Ministry of Health and Long-Term Care

Infectious Diseases Protocol

Appendix B: Provincial Case Definitions for Diseases of Public Health Significance

Disease: Psittacosis/Ornithosis

Effective: February 2019

Ontario

Psittacosis/Ornithosis

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:

- A significant (i.e., fourfold or greater) rise in antibodies to *Chlamydia (*formerly *Chlamydophila*) *psittaci (C. psittaci)*
  OR
- Isolation of the infectious agent from a clinical specimen (e.g., blood, sputum)
  OR
- Positive for nucleic acid amplification testing (NAAT) for *C. psittaci* specific targets

3.2 Probable Case

Clinically compatible signs and symptoms in a person with:

- An epidemiologic link to a known source (i.e., human, animal or environment)
  OR
- Supportive serology (e.g., *C. psittaci* titre of ≥ 32) with one or more serum specimens obtained after onset of symptoms

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of psittacosis/ornithosis:

- Isolation of infectious agent from clinical specimen [This should be done in a Containment level 3 facility, *C. psittaci* being a risk level 3 agent in Canada.]
- A significant (i.e., fourfold or greater) rise in antibody response towards *C. psittaci* with specimen collection ≥ 2-3 weeks apart.
- Positive for NAAT for *C. psittaci* specific targets

4.2 Approved/Validated Tests

- Microimmunofluorescence (MIF) assay for serologic response to *C. psittaci,* with positive and negative control sera used with each run and other quality indices as described by Dowell *et al.*
- NAAT for *C. psittaci* specific targets

4.3 Indications and Limitations

- Chronic *C. psittaci* human infection has been found to be associated with ocular adnexal mucosa-associated lymphoid tissue [MALT]-type lymphoma in some instances
- A commercial kit for MIF testing (Cypress Ca) contains antigens for *C. pneumoniae, C. psittaci* and *C. trachomatis*. However, cross reactivity among closely related agents using MIF test procedures have been observed; the sensitivity and specificity of the MIF for diagnosis of psittacosis specifically is not well evaluated and so interpretation of titre must be linked with symptoms and / or linkage with definitive cases (see also recent publication by Verminnen *et al*.).
- In-house NAAT testing should be done using standard controls

5.0 Clinical Evidence

Mild forms may be mistaken for common respiratory illnesses. The disease can have a sudden onset with fever, chills, sweating, myalgia, loss of appetite, upper or lower respiratory tract symptoms, non-productive cough, and headaches. Human disease can be severe, especially in untreated elderly persons.

6.0 ICD 10 Code(s)

A70 Chlamydia psittaci infection

7.0 Sources

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8.0 Document History

Table 1: History of Revisions

Revision Date	Document Section	Description of Revisions
December 2014	General	New template. Title of Section 8.0 changed from "References" to "Sources". Section 9.0 Document History added.
December 2014	3.1 Confirmed Case	Addition of third bullet "OR Positive for nucleic acid amplification testing (NAAT) for *C.psittaci* specific targets".
December 2014	3.2 Probable Case	Removal of third bullet "Positive nucleic acid amplification testing (NAT) for *C.psittaci* specific targets".
December 2014	4.1 Laboratory Confirmation	Lower case "psittacosis/ornithosis". Addition of "with specimen collection ≥ 2-3 weeks apart." To second bullet. Addition of third bullet "Positive for nucleic amplification testing (NAAT) for *C.psittaci* specific targets".
December 2014	4.2 Approved/Validated Tests	Removal of "(e.g., 16SrRNA and 23SrRNA gene targets)".
December 2014	4.3 Indications and Limitations	Entire section revised.

Revision Date	Document Section	Description of Revisions
December 2014	8.0 Sources	Updated.
February 2019	General	Minor revisions were made to support the regulation change to Diseases of Public Health Significance


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