

1. Measles is an acute viral disease characterized by fever, cough, coryza, and conjunctivitis, followed by a maculopapular rash beginning on the face and spreading cephalocaudally and centrifugally. During the prodromal period, a pathognomonic enanthema (Koplik spots) may be present. Complications include otitis media, bronchopneumonia, laryngotracheobronchitis (croup), and diarrhea and occur commonly in young children and immunocompromised hosts. Acute encephalitis often results in permanent brain damage and occurs in approximately 1 of every 1,000 cases. Case-fatality rates are increased in children younger than 5 years and immunocompromised children. Sometimes, the characteristic rash does not develop in immunocompromised patients. Subacute sclerosing panencephalitis (SSPE) is a rare degenerative central nervous system disease characterized by behavioral and intellectual deterioration and seizures. Widespread measles immunization has led to the virtual disappearance of SSPE in the United States. The only natural host of measles virus is humans. Measles is transmitted by direct contact with infectious droplets or, less commonly, by airborne spread. Measles is one of the most highly communicable of all infectious diseases. The childhood and adolescent immunization program in the United States has resulted in a greater than 99% decrease in the reported incidence of measles and interruption of endemic disease transmission since measles vaccine was first licensed in 1963. From 1989 to 1991, the incidence of measles in the United States increased because of low immunization rates in preschool-aged children, especially in urban areas. Following improved coverage in preschool-aged children and implementation of a routine second dose of measles-mumps-rubella vaccine for children, the incidence of measles declined to extremely low levels (<1 case per 1 million population). The number of measles outbreaks (23 cases linked in time and space) that occurred ranged from 2 to 16 per year. In the first half of 2014, 514 measles cases from 16 outbreaks were reported in 20 states. Forty-eight separate importations occurred; 81% were in unvaccinated people, 12% of those infected had an unknown vaccination status (78% of those were adults), and 7% of those infected were vaccinated (including 5% with 2 or more doses). Questions

2. Choose the correct statement.

- a. Koplik spots may develop during measles in all kinds of patients
- b. Koplik spots develop during measles only among adults
- c. Koplik spots develop during measles only among children
- d. Koplik spots develop during measles only among immunocompromised patients

3. Koplik spot is a symptom specific only to measles.

- a. False
- b. Not given
- c. True

4. Measles can result in a brain damage.

- a. False
- b. Not given
- c. True

5. The highest mortality from measles is among the newborns.

- a. Not given
- b. True
- c. False

6. The most common complication of measles is the otitis.

- a. Not given
- b. False
- c. True

7. What are the most common complications of measles?

- a. Respiratory complications
- b. Acute encephalitis and death
- c. Neurologic complications
- d. Otitis, bronchopneumonia, croup, diarrhoea

8. What categories of people most often have measles during measles outbreaks?

a. Vaccinated with only one dose

**b. Unvaccinated**

c. Elderly people

d. Adults

**9. What is subacute sclerosing panencephalitis (SSPE)?**

**a. A complication of measles that happens only in children**

b. A complication of measles that happens only in adults

c. A complication of measles that happens only in newborns

d. The disease that is often mistaken for measles

**10. What is the most common way of measles transmission?**

a. Oral

b. Contact

c. Airborne

**d. Droplet**