

Appendix B: Provincial Case Definitions for Diseases of Public Health Significance

Disease: Rubella

Effective: February 2019

Rubella

1.0 Provincial Reporting

Confirmed and probable cases of disease

2.0 Type of Surveillance

Case-by-case

3.0 Case Classification

3.1 Confirmed Case

Laboratory confirmation of infection in the absence of immunization with rubella-containing vaccine in the last 7 - 42 days:

- Isolation of rubella virus in culture from clinical samples (i.e. throat swabs, nasopharyngeal swabs/aspirates, urine);
OR
- Detection of rubella virus ribonucleic acid (RNA) by nucleic acid amplification test (NAAT);
OR
- Positive serologic test for rubella Immunoglobulin M (IgM) antibody using a recommended assay in a person with an epidemiologic link to a laboratory-confirmed case or has recently travelled to an area of known rubella activity;
OR
- A significant (i.e. fourfold or greater) rise in rubella Immunoglobulin G (IgG) antibody level or a seroconversion using a recommended IgG assay in paired acute and convalescent sera.

OR

Clinically compatible signs and symptoms with an epidemiologic link to a laboratory-confirmed case.

3.2 Probable case

Clinically compatible signs and symptoms in a person with recent travel to an area of known rubella activity.

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

- Any of the following will constitute a confirmed case of rubella:
- Positive for rubella IgM antibody (with an epidemiologic link);
- Seroconversion or rise in rubella IgG titre;
- Positive rubella virus culture with immunofluorescence (IF);
- Positive for rubella virus by direct NAAT.

4.2 Approved/Validated Tests

- Commercial tests for rubella IgM and IgG antibodies.
- Standard culture for rubella virus.
- NAAT for rubella virus RNA.
- Consult with laboratory about appropriate specimens for each testing methodology.

4.3 Indications and Limitations

- IgM serology has the potential for false positive findings. Further confirmation (IgG paired serology or rubella virus detection) is required in cases specifically where there is no established epidemiological link (e.g. recent travel/exposure history).
- Because of the implications of acute rubella infection in a pregnant woman and the potential for a false positive IgM result, avidity testing of Rubella IgG antibodies is recommended for pregnant women with a positive IgM result when there is no change in observed rubella IgG levels. Although in North America most people consider a rubella IgG level of >10 IU/ml to confer immunity against rubella infection, the actual level that correlates with protection has not been fully defined.

5.0 Clinical Evidence

Clinically compatible signs and symptoms are characterized by fever and rash, and at least one of the following:

- arthralgia/arthritis;
- lymphadenopathy;
- conjunctivitis.

6.0 ICD-10 Code(s)

B06 Rubella

7.0 Comments

- Provincial and territorial ministries of health provide active, weekly case-by-case notification (including zero-notification) to the Canadian Measles/ Rubella Surveillance System (CMRSS).
- Weekly reporting is completed from CMRSS to the Pan-American Health Organization, in accordance with the elimination of rubella and congenital rubella syndrome in the Western Hemisphere.

8.0 Sources

Centers for Disease Control and Prevention. National Notifiable Disease Surveillance System: Rubella (German Measles) - 2013 Case Definition [Internet]. Atlanta, GA: U.S. Department of Health & Human Services; 2013 [cited March 13, 2018]. Available from: <https://www.cdc.gov/nndss/conditions/rubella/case-definition/2013/>

National Advisory Committee on Immunization, Public Health Agency of Canada. Part 4- Active Vaccines: Rubella Vaccine. 2016. In: Canadian Immunization Guide [Internet]. Evergreen ed. Canadian Immunization Guide: Her Majesty the Queen in Right of Canada, [cited April 30, 2018]. Available from: <https://www.canada.ca/en/public-health/services/publications/healthy-living/canadian-immunization-guide-part-4-active-vaccines.html?page=7>

Public Health Agency of Canada. Rubella. In: Case Definitions for Communicable Diseases under National Surveillance. Canada Communicable Disease Report. 2009;35S2.

9.0 Document History

Table 1: History of Revisions

Revision Date	Document Section	Description of Revisions
January 2013	General	New template. Section 9.0 Document History added.
January 2013	3.1 Confirmed Case	Change from “Laboratory confirmation of infection in the absence of immunization with rubella-containing vaccine:” to “Laboratory confirmation of infection in the absence of immunization with rubella-containing vaccine in the last 7 - 42 days: ”
January 2013	7.0 Comments	Addition of: <ul style="list-style-type: none">• Provinces provide active, weekly case-by-case notification...• Weekly reporting to the Pan-American Health Organization...

Revision Date	Document Section	Description of Revisions
January 2013	8.0 References	Updated.
February 2019	General	Minor revisions were made to support the regulation change to Diseases of Public Health Significance.
February 2019	8.0 References	Section updated and renamed to Sources.

