



Communicable Disease Case Reporting and Investigation Protocol **Mumps**

I. Identification and definition of cases

A. Clinical description:

Mumps is a viral illness characterized by acute parotid or other salivary gland swelling. Parotitis tends to occur early and may first be noted as an earache or pain on palpitation at the angle of the jaw. Symptoms tend to decrease after 1 week and usually resolve after 10 days. The mumps virus is spread by contact with infectious respiratory tract secretions and saliva. Humans are the reservoir for mumps. The incubation for mumps is usually 16–18 days, with a range of 12–25 days. A symptomatic individual is considered infectious from 2 days prior to parotitis onset through 5 days after.

B. Clinical criteria: In the absence of a more likely alternative diagnosis, an acute illness characterized by:

- Parotitis or swelling of other (non-parotid) salivary glands(s) of any duration, **or**
- At least one of the following mumps-related complication(s):
 - Orchitis
 - Oophoritis
 - Aseptic meningitis
 - Encephalitis
 - Hearing loss
 - Mastitis
 - Pancreatitis

C. Laboratory criteria:

Confirmatory Laboratory Evidence

- Positive reverse transcriptase polymerase chain reaction (RT-PCR) for mumps-specific nucleic acid, **or**
- Isolation of mumps virus, **or**
- Significant rise (at least a four-fold rise in a quantitative titer or seroconversion) in paired acute and convalescent serum mumps immunoglobulin G (IgG) antibody.

Supportive Laboratory Evidence: Positive test for serum mumps immunoglobulin M (IgM) antibody.

Note: The categorical labels used here to stratify laboratory evidence are intended to support the standardization of case classifications for public health surveillance. The categorical labels should not be used to interpret the utility or validity of any laboratory test methodology.

D. Epidemiologic linkage criteria

- Exposure to or contact with a confirmed mumps case, **or**
- Member of a group or population identified by public health authorities as being at increased risk for acquiring mumps because of an outbreak.

E. Wisconsin surveillance case definition:

Suspected:

- Meets the clinical criteria but does not meet laboratory or epidemiologic linkage criteria, **or**
- Meets supportive laboratory evidence but does not meet the clinical criteria **and** has documentation that mumps was suspected.

Probable:

- Meets clinical criteria **and** epidemiologic linkage criteria, **or**
 - Meets supportive laboratory evidence **and** meets clinical criteria of:
 - ≥ 2 day duration of parotitis or other salivary gland swelling **or**
 - a mumps-related complication
- and**
- Does not meet epidemiologic linkage criteria.

Confirmed: Meets confirmatory laboratory evidence.

II. Reporting**A. Wisconsin disease surveillance category II – Methods for reporting:**

This disease shall be reported to the patient's local health officer or Tribal health director or to the local health officer or Tribal health director's designee within 72 hours of recognition of a case or suspected case, per Wis. Admin. Code § DHS 145.04 (3) (b). Report electronically through the Wisconsin Electronic Disease Surveillance System (WEDSS), or mail or fax a completed Acute and Communicable Disease Case Report ([F-44151](#)) to the address on the form.

B. Responsibility for reporting:

According to Wis. Admin. Code § [DHS 145.04\(1\)](#), persons licensed under Wis. Stat. ch. [441](#) or [448](#), laboratories, health care facilities, teachers, principals, or nurses serving a school or daycare center, and any person who knows or suspects that a person has a communicable disease identified in [Appendix A](#).

C. Clinical criteria for reporting:

Clinically compatible illness. Cases should be reported immediately upon consideration of mumps in the differential diagnosis.

D. Laboratory criteria for reporting:

Laboratory evidence of infection (for example, PCR, culture, or IgM).

III. Case investigation**A. Responsibility for case investigation:**

It is the responsibility of the local or Tribal health department (LTHD) to investigate or arrange for investigation of suspected or confirmed cases as soon as is reasonably possible. A case investigation may include information collected by phone, in-person, in writing, or through review of medical records or communicable disease report forms, as necessary and appropriate.

B. Required documentation:

1. Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs.
2. Upon completion of investigation, set WEDSS disease incident process status to "Sent to State."

C. Additional investigation responsibilities

Contact your [Immunization Program Regional Representative](#) using the list available on the DHS website.

IV. Public health interventions and prevention measures

- A. In accordance with Wis. Admin. Code § [DHS 145.05](#), LTHD agencies should follow the methods of control recommended in the current editions of *Control of Communicable Diseases Manual*, edited by David L. Heymann, published by the American Public Health Association, and the American Academy of Pediatrics' *Red Book: Report of the Committee on Infectious Diseases*, unless otherwise specified by the state epidemiologist.
- B. Refer to Wisconsin DPH's [Mumps Surveillance and Control Guidelines](#) for detailed information on case and contact management.
- C. Implement control measures before laboratory confirmation. If the laboratory results are negative, the decision to continue control measures should be made in consultation with the treating physician, the LTHD, and DPH.

D. Clinical specimens should be sent to the Wisconsin State Laboratory of Hygiene.

V. Contacts for consultation

- A. Local health departments and Tribal health agencies
- B. List of regional Immunization Program representatives.
- C. Wisconsin Division of Public Health, Immunization Program: 608-267-9959.
After hours number: (800) 943-0003 (option 4).
- D. Wisconsin State Laboratory of Hygiene: 1-800-862-1013
After hours emergency number 608-263-3280

VI. Related references

- A. A. Heymann DL, ed. Mumps. In: Control of Communicable Disease Manual. 21st ed. Washington, DC: America Public Health Association, 2022.
- B. Committee on Infectious Diseases, American Academy of Pediatrics. David W. Kimberlin, MD, FAAP, ed. 2024. Red Book: 2024-2027 Report of the Committee on Infectious Diseases - 33rd Ed. American Academy of Pediatrics. ISBN 978-1-61002-734-2. eISBN 978-1-61002-735-9.
- C. Centers for Disease Control and Prevention. Epidemiology and Prevention of Vaccine-Preventable Diseases. Hall E., Wodi A P., Hamborsky J., eds. 14th ed. Washington D.C. Public Health Foundation, 2021.
- D. Centers for Disease Control and Prevention. Manual for the Surveillance of Vaccine-Preventable Diseases Mumps website
- E. Centers for Disease Control and Prevention. Mumps Surveillance Worksheet. Retrieved November 4th, 2024, from <https://www.cdc.gov/surv-manual/downloads/appendix10-4-mum-wsht-508.pdf>
- F. Wisconsin Immunization Program Mumps webpage.