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:

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

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

IV. RELATED REFERENCES


- Wisconsin Legionella Manual (link).