a clinical specimen.

Treatment

None. As vitamin A reserves fall rapidly during an infection, supplementation replaces body reserves, helping to prevent blindness and significantly reducing measles fatality. A physician should be consulted as to the appropriate amounts of vitamin to be taken.

Prevention/Control

1. Vaccination with MMR: Measles, Mumps and Rubella Vaccine
    a. Children and adults, per current immunization guidelines.
    b. Persons born before 1957 are generally considered to be immune to measles.
    c. All healthcare workers should be checked for immunity to measles and vaccinated per guidelines.
    d. Post-exposure: vaccine may prevent disease if given to unvaccinated persons within 72 hours.
2. Immune globulin (IG) may also prevent or modify disease and provide temporary protection if given within 6 days of exposure to immunocompromised persons or infants 6 to 12 months old.
3. Report all cases to the local health department.

Exclusion

Until 4 days after the rash appears.