Australian Paediatric Surveillance Unit
STUDY INFORMATION SHEET
Congenital Rubella

Updated 2021

BACKGROUND

Congenital rubella is a potentially vaccine preventable condition. The existing mechanisms to ascertain cases of congenital rubella are inadequate. As most infants and children with congenital rubella are seen at some stage by a paediatrician the APSU will provide a useful mechanism for obtaining information on congenital rubella.

Factors which may lead to a suspicion of congenital rubella are:

- Single or multiple congenital anomalies, particularly sensorineural deafness, cataracts, retinopathy, glaucoma, microphthalmia, microcephaly and congenital heart disease. Other manifestations, include growth retardation, meningoencephalitis, hepatosplenomegaly, jaundice, interstitial pneumonitis and thrombocytopenia
- A history of viral illness (with or without rash) during pregnancy and/or a history of known maternal contact with rubella, especially in the first trimester of pregnancy
- Diagnosis or rubella during pregnancy, by a significant rise in specific rise in specific antibody titre between acute and convalescent phase serum specimens, the presence of rubella-specific IgM indicating a recent infection, or isolation of rubella virus

Diagnosis of congenital rubella is confirmed by:

- The detection of specific IgM antibodies in a serum sample during the first months of life
- The persistence of rubella-specific IgG antibodies in a child aged 6 to 12 months, or in a child up to 2 years who has not been vaccinated
- Isolation of the virus which may be shed from the throat and urine for as long as a year

Confirmed case	A confirmed case requires laboratory definitive evidence (fetal). **OR** Laboratory definitive evidence (infant) AND epidemiological evidence.
Laboratory definitive evidence	**Fetal** Isolation or detection of rubella virus from an appropriate clinical sample (i.e. fetal blood or tissue, amniotic fluid, chorionic villus sample) by culture or nucleic acid testing. **Infant** Isolation or detection of rubella virus from an appropriate clinical sample in an infant, by culture or nucleic acid testing. **OR** Detection of rubella-specific IgM antibody in the serum of the infant.
Epidemiological evidence	The mother has confirmed rubella infection during pregnancy
Probable case	Epidemiological evidence (1st trimester infection). **OR** Epidemiological evidence (2nd and 3rd trimester infection) AND laboratory suggestive evidence (infant).

Laboratory suggestive evidence	**Infant** High / rising rubella-specific IgG level in first year of life.
Congenital Rubella Syndrome	A confirmed case requires laboratory definitive evidence (fetal or infant), as described above AND clinical evidence.
Clinical evidence	A live or still born infant with ANY of the following compatible defects: • Cataracts • Congenital glaucoma • Congenital heart disease • Hearing defects • Microcephaly • Pigmentary retinopathy • Development delay • Purpura • Hepatosplenomegaly • Meninigoencephalitis • Radioluscent bone disease • Other defect not better explained by an alternative diagnosis

OBJECTIVES

1. To more accurately define the present incidence of congenital rubella in Australia
2. To evaluate the reasons why mothers of children with congenital rubella have not been effectively vaccinated
3. To monitor the outcome of the rubella vaccination program

CASE DEFINITION AND REPORTING INSTRUCTIONS

Any child or adolescent up to 16 years of age who in the opinion of the notifying paediatrician has definite or suspected congenital rubella, with or without defects, based on history, clinical and laboratory findings.

Initial: Please report any new patients with definite or suspected congenital rubella whom you have seen since 1st January, 1993.

Subsequent: Please report any new patients with definite or suspected congenital rubella who you have seen this month.

Follow-up of positive returns: A questionnaire requesting further details will be forwarded to practitioners who report a case.

PRINCIPAL INVESTIGATOR

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FURTHER INFORMATION

For further information related to this study or assistance completing the Case Report Form, please contact the APSU by either:

- email: SCHN-APSU@health.nsw.gov.au or
- phone: (02) 9845 3005