

**MEASLES  
(RUBEOLA)**

Last revised July 29, 2011

**I. IDENTIFICATION**

A. **CLINICAL DESCRIPTION:** An illness characterized by all of the following: a generalized rash lasting  $\geq$  three days, temperature  $\geq$  38.3°C (101°F), cough or coryza or conjunctivitis.

B. **REPORTING CRITERIA:** Clinical diagnosis.

C. **LABORATORY CRITERIA FOR CONFIRMATION:**

- Positive serologic test for measles IgM antibody, **OR**
- Significant (generally a fourfold) rise in measles antibody level (IgG) using any standard serologic assay, **OR**
- Isolation of measles virus from a clinical specimen

D. **WISCONSIN CASE DEFINITION:**

- **Confirmed:** An illness that is laboratory confirmed **OR** meets the clinical description and is epidemiologically linked to a confirmed case. A laboratory confirmed case does not need to meet the clinical description.
- **Probable:** An illness that meets the clinical description, has non-contributory or no serologic or virologic testing, and is not epidemiologically linked to a confirmed case.
- **Suspected:** Febrile illness accompanied by generalized maculopapular rash.

**NOTE:** An *imported case* has its source outside the country or state. Rash onset occurs within 21 days of entering the jurisdiction and illness cannot be linked to local transmission. Imported cases are to be classified as international or out-of-state.

An *indigenous case* is defined as a case of measles that is not imported. Cases that are linked to imported cases should be classified as indigenous if the exposure to the imported case occurred in the reporting state. Any case that cannot be proved to be imported should be classified as indigenous.

**II. ACTIONS REQUIRED / PREVENTION MEASURES**

A. **WISCONSIN DISEASE SURVEILLANCE CATEGORY I:** Report **IMMEDIATELY BY TELEPHONE** to the patient's local health department upon identification of a confirmed or suspected case. The local health department shall then notify the state epidemiologist **immediately** of any confirmed or suspected cases. Within 24 hours submit a case report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), by mail or fax using an Acute and Communicable Disease Case Report ([F-44151](#)), or by other means.

B. **EPIDEMIOLOGY REPORTS REQUIRED:**

- *Electronically* – Report through WEDSS, including appropriate disease-specific tabs  
**OR**
- *Paper Copy* – Acute and Communicable Diseases Case Report (F-44151).

C. PUBLIC HEALTH INTERVENTIONS:

In accordance with Wisconsin Administrative rule DHS 145.05, local public health should follow the methods of control recommended in the current edition of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association.

For further detailed information regarding control measures, please see the additional references cited at the end of this document. The Wisconsin Division of Public Health, Immunization Program should also be consulted regarding state-specific guidelines.

- Isolate individuals with confirmed or suspected measles, excluding them from school, child care and the workplace for four days after onset of rash (counting the day of rash onset as day zero).
- Identify and vaccinate susceptible contacts who have no contraindications. In a school setting, persons receiving their first dose of measles-containing vaccine within 72 hours of exposure may be readmitted immediately to the school or child care facility. Students with just one dose of measles-containing vaccine are recommended to receive a second dose, but there is no exclusion.
- Exclude susceptible contacts, including those with a contraindication to vaccination and those who refuse vaccination, from school, childcare and the workplace from day 7 through day 21 following their earliest exposure.
- Exclude healthcare workers without adequate proof of immunity, including those vaccinated post-exposure, from work from day 7 through day 21 following their earliest exposure.
- Conduct surveillance for 2 incubation periods (total 42 days) after the onset of the last case.

D. PREVENTION MEASURES:

Vaccination with MMR (Measles, Mumps, Rubella) vaccine

- **Children** should routinely receive two doses of MMR vaccine. The first dose should be administered at 12 - 15 months of age and the second dose should be administered at 4 - 6 years of age (at the time of school entry).
- **Adults** should receive at least one dose of MMR vaccine unless they have acceptable evidence of immunity. For the general public, birth before 1957, documentation of previous dose(s) of live measles-containing vaccine, or a positive serologic test for measles antibodies are considered acceptable evidence of immunity.
- Two doses are recommended for college students and international travelers due to increased risk of exposure.
- **Health care workers**
  - Persons born during or after 1957 should receive two doses of live measles-containing vaccine (e.g. MMR)
  - Persons born before 1957 who have not received 2 doses of MMR vaccine and do not have serologic proof of immunity should strongly consider receiving 2 doses of MMR.

III. CONTACTS FOR CONSULTATION

A. LOCAL HEALTH DEPARTMENT – REGIONAL OFFICES – TRIBAL AGENCIES:

<http://www.dhs.wisconsin.gov/localhealth/index.htm>

Wisconsin Division of Public Health Communicable Disease Surveillance Guideline

B. REGIONAL IMMUNIZATION PROGRAM REPRESENTATIVES:

<http://www.dhs.wisconsin.gov/immunization/regiondepts.htm>

C. BCDER/ IMMUNIZATION PROGRAM: (608) 267-9959.

D. WISCONSIN STATE LABORATORY OF HYGIENE

Communicable Disease Division

Customer Service: (800) 862-1013 or (608) 262-6386

Clinical Supplies: (800) 862-1088 or (608) 265-2966

**IV. RELATED REFERENCES**

- Heymann DL, ed. Measles. In: Control of Communicable Diseases Manual. 19th ed. Washington, DC: American Public Health Association, 2008:402-408
- Pickering LK, ed. Measles. In: Red Book: 2009 Report of the Committee on Infectious Diseases. 27th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2009:444-455
- Measles, Mumps and Rubella – Vaccine Use and Strategies for Elimination of Measles, Rubella and Congenital Rubella Syndrome and Control of Mumps – Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR, 1998; 47 (RR-8):1-57  
<http://www.cdc.gov/mmwr/PDF/rr/rr4708.pdf>
- ACIP Provisional Recommendations for MMR ‘Evidence of Immunity’ Requirements for Healthcare Personnel. August 28, 2009  
<http://www.cdc.gov/vaccines/recs/provisional/downloads/mmr-evidence-immunity-Aug2009-508.pdf>
- Centers for Disease Control and Prevention. Manual for the surveillance of vaccine-preventable diseases. Centers for Disease Control and Prevention, Atlanta, GA, 2008. Available at:  
<http://www.cdc.gov/vaccines/pubs/surv-manual/>