

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Plague

Plague

1.0 Provincial Surveillance

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:

- Isolation of *Yersinia pestis* from an appropriate clinical specimen (e.g., body fluids)
OR
- A significant (i.e., fourfold or greater) rise in serum antibody titre to *Y. pestis* fraction 1 (F1) antigen by enzyme immunoassay (EIA) or passive haemagglutination/inhibition titre

3.2 Probable Case

Clinically compatible signs and symptoms with one of the following laboratory results:

- Demonstration of elevated serum antibody titre(s) to *Y. pestis* F1 antigen (without documented significant [i.e., fourfold or greater] rise) in a patient with no history of plague immunization
OR
- Demonstration of *Y. pestis* F1 antigen by immunofluorescence
OR
- Detection of *Y. pestis* nucleic acid
OR
- >1:10 passive haemagglutination/inhibition titre in a single serum sample in a patient with no history of vaccination or previous infection
OR
- Detection of *Y. pestis* antibody by EIA

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

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

- Positive *Y. pestis* culture with confirmation (See Section 4.2)
- A significant (i.e., fourfold or greater) rise in *Y. pestis* antibody titre

4.2 Approved/Validated Tests

- Standard culture for *Y. pestis* with biochemical confirmation
- *Y. pestis* serology
- Nucleic acid amplification test (NAT) for *Y. pestis*
- Direct fluorescent antibody (DFA) for *Y. pestis* F1 antigen

- Confirmatory methods include combinations of the following methods: specific bacteriophage lysis, DFA for F1 antigen, NAT, haemagglutination/inhibition titres, EIA for *Y. pestis* antibody

4.3 Indications and Limitations

- N/A

5.0 Clinical Evidence

Clinically compatible signs and symptoms are characterized by fever, chills, headache, malaise, prostration, and leukocytosis that is manifested in one or more of the following principal clinical forms:

- Regional lymphadenitis (bubonic plague)
- Septicemia without an evident bubo (septicemic plague)
- Plague pneumonia, resulting from haematogenous spread in bubonic or septicemic cases (secondary pneumonic plague) or inhalation of infectious droplets (primary pneumonic plague)
- Pharyngitis and cervical lymphadenitis resulting from exposure to larger infectious droplets or ingestion of infected tissues (pharyngeal plague)

6.0 ICD Code(s)

ICD 10 Code A20

7.0 Comments

N/A

8.0 References

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