

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Legionellosis

Revised January, 2012

Legionellosis

1.0 Provincial Reporting

Confirmed and probable cases of disease

2.0 Type of Surveillance

Case-by-case

3.0 Case Classification

3.1 Confirmed Case

Laboratory confirmation of infection with clinically compatible signs and symptoms:

- Isolation of *Legionella* spp. or detection of the antigen from appropriate clinical specimens (e.g., lung tissue, pleural fluid, sputum)
OR
- A significant (i.e., fourfold or greater) rise in *Legionella* spp. total antibody titre between acute and convalescent sera
OR
- Single specimen or standing total antibody titre \geq 1:256 against *Legionella* spp.
OR
- Demonstration of *L. pneumophila* serogroup 1 antigen in urine

3.2 Probable Case

Clinically compatible signs and symptoms with:

- Demonstration of *Legionella* spp. DNA by nucleic acid amplification test (NAT), such as PCR
- 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

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of Legionellosis:

- Positive *Legionella* spp. culture
- A significant (i.e., fourfold or greater) rise in *Legionella* spp total antibody titre between acute and convalescent sera

4.2 Approved/Validated Tests

- Standard culture for *Legionella* spp. with confirmation
- *L. pneumophila* serum antibody tests
- *L. pneumophila* serogroup 1 urine antigen test
- NAT for *Legionella* spp.
- Direct fluorescent antibody staining

4.3 Indications and Limitations

- Standard culture for *L. pneumophila*

- All *Legionella* spp. [as well as former members of the genus *Legionella* which taxonomically belong to other genera (*Tatlockia micdadei*, *Tatlockia maceachernii*, *Fluoribacter bozemaniae*, *Fluoribacter dumoffii*, and *Fluoribacter gormanii*)], are considered to be pathogenic although they are implicated much less frequently than *L. pneumophila*.
- Positive specimens by urine antigen tests for the detection of *Legionella pneumophila* serogroup 1 are considered presumptive. When possible, patients should also be tested through accepted laboratory tests as outlined in section 4.2.

5.0 Clinical Evidence

Legionellosis is comprised of two distinct illnesses:

- Legionnaires' Disease - characterized by anorexia, malaise, myalgia, headache, productive cough, temperature > 39 degrees Celsius, pneumonia, confusion, chills, nausea, diarrhea;
- Pontiac Fever – A milder form of the illness without pneumonia. It is characterized by anorexia, malaise, myalgia, headache, productive cough, temperature > 37.5 degrees Celsius

6.0 ICD Code(s)

6.1 ICD-10 Code(s)

A48.1 Legionnaire's Disease
A48.2 Pontiac Fever

6.2 ICD-9/ICD-9CM Code(s)

482.8 Legionnaire's Disease

7.0 Comments

N/A

8.0 References

- Ministry of Health and Long-Term Care, Public Health Division. iPHIS manual. Toronto, ON: Queen's Printer for Ontario; 2005.
- Nationally Notifiable Diseases Case Definitions with Canadian Public Health Laboratory Network (CPHLN) and Epidemiologic Group Draft Edits. March 2007. Based on case definitions as written in the: Health Canada. Case definitions for diseases under national surveillance. Can Commun Dis Rep. 2000; 26 Suppl 3:i-iv 1-122. Available from <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/00pdf/cdr26s3e.pdf>.

