

Appendix A: Disease-Specific Chapters

Chapter: Lassa Fever

Revised January, 2012

Lassa Fever	
<input checked="" type="checkbox"/> Communicable <input checked="" type="checkbox"/> Virulent	
Health Protection and Promotion Act, Section 1 (1) Health Protection and Promotion Act: Ontario Regulation 558/91 – Specification of Communicable Diseases Health Protection and Promotion Act: Ontario Regulation 559/91 – Specification of Reportable Diseases	
1) Aetiologic Agent:	Lassa fever is an acute viral illness lasting 1-4 weeks; caused by the lassa virus, an arenavirus, serologically related to lymphocytic choriomeningitis, Machupo, Junin, Guaranarito and Sabia viruses (1).
2) Case Definition:	
Surveillance case Definition	See Appendix B
Outbreak Case Definition	<p>The outbreak case definition varies with the outbreak under investigation. Consideration should be given to the following in establishing an outbreak case definition:</p> <ol style="list-style-type: none"> 1. Clinical, laboratory and/or epidemiological criteria 2. A time frame for occurrence 3. A geographic location(s) or place(s) where cases live or became ill/exposed 4. Special attributes of cases (e.g. age, underlying conditions) <p>Cases should also be classified by levels of probability (i.e. confirmed, probable or suspect).</p>
3) Identification:	
Clinical Presentation	<p>Onset is gradual, with malaise, fever, headache, sore throat, cough, nausea, vomiting, diarrhea, myalgia, chest and abdominal pain; fever is persistent or spikes intermittently. Inflammation and exudation of the pharynx and conjunctivae are common (1).</p> <p>About 80% of human infections are mild or asymptomatic and the remaining have severe multisystem disease (1).</p>
Diagnosis	See Appendix B

4) Epidemiology:	
Occurrence	Lassa fever is endemic to Guinea, Liberia, regions of Nigeria and Sierra Leone (1). No cases have been reported in Ontario.
Reservoir	Wild rodents; in western Africa, the multimammate mouse of the <i>Mastomys</i> species complex (1).
Modes of Transmission	Primarily through aerosol or direct contact with excreta of infected rodents deposited on surfaces such as floors, beds or in food and water (1). It can also be spread person to person through sexual contact and in hospitals from infected persons' pharyngeal secretions or urine or from contaminated needles (1).
Incubation Period	Commonly 6-21 days (1).
Period of Communicability	Person to person spread may theoretically occur during the acute febrile phase when virus is present in the throat. Virus can be excreted in urine for 3-9 weeks from onset of illness (1).
Susceptibility and Resistance	All ages are susceptible; the duration of immunity following infection is unknown (1).
5) Reporting Requirements:	
To local Board of Health	Suspect and laboratory confirmed cases shall be reported immediately to the medical officer of health by persons required to do so under the <i>Health Protection and Promotion Act</i> , R.S.O. 1990.
To Public Health Division (PHD)	The board of health shall notify the PHD of the MOHLTC immediately by phone upon receiving report. Report only case classifications specified in the case definition to PHD. Cases shall be reported using the integrated Public Health Information System (iPHIS), or any other method specified by the Ministry within one (1) business day of receipt of initial notification as per <i>iPHIS Bulletin</i> Number 17: Timely Entry of Cases (3). The minimum data elements to be reported for each case is specified in the following: <ul style="list-style-type: none"> • <i>Ontario Regulation 569</i> (Reports) under the Health Protection and Promotion Act (HPPA) • The disease-specific User Guides published by the

	<p>Ministry, and</p> <ul style="list-style-type: none"> • Bulletins and directives issued by the Ministry.
6) Prevention and Control Measures:	
Personal Prevention Measures	For details on personal prevention measures refer to the Ontario VHF Contingency Plan 2002.
Infection Prevention and Control Strategies	<p>Strategies:</p> <ul style="list-style-type: none"> • Strict isolation precautions for hospitalized cases with isolation room preferably negative pressure room and precautions for body fluids and excreta maintained (1).
Management of Cases	<p>Investigate the case to determine source of infection. Refer to ON Regulation 569 under the HPPA for relevant data to collect and ensure to inquire about the following:</p> <ul style="list-style-type: none"> • Symptoms and date of symptom onset • Earliest and latest exposure date • Occupational history and • Travel history <p>Contact identification and tracing:</p> <ul style="list-style-type: none"> • Contact history during period of communicability • Assessment of type of contact and probability of transmission • Identification of contacts for follow-up • Occupational history <p>Specific treatment with Ribavirin within the first 6 days of illness (1) is under the direction of the attending health care provider in consultation with tropical disease specialist.</p>
Management of Contacts	<p>Contacts include: people living with, caring for, testing laboratory specimens from or having non-casual contact with the case, in the 3 weeks after the onset of illness (1).</p> <p>Establish close surveillance of contacts including taking body temperature 2 times daily for 3 weeks after last exposure and if temperature above 38.3 degrees C or 101 degrees F, hospitalize immediately in strict isolation (1). Determine contacts place of residence during 3 weeks prior to onset and search for unreported or undiagnosed cases (1).</p>
Management of Outbreaks	<p>One case constitutes an outbreak. Outbreak management would be a collaborative effort under the direction of provincial and national authority.</p> <p>Outbreak measures could include: (1)</p> <ul style="list-style-type: none"> • Rodent control • Adequate infection control and precautions in hospital and health facilities • Distribution of ribavirin

	<ul style="list-style-type: none"> Contact tracing and follow-up
7) References	<p>(1) Heymann D, editor. Control of communicable diseases manual. 18th ed. Washington: American Public Health Association; 2004.</p> <p>(2) Ministry of Health and Long-Term Care. Viral hemorrhagic fevers (VHFs): contingency plan – Ontario. Toronto: Queen’s Printer for Ontario; 2002. Available from http://www.health.gov.on.ca/english/providers/program/emu/vhf/vhf_plan.pdf.</p> <p>(3) Ministry of Health and Long-Term Care. Timely entry of cases. iPHIS Bulletin. 2012 January;14.</p>
8) Additional Resources	<p>Case definitions for diseases under national surveillance: addition of diseases associated with potential bioterrorist agents. Can Commun Dis Rep. 2002 Nov 1;28(21):173-8. Available from http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/02vol28/dr2821ea.html.</p> <p><i>Health Protection and Promotion Act</i>, R.S.O. 1990, c. H.7. Available from http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90h07_e.htm</p>

