

LEGIONELLOSIS
(Legionnaires' disease, Pontiac fever)
Last revised May, 2011

I. IDENTIFICATION

A. CLINICAL DESCRIPTION: An illness with acute onset that can take two distinct forms:

- **Legionnaire disease**, which is characterized by fever, cough, myalgia, and clinical or radiographic pneumonia.
- **Pontiac fever**, a similar but milder illness without pneumonia.

B. REPORTING CRITERIA: Clinical diagnosis and positive laboratory test for legionellosis.

C. LABORATORY CRITERIA:

Confirmed:

- By culture: isolation of any *Legionella* organism from respiratory secretions, lung tissue, pleural fluid, or other normally sterile fluid.
- By detection of *Legionella pneumophila* serogroup 1 antigen in urine using validated reagents.
- By seroconversion: fourfold or greater rise in specific serum antibody titer to *Legionella pneumophila* serogroup 1 using validated reagents.

Suspect:

- By seroconversion: fourfold or greater rise in antibody titer to specific species or serogroups of *Legionella* other than *L. pneumophila* serogroup 1 (e.g., *L. micdadei*, *L. pneumophila* serogroup 6).
- By seroconversion: fourfold or greater rise in antibody titer to multiple species of *Legionella* using pooled antigen and validated reagents.
- By the detection of specific *Legionella* antigen or staining of the organism in respiratory secretions, lung tissue, or pleural fluid by direct fluorescent antibody (DFA) staining, Immunohistochemistry (IHC), or other similar method, using validated reagents.
- By detection of *Legionella* species by a validated nucleic acid assay (RT-PCR).

D. WISCONSIN CASE DEFINITION: A clinically compatible case that has laboratory test results that identify confirmed or suspect cases.

II. ACTIONS REQUIRED / PREVENTION MEASURES

A. WISCONSIN DISEASE SURVEILLANCE CATEGORY II: Report to the Local Health Department electronically, through the Wisconsin Electronic Disease Surveillance System (WEDSS), by mail or fax using an Acute and Communicable Disease Case Report ([F44151](#)) or by other means within 72 hours upon recognition of a case

B. EPIDEMIOLOGY REPORTS REQUESTED:

Electronically Report through WEDSS, along with appropriate disease specific tabs
OR

Paper Copy -Acute and Communicable Diseases Case Report ([F44151](#)) along with Legionellosis Case Report ([DPH 9069](#)).

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.

- Attempts to culture the organism from clinical specimens prior to the initiation of antibiotic therapy are strongly encouraged.
- Source investigation by LHD. The completion of the Legionellosis Case Report Form (DPH 9069) usually fulfills this requirement for sporadic cases.
- Outbreaks require a search for potential exposures common to multiple case-patients. Contact the BCDER as soon as possible.

III. CONTACTS FOR CONSULTATION

A. LOCAL HEALTH DEPARTMENTS – REGIONAL OFFICES – TRIBAL AGENCIES:
<http://www.dhs.wisconsin.gov/localhealth/index.htm>

B. BCDER / COMMUNICABLE DISEASE EPIDEMIOLOGY SECTION: (608) 267-9003

C. WISCONSIN STATE LABORATORY OF HYGIENE / Bacteriology: (608) 263-3421

IV. RELATED REFERENCES

- Heymann DL, ed. Anthrax. In: *Control of Communicable Diseases Manual*. 19th ed. Washington, DC: American Public Health Association, 2008: 337-340
- Pickering LK, ed. Anthrax. In: *Red Book: 2009 Report of the Committee on Infectious Diseases*. 28th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2009: 419-420
- Wisconsin Legionella Manual (link).