Rubella, Congenital Syndrome

Merlin disease code: 77100 Rubella, Congenital Syndrome

Specimens for all cases must be sent to the Bureau of Public Health Laboratories

Clinical criteria for case classification

An illness usually manifesting in infancy resulting from rubella infection in utero and characterized by signs or symptoms from the following categories:

- Cataracts/congenital glaucoma, congenital heart disease (most commonly patent ductus arteriosus, or peripheral pulmonary artery stenosis), loss of hearing, pigmentary retinopathy.
- Purpura, splenomegaly, jaundice, microcephaly, mental retardation, meningoencephalitis, radiolucent bone disease.

Laboratory criteria for case classification

One or more of the following:

- Isolation of rubella virus, or
- Or detection of rubella-specific IgM antibody,
- Or detection of rubella virus-specific nucleic acid by polymerase chain reaction (PCR),
- Or infant rubella antibody level that persists at a higher level and for a longer period than expected from passive transfer of maternal antibody (i.e., rubella titer that does not drop at the expected rate of a twofold dilution per month).

Epidemiological criteria for case classification

Not applicable.

Case classification

Confirmed:
A clinically compatible illness in a person with laboratory criteria.

Probable:
A person with either of the following in the absence of another known cause:

- Any two complications listed in the 1st bullet of the clinical criteria for classification
- Or one complication from the 1st bullet and one from the 2nd bullet of the clinical criteria for classification.

Suspect:
A person with some compatible clinical findings but not does not meet the criteria for a probable case.

Criteria to distinguish a new case from previous reports

Not applicable.
Epidemiologic classification of internationally imported and U.S.-acquired cases
Congenital Rubella Syndrome cases will be classified epidemiologically as internationally imported or U.S.-acquired, according to the source of infection in the mother, using the definitions below, which parallel the classifications for rubella cases.

- **Internationally imported case:** To be classified as an internationally imported CRS case, the mother must have acquired rubella infection outside the U.S. or in the absence of documented rubella infection, the mother was outside the U.S. during the period when she may have had exposure to rubella that affected her pregnancy (from 21 days before conception and through the first 24 weeks of pregnancy).

- **U.S.-acquired case:** A U.S.-acquired case is one in which the mother acquired rubella from an exposure in the U.S.

**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.
- **Import-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 rubella genotype, i.e., a genotype that is not occurring within the U.S. in a pattern indicative of endemic transmission. An endemic genotype is the genotype of any rubella 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 rubella virus transmission continuous for ≥12 months within the U.S.
- **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.

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

A person with laboratory evidence of infection, but without any clinical signs or symptoms is **not** reportable.

In probable cases, cataracts and congenital glaucoma are interpreted as a single complication. In cases classified as infection only, if any compatible signs or symptoms (e.g., hearing loss) are identified later, the case should be reclassified as confirmed.