

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Meningococcal disease, invasive

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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 invasive disease (See Section 5.0):

- Isolation of *Neisseria meningitidis* from a normally sterile site (e.g., blood, cerebrospinal fluid [CSF], joint, pleural or pericardial fluid)
- OR**
- Detection of *N. meningitidis* deoxyribonucleic acid (DNA) by a validated nucleic acid amplification test (NAT) from a normally sterile site

3.2 Probable Case

Invasive disease with purpura fulminans or petechiae in the absence of a positive blood culture and no apparent cause with demonstration of *N. meningitidis* antigen in the CSF

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of invasive Meningococcal disease:

- Positive culture
- Positive NAT for *N. meningitidis*

4.2 Approved/Validated Tests

- Standard culture
- NAT for *N. meningitidis*
- Consult with laboratory about appropriate tests and specimens

4.3 Indications and Limitations

- Detection of *N. meningitidis* antigen does not allow determination of serogroup
- 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 (OAHP) should be contacted before these specimens are sent.

5.0 Clinical Evidence

Invasive meningococcal disease usually manifests itself as meningitis and/or meningococcaemia, although other manifestations may be observed (e.g., septic arthritis pneumonia with bacteremia). Invasive disease may progress rapidly to purpura fulminans, shock and death.

6.0 ICD Code(s)

ICD 10 Code A39

7.0 Comments

- Isolates should be sent to the Public Health Laboratories of the OAHPP for serogroup determination and to the National Microbiology Laboratory (NML) for further characterization.
- Determination of serogroup 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 serogroup replacement, and antibiotic resistance.

8.0 References

- National Notifiable Diseases Surveillance System. Case Definitions. [Internet]. Meningococcal Disease (*Neisseria meningitidis*); 2005. Atlanta, GA: Centers for Disease Control and Prevention (CDC); 2008. [cited 2009 Feb 12]. Available from <http://www.cdc.gov/nceh/diseases/nndss/casedef/meningococcalcurrent.htm>.
- 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:iv 1-122. Available from <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/00pdf/cdr26s3e.pdf>.

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