

Appendix B: Provincial Case Definitions for Reportable Diseases

Disease: Lassa Fever

Revised December 2014

Lassa Fever

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

A case with clinically compatible signs and symptoms

AND

Laboratory confirmation of infection:

- Detection of virus-specific ribonucleic acid (RNA) by reverse transcriptase polymerase chain reaction (RT-PCR) from an appropriate clinical specimen (e.g., blood, serum, tissue, urine or throat washings)

AND

- demonstration of virus antigen in an appropriate clinical specimen (e.g. blood, serum, tissue) by enzyme immunoassay (EIA)

OR

One of the above criteria plus laboratory confirmation using at least one of the following:

- demonstration of virus antigen in tissue (e.g., skin, liver or spleen) by immunohistochemical or immunofluorescent techniques
- demonstration of specific Immunoglobulin M (IgM) antibody by EIA, enzyme linked immunosorbent assay (ELISA), immunofluorescent assay or Western Blot
- demonstration of a fourfold or greater rise in Immunoglobulin G (IgG) serum antibody by EIA immunofluorescent assay or Western Blot
- RT-PCR on an independent target gene and/or independent sample or confirmation through another reference laboratory

OR

Isolation of virus from an appropriate clinical specimen (e.g., blood, serum, tissue, urine specimens or throat secretions)

3.2 Probable Case

A case with clinically compatible signs and symptoms and a history, within the 3 weeks before onset of fever, of one of the following:

- Travel in a specific area of a country where an outbreak of lassa fever has recently occurred

OR

- An epidemiologic link with a confirmed or probable case of lassa fever
OR
- Direct contact with blood or other body fluids from a confirmed or probable case of lassa fever
OR
- Works in a laboratory that handles lassa fever virus specimens or in a facility that handles animals with lassa fever

OR

A nucleic acid amplification test (NAAT) positive without laboratory confirmation by another approved or validated test (See Section 4.2)

4.0 Laboratory Evidence

4.1 Laboratory Confirmation

Any of the following will constitute a confirmed case of Lassa fever:

- Positive viral Lassa virus culture
- Positive Lassa virus antigen AND positive NAAT for Lassa virus
- Positive Lassa virus antigen OR positive NAAT for Lassa Virus AND positive by one additional method listed below (See Section 4.2)

4.2 Approved/Validated Tests

- Culture
- NAAT (RT-PCR)
- Antigen detection
- IgM and IgG serology

4.3 Indications and Limitations

- Any testing related to suspected Lassa fever should be carried out under Level 4 containment facilities at the National Microbiology Laboratory

5.0 Clinical Evidence

Acute viral illness lasting one to four weeks. Onset is gradual, with fever, headache, malaise, sore throat, cough, nausea, vomiting, diarrhea, myalgia and chest and abdominal pain. Fever is persistent or spikes intermittently. Inflammation and exudation of the pharynx and conjunctivae are commonly observed. About 80% of human infections are mild or asymptomatic. Disease is more severe in pregnancy; fetal loss occurs in more than 80% of cases and maternal death is frequent. In severe cases, hypotension or shock, pleural effusion, hemorrhage, seizures, encephalopathy and edema of the face and neck are frequent, often with albuminuria and hemoconcentration.

A clinical consultation is necessary for diagnosis.

6.0 ICD Code(s)

ICD 10 Code A96.2

7.0 Comments

- Contact PHO immediately, even in the event of a probable case.
- Travel history information is essential in the identification of possible cases.

8.0 Sources

Advisory Committee on Epidemiology; Health Canada. Case definitions for diseases under national surveillance. Can Commun Dis Rep. 2000;26 Suppl 3:i-iv, 1-122. Available from: <http://publications.gc.ca/collections/Collection/H12-21-3-26-3E.pdf>

Heymann DL, editor. Control of communicable diseases manual. 19th ed. Washington, DC: American Public Health Association; 2008.

Public Health Agency of Canada. Viral hemorrhagic fever. In: Case definitions for communicable diseases under national surveillance. Commun dis Rep. 2009 [cited 2014 May 15];35S2. Available from:

http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/09vol35/35s2/F_Hem_Vir-eng.php

9.0 Document History

Table 1: History of Revisions

Revision Date	Document Section	Description of Revisions
December 2014	General	New template. Title of Section 8.0 changed from “References” to “Sources”. Section 9.0 Document History added.
December 2014	1.0 Provincial Reporting	“Confirmed, probable and suspect cases of disease” changed to “Confirmed and probable cases of diseases”.
December 2014	3.1 Confirmed Case	Entire section revised.
December 2014	3.2 Probable Case	Entire section revised.
December 2014	4.1 Laboratory Confirmation	Entire section revised.
December 2014	4.2 Approved/Validated Tests	Second bullet “NAT” changed to “NAAT (RT-PCR)”.
December 2014	5.0 Clinical Evidence	Entire section revised.
December 2014	7.0 Comments	Entire section revised.
December 2014	8.0 Sources	Updated.

