

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Hantavirus pulmonary syndrome

Hantavirus pulmonary syndrome

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 with clinically compatible signs and symptoms:

- Detection of Immunoglobulin M (IgM) antibodies or a significant (i.e., fourfold or greater) rise in hantavirus-specific Immunoglobulin G (IgG) antibody titres
OR
- Detection of hantavirus-specific ribonucleic acid (RNA) in an appropriate clinical specimen (See Section 7.0)
OR
- Detection of hantavirus antigen by immunohistochemistry

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of Hantavirus Pulmonary Syndrome (HPS):

- Positive for Hantavirus IgM antibodies
- Significant (i.e., fourfold or greater) rise in Hantavirus IgG antibody titres
- Positive for Hantavirus RNA
- Positive for Hantavirus antigen

4.2 Approved/Validated Tests

- Test for Sin nombre virus IgM and IgG antibodies
- Nucleic acid amplification test (NAT) for Sin nombre virus
- Test for Sin nombre virus antigen

4.3 Indications and Limitations

- N/A

5.0 Clinical Evidence

- A febrile illness (Temperature > 38.3° C [101° F] oral) requiring supplemental oxygen
AND
- Bilateral diffuse infiltrates (may resemble acute respiratory distress syndrome [ARDS])
AND
- Develops within 72 hours of hospitalization in a previously healthy person
OR
- Unexplained illness resulting in death plus an autopsy examination demonstrating non-cardiogenic pulmonary edema without an identifiable specific cause of death

6.0 ICD Code(s)

ICD 10 Code B33.4

7.0 Comments

Because of the difficulty in diagnosing hantavirus pulmonary syndrome (HPS), a section on appropriate specimen collection and submission is included below.

For acute cases:

- 10 ml of clotted blood for serology

If available or when required:

- Formalin fixed tissues at ambient temperature for immunohistochemistry
- Frozen tissues (lung biopsy) for polymerase chain reaction (PCR)

For autopsy specimen:

- All blood and sera samples collected
- Paraffin embedded blocks and formalin fixed tissues for immunohistochemistry
- Frozen tissues for PCR

8.0 References

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- National Notifiable Diseases Surveillance System. Case Definitions. [Internet]. Hantavirus; 1996. Atlanta, GA: Centers for Disease Control and Prevention (CDC); 2008. [cited 2009 Feb 12]. Available from <http://www.cdc.gov/ncphi/diss/nndss/casedef/hantaviruscurrent.htm>.
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