



Communicable Disease Case Reporting and Investigation Protocol **RABIES (HUMAN)**

I. IDENTIFICATION AND DEFINITION OF CASES

A. **Clinical Description:** An almost invariably fatal acute encephalomyelitis caused by the rabies virus.

B. **Laboratory Criteria:** Laboratory criteria for confirmation are any of the following:

- Detection of Lyssavirus antigens in a clinical specimen (preferably the brain or the nerves surrounding hair follicles in the nape of the neck) by direct fluorescent antibody test, **or**
- Isolation (in cell culture or in a laboratory animal) of a Lyssavirus from saliva or central nervous system tissue, **or**
- Identification of Lyssavirus-specific antibody (i.e., by indirect fluorescent antibody (IFA) test or complete rabies virus neutralization at 1:5 dilution) in the CSF, **or**
- Identification of Lyssavirus-specific antibody (i.e., by indirect fluorescent antibody (IFA) test or complete rabies virus neutralization at 1:5 dilution) in the serum of an unvaccinated person, **or**
- Detection of Lyssavirus viral RNA (using reverse transcriptase-polymerase chain reaction [RT-PCR]) in saliva, CSF, or tissue.

All human testing for rabies are performed at CDC. Testing requires prior consultation with Bureau of Communicable Diseases (BCD) staff who in turn need to receive approval from the Centers for Disease Control and Prevention (CDC).

C. **Wisconsin Surveillance Case Definition: Confirmed:** a clinically compatible illness that is laboratory-confirmed.

II. REPORTING

A. **Wisconsin Notifiable Disease Category I – Methods for Reporting:** This disease shall be reported **IMMEDIATELY BY TELEPHONE** to the patient's local health officer or to the local health officer's designee upon identification of a case or suspected case, per Wis. Admin. Code § [DHS 145.04 \(3\) \(a\)](#). In addition to the immediate report, complete and fax, mail or electronically report an Acute and Communicable Disease Case Report (DHS [F-44151](#)) to the address on the form, or enter the data into the Wisconsin Electronic Disease Surveillance System, within 24 hours.

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 day care center, and any person who knows or suspects that a person has a communicable disease identified in [Appendix A](#).

C. **Clinical Criteria for Reporting:** Clinical diagnosis initially; laboratory confirmation required to meet case definition.

D. **Laboratory Criteria for Reporting:** Any laboratory evidence of rabies virus infection.

III. CASE INVESTIGATION

A. **Responsibility for case investigation:** It is the responsibility of the local health department (LHD) 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.

Because of the rarity and severity of rabies, investigations should be conducted in collaboration with BCD staff.

B. **Required Documentation:**

1. Complete the WEDSS disease incident investigation report and insert notes on the investigation and laboratory results into the file cabinet in WEDSS.
2. Upon completion of investigation, set WEDSS disease incident process status to “Sent to State.”

C. Additional Investigation Responsibilities:

1. Contact and work with BCD staff on the investigation.
2. BCD staff will arrange for submission of patient specimens to CDC.

IV. PUBLIC HEALTH INTERVENTIONS AND PREVENTION MEASURES

- A. In accordance with Wis. Admin. Code § [DHS 145.05](#), local public health 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. Educate public about the risks of approaching stray and wild animals, as well as the risk of encounters with bats.
- C. Manage potential rabies exposures appropriately through observation or testing of animals and the judicious use of rabies post-exposure prophylaxis. An algorithm for animal bite and rabies prevention management can be found at <https://www.dhs.wisconsin.gov/rabies/algorithm/index.htm>.
- D. If a patient with suspected rabies is hospitalized, ensure that appropriate infection control precautions are being taken at the facility, even if the case is not yet confirmed.

V. CONTACTS FOR CONSULTATION

- A. Local health departments and tribal health agencies:
<https://www.dhs.wisconsin.gov/lh-depts/index.htm>
- B. Bureau of Communicable Diseases, Communicable Diseases Epidemiology Section: 608-267-9003
- C. Wisconsin State Laboratory of Hygiene: 800-862-1013

VI. RELATED REFERENCES

- A. Heymann DL, ed. Rabies. In: *Control of Communicable Diseases Manual*. 20th ed. Washington, DC: American Public Health Association, 2015: 497-508.
- B. Pickering LK, ed. Rabies. In: *Red Book: 2015 Report of the Committee on Infectious Diseases*. 30th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2015: 658-666.
- C. Centers for Disease Control and Prevention website: <https://www.cdc.gov/rabies/>
- D. Division of Public Health animal bite/rabies prevention algorithm:
<https://www.dhs.wisconsin.gov/rabies/algorithm/index.htm>
- E. Centers for Disease Control and Prevention. Human Rabies Prevention - United States, 2008. Recommendations of the Advisory Committee on Immunization Practices. MMWR 2008;57(No. RR-3).
<http://www.cdc.gov/mmwr/pdf/rr/rr5703.pdf>