

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Rabies

Rabies

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:

- Detection of viral antigen in an appropriate clinical specimen, preferably the brain or the nerves surrounding hair follicles in the nape of the neck, by immunofluorescence
- OR**
- Isolation of rabies virus from saliva, cerebrospinal fluid (CSF), or central nervous system tissue using cell culture or laboratory animal
- OR**
- Detection of rabies virus ribonucleic acid (RNA) in an appropriate clinical specimen (e.g., saliva)

3.2 Probable Case

Clinically compatible signs and symptoms with the following laboratory results:

- Demonstration of rabies-neutralizing antibody titre \geq five (i.e., complete neutralization) in the serum or CSF of an unvaccinated person

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

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

- Positive for rabies antigen
- Positive rabies virus culture
- Positive nucleic acid amplification test (NAT) for rabies virus

4.2 Approved/Validated Tests

- Immunofluorescence for rabies virus antigen
- Standard culture for rabies virus
- NAT for rabies virus RNA
- Neutralizing antibody titres for rabies virus

4.3 Indications and Limitations

- Negative results do not rule out rabies infection because viral material may not be detectable (e.g., early in infection). CSF frequently remains negative.
- The presence of rabies-neutralizing antibodies can indicate an exposure to rabies virus antigen or passive immunization.
- Negative serological results do not rule out a rabies infection because antibody levels may not surpass the detection threshold (0.5 IU) and seroconversion is usually very late.

- The sensitivity and specificity of serological tests vary greatly from laboratory to laboratory in spite of the application of international standards.
- Immunofluorescence on unfixed brain tissue is the only recommended test for post-mortem diagnosis.

5.0 Clinical Evidence

Clinically compatible signs and symptoms begin with a feeling of anxiety, cephalalgia, slightly elevated body temperature, malaise and indefinite sensory alterations, frequently around the site of the lesion. The excitation phase that follows is characterized by hyperesthesia, dilation of pupils and increased salivation. As the disease progresses swallowing dysfunction is seen in most patients and there may be spasms of the respiratory muscles and generalized convulsions. Rabies is an acute encephalomyelitis that almost always progresses to coma or death within 10 days after the first symptom.

6.0 ICD Code(s)

ICD 10 Code A82

7.0 Comments

N/A

8.0 References

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