



Communicable Disease Case Reporting and Investigation Protocol **LEPROSY (HANSEN'S DISEASE)**

I. IDENTIFICATION AND DEFINITION OF CASES

- A. **Clinical Description:** A chronic bacterial infection caused by *Mycobacterium leprae*. Major forms of the disease are:
- **Indeterminate:** Early lesions, usually hypopigmented macules, without developed tuberculoid or lepromatous features.
 - **Tuberculoid:** One or a few well-demarcated, hypopigmented, and anesthetic skin lesions, frequently with active, spreading edges and a clearing center; peripheral nerve swelling or thickening may also occur. Cell-mediated immune responses are intact.
 - **Borderline (Dimorphous):** Skin lesions characteristic of both tuberculoid and lepromatous forms.
 - **Lepromatous:** A number of erythematous papules and nodules or an infiltration of the face, hands, and feet with lesions in bilateral and symmetric distribution that progresses to thickening of the skin. Cell-mediated immunity is greatly diminished.
- B. **Laboratory Criteria:** Confirmatory laboratory evidence:
- Histopathologic examination of skin biopsy by an experienced pathologist is the best method of establishing the diagnosis and is the basis for classification of leprosy.
 - Demonstration of acid-fast bacilli in skin or dermal nerve, obtained from the full thickness skin biopsy of a lepromatous lesion. Acid-fast bacilli are rarely found in patients with the tuberculoid and indeterminate forms of disease. Culture is usually not successful.
 - A PCR test is available on a limited basis after consultation with the National Hansen's Disease (Leprosy) Program at 1-800-642-2477, weekdays 9:00 a.m. to 5:30 p.m. ET.
- C. **Wisconsin Surveillance Case Definition:** A case that is laboratory-confirmed.

II. REPORTING

- A. **Wisconsin Disease Surveillance Category II – Methods for Reporting:** This disease shall be reported to the patient's local health officer or to the local health officer'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:**
- D. **Laboratory Criteria for Reporting:**
- Histopathologic examination of skin biopsy by an experienced pathologist is the best method of establishing the diagnosis and is the basis for classification of leprosy.
 - Demonstration of acid-fast bacilli in skin or dermal nerve, obtained from the full thickness skin biopsy of a lepromatous lesion. Acid-fast bacilli are rarely found in patients with the tuberculoid and indeterminate forms of disease. Culture is usually not successful.
 - A PCR test is available on a limited basis after consultation with the National Hansen's Disease (Leprosy) Program at 1-800-642-2477, weekdays 9:00 a.m. to 5:30 p.m. ET.

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.
- B. **Required Documentation:** Complete the WEDSS disease incident investigation report, including appropriate, disease-specific tabs.
- C. **Additional Investigation Responsibilities**

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. Clinicians and patients should be aware of the resources available to them. Consultation is available through the National Hansen's Disease Program at <http://www.hrsa.gov/hansensdisease/index.html> or 1-800-642-2477, weekdays 9:00 a.m. to 5:30 p.m. ET. Free medication and care are available for patients at regional clinics; residential care is also available through the national program.
- C. Although the disease can be spread from person to person, transmission is rare and quarantine (isolation) is not recommended. It is estimated that infectiousness ends after as little as one day of appropriate antibiotic treatment, so early diagnosis and treatment are the keys to disease control. Hansen's disease is not spread through sexual contact, nor is it transmitted vertically from mother to fetus.
- D. Household contacts of persons with Hansen's disease should receive an annual, thorough physical exam each year for five years after exposure. Any skin rash should be biopsied and examined for Hansen's disease.

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. Bureau of Communicable Diseases, Wisconsin Tuberculosis Program: 608-261-6319
- D. Wisconsin State Laboratory of Hygiene: 1-800-862-1013
- E. National Hansen's Disease Program: 1-800-642-2477, weekdays 9 am to 5:30 pm ET for consultation and referral to one of 900 private physicians nationwide who have expertise in treating Hansen's disease (leprosy).
<http://www.hrsa.gov/hansensdisease/index.html>

VI. RELATED REFERENCES

- A. Heymann DL, ed. Leprosy. In: *Control of Communicable Diseases Manual*. 20th ed. Washington, DC: American Public Health Association, 2015: 344-347.
- B. Kimberlin, DW, ed Tuberculosis In: *Red Book: 2021 Report of the Committee on Infectious Diseases*. 32nd ed. Itasca, IL: American Academy of Pediatrics, 2021: 504-508.
- C. Centers for Disease Control and Prevention website: <https://www.cdc.gov/leprosy/>