

Measles (Rubeola)

2013 Case Definition

CSTE Position Statement(s): 12-ID-07

Clinical Description

An acute illness characterized by:

- Generalized, maculopapular rash lasting ≥ 3 days; **and**
- Temperature $\geq 101^\circ\text{F}$ or 38.3°C ; **and**
- Cough, coryza, or conjunctivitis.

Case Classification

Probable

In the absence of a more likely diagnosis, an illness that meets the clinical description with:

- No epidemiologic linkage to a confirmed case of measles; **and**
- Noncontributory or no measles laboratory testing.

Confirmed

An acute febrile rash illness[†] with:

- Isolation of measles virus[‡] from a clinical specimen; or
- Detection of measles-virus specific nucleic acid[‡] from a clinical specimen using polymerase chain reaction; or
- IgG seroconversion[‡] or a significant rise in measles immunoglobulin G antibody[‡] using any evaluated and validated method; or
- A positive serologic test for measles immunoglobulin M antibody[‡] §; or
- Direct epidemiologic linkage to a case confirmed by one of the methods above.

[†] Temperature does not need to reach $\geq 101^\circ\text{F}/38.3^\circ\text{C}$ and rash does not need to last ≥ 3 days.

[‡] Not explained by MMR vaccination during the previous 6-45 days.

§ Not otherwise ruled out by other confirmatory testing or more specific measles testing in a public health laboratory.

Case Classification Comment(s)

CDC does not request or accept reports of suspect cases so this category is no longer needed for national reporting purposes.

Epidemiologic Classification

Internationally imported case: An internationally imported case is defined as a case in which measles results from exposure to measles virus outside the United States as evidenced by at least some of the exposure period (7–21 days before rash onset) occurring outside the United States and rash onset occurring within 21 days of entering the United States and there is no known exposure to measles in the U.S. during that time. All other cases are considered U.S.-acquired.

U.S.-acquired case: An U.S.-acquired case is defined as a case in which the patient had not been outside the United States during the 21 days before rash onset or was known to have been exposed to measles within the United States.

U.S.-acquired cases are subclassified into four mutually exclusive groups:

- **Import-linked case:** Any case in a chain of transmission that is epidemiologically linked to an internationally imported case.
- **Imported-virus case:** A case for which an epidemiologic link to an internationally imported case was not identified, but for which viral genetic evidence indicates an imported measles genotype, i.e., a genotype that is not occurring within the United States in a pattern indicative of endemic transmission. An endemic genotype is the genotype of any measles virus that occurs in an endemic chain of transmission (i.e., lasting ≥ 12 months). Any genotype that is found repeatedly in U.S.-acquired cases should be thoroughly investigated as a potential endemic genotype, especially if the cases are closely related in time or location.
- **Endemic case:** A case for which epidemiological or virological evidence indicates an endemic chain of transmission. Endemic transmission is defined as a chain of measles virus transmission that is continuous for ≥ 12 months within the United States.

Epidemiologic Classification, continued

- **Unknown source case:** A case for which an epidemiological or virological link to importation or to endemic transmission within the U.S. cannot be established after a thorough investigation. These cases must be carefully assessed epidemiologically to assure that they do not represent a sustained U.S.-acquired chain of transmission or an endemic chain of transmission within the U.S.

Note: Internationally imported, import-linked, and imported-virus cases are considered collectively to be import-associated cases.

States may also choose to classify cases as out-of-state-imported when imported from another state in the United States. For national reporting, however, cases will be classified as either internationally imported or U.S.-acquired.