

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Pneumococcal disease, invasive

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1.0 Provincial Reporting

Confirmed cases of disease

2.0 Type of Surveillance

Case-by-case

3.0 Case Classification

3.1 Confirmed Case

Laboratory confirmation of infection (organism detected) with invasive disease (See Section 5.0):

- Isolation of *Streptococcus pneumoniae* from a normally sterile site (e.g., blood, cerebrospinal fluid [CSF]), excluding the middle ear
- OR**
- Detection of *S. pneumoniae* DNA by nucleic acid amplification test (NAT) from a normally sterile site (e.g., blood, CSF), excluding the middle ear

3.2 Probable Case

Invasive disease and no other apparent cause with laboratory confirmation of infection (antigen detected):

- Detection of *S. pneumoniae* antigen from a normally sterile site (e.g., blood CSF), excluding the middle ear

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of Invasive Pneumococcal disease:

- Positive *S. pneumoniae* culture from a normally sterile site excluding middle ear
- Positive NAT for *S. pneumoniae* from a normally sterile site excluding middle ear

4.2 Approved/Validated Tests

- Standard culture for *S. pneumoniae*
- NAT for *S. pneumoniae*
- *S. pneumoniae* antigen test

4.3 Indications and Limitations

- Detection of *S. pneumoniae* antigen does not allow determination of serotype
- Isolation from non-routine specimens (joint, pleural, or pericardial fluid) may also be performed, but the microbiologist at the Public Health Laboratories of the Ontario Agency for Health Protection and Promotion (OAHPP) should be contacted before these specimens are sent.

5.0 Clinical Evidence

Invasive disease manifests itself mainly as pneumonia with bacteremia, bacteremia without a known site of infection, or meningitis. Pneumonia without bacteremia is not reportable.

6.0 ICD Code(s)

6.1 ICD-10 Code(s)

A40.3 Septicaemia due to *S. pneumoniae*
B95.3 *S. pneumoniae* as the cause of diseases classified elsewhere, e.g.:
 I30.1 Infective pericarditis
 K65.0 Acute peritonitis
 M00.8 Arthritis and polyarthritis due to other specified bacterial agents
 O85 Puerperal sepsis
 P23.6 Congenital pneumonia due to other bacterial agents
G00.1 Meningitis due to *S. pneumoniae*
J13 Pneumonia due to *S. pneumoniae*
M00.1 Pneumococcal arthritis and polyarthritis

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

038.2 Septicaemia due to *S. pneumoniae*
041.2 *S. pneumoniae* of unspecified site and as the cause of diseases classified elsewhere, e.g.:
 420.9 Infective pericarditis
 711.0 Pyogenic arthritis
567.1 Pneumococcal peritonitis
320.1 Meningitis due to *S. pneumoniae*
481 Pneumonia due to *S. pneumoniae*
711.0 Pneumococcal arthritis and polyarthritis

7.0 Comments

- Isolates should be sent to the Public Health Laboratories of the OAHPP for serotyping or further characterization
- Determination of serotype from a sterile site isolate and further characterization by a reference laboratory are important in monitoring changes in disease epidemiology, including the impact of vaccination programs, potential serotype replacement, and antibiotic resistance.

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>.

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