

# Respiratory and Direct Contact

## Leprosy (Hansen's Disease)

Date Reviewed: February, 2011

Section: 2-80

Page 1 of 5

---

---

### Notification Timeline:

**From Lab/Practitioner to Public Health:** Within 48 hours.

**From Public Health to Ministry of Health:** Within 2 weeks.

**Public Health Follow-up Timeline:** Initiate within 72 hours.

### Information

**Case Definition** (Public Health Agency of Canada, May 2008)

<b>Confirmed Case</b>	Clinical evidence of illness (see symptoms) with laboratory confirmation: <ul style="list-style-type: none"><li>• positive acid fast stain with typical morphology for <i>Mycobacterium leprae</i></li><li><b>OR</b></li><li>• histopathological report from skin or nerve biopsy compatible with leprosy</li></ul>
<b>Probable Case</b>	Clinical illness (see symptoms) in a person who is epidemiologically linked to a confirmed case

### Causative Agent

*Mycobacterium leprae*.

**Symptoms** (Public Health Agency of Canada, May 2008)

Tuberculoid or paucibacillary disease: one or a few well-demarcated, hypopigmented and anesthetic skin lesions, frequently with active, spreading edges and a clearing centre; peripheral nerve swelling or thickening may also occur.

Lepromatous or multibacillary disease: erythematous papules and nodules or an infiltration of the face, hands and feet with lesions in a bilateral and symmetrical distribution that progress to thickening of the skin and loss of normal hair distribution, particularly on the face (madarosis).

Borderline (dimorphous): skin lesions characteristic of both the tuberculoid and lepromatous forms.

Indeterminate: early lesions, usually hypopigmented macules, without developed tuberculoid or lepromatous features.



# Respiratory and Direct Contact

## Leprosy (Hansen's Disease)

Date Reviewed: February, 2011

Section: 2-80

Page 2 of 5

---

---

### Incubation Period

9 months to 20 years. Tuberculoid is an average of 4 years, and 8 years for the lepromatous form. Rarely seen in children under 3 years.

### Reservoir/Source

Humans are the reservoir of proven significance however it has been shown that the armadillo, mangabey monkey and chimpanzee can be infected.

### Mode of Transmission

Transmission is person to person with nasal secretions, normally containing the highest bacterial load, often causing infection when spread to the skin or respiratory tract of another. Close contact is necessary for transmission. Untreated multibacillary leprosy (high levels of bacillus) has been proven to be the major source of human transmission.

### Risk Groups/Risk Factors

- Leprosy is a disease of poverty.
- Approximately 95% of people are genetically immune to infection with *M. leprae*.
- HIV clients are not at increased risk of becoming infected.

### Period of Communicability

Clinical and laboratory evidence suggest that infectiousness is lost in most instances within a day of beginning treatment with multidrug therapy (Heymann, 2008).

### Specimen Collection and Transport

For specimen collection instructions, consult with Saskatchewan Disease Control Laboratory (SDCL) Medical Director at (306) 787-8636.

### Methods of Control/Role of Investigator

#### Prevention and Education

Refer to the [Respiratory and Direct Contact Introduction and General Considerations](#) section of the manual that highlights topics for client education that should be considered as well as provides information on high-risk groups and activities.

---

---



# Respiratory and Direct Contact

## Leprosy (Hansen's Disease)

Date Reviewed: February, 2011

Section: 2-80

Page 3 of 5

---

---

- The best preventive measure is early diagnosis and treatment of cases.
- Health education should stress the importance of effective multi-drug therapy, the non-infectivity of persons under continuous treatment and the importance of completing therapy.

### Management

#### I. Case

##### History

- No public health interventions are required; communicability is low, particularly after initiation of treatment.
- Persons with leprosy require medical follow-up from an infectious diseases specialist.
- Manage infectious persons with routine infection control precautions. Handwashing is the most effective measure to prevent transmission when caring for patients.
- Hospitalization is reserved only for managing reactions, surgical correction of deformities and the treatment of ulcers resulting from the anesthesia of the extremities.

##### Treatment/Supportive Therapy

- Consultation with an infectious disease specialist, internist, dermatologist or pediatrician is recommended. See [Appendix H - Sources for Clinical Treatment Guidelines](#).
  - Multi-drug chemotherapy is necessary for all patients. There is widespread prevalence of dapsone resistance, and the emerging resistance to rifampin.

##### Exclusion:

No restrictions in employment or attendance at school are indicated for persons whose disease is regarded as non-infectious.

#### II. Contacts/Contact Investigation

Household and other close contacts should be examined initially, and then annually for at least 5 years. Consult specialist.

---

---



# Respiratory and Direct Contact

## Leprosy (Hansen's Disease)

Date Reviewed: February, 2011

Section: 2-80

Page 4 of 5

---

---

- Manage infectious persons with routine infection control precautions. Handwashing is the most effective measure to prevent transmission when caring for patients.
- Chemoprophylaxis is not recommended.

### III. Environment

Isolation of cases and quarantine of individuals is not necessary and often leads to stigmatization. No restrictions for employment or school are indicated.

### Epidemic Measures

Not applicable.



# Respiratory and Direct Contact

## Leprosy (Hansen's Disease)

Date Reviewed: February, 2011

Section: 2-80

Page 5 of 5

---

---

### References

- Alberta Health and Wellness. (2005). *Public health notifiable disease management guidelines: Leprosy*. Retrieved February, 2011 from <http://www.health.alberta.ca/professionals/notifiable-diseases-guide.html>.
- American Academy of Pediatrics. (2009). *Red book: 2009 Report of the Committee on Infectious Diseases* (28<sup>th</sup> ed.). Elk Grove Village, IL: Author.
- Heymann, D. L. (Ed.). (2008). *Control of communicable diseases manual* (19<sup>th</sup> ed.). Washington, DC: American Public Health Association.
- Last, J. M., & Wallace, R. R. (1992). *Public health and preventive medicine* (13<sup>th</sup> ed.). Norwalk, CT: Appleton and Lange.
- Manitoba Health. (2001). *Communicable disease management protocol manual: Leprosy*. Retrieved February, 2011 from <http://www.gov.mb.ca/health/publichealth/cdc/protocol/index.html>.
- Public Health Agency of Canada. (2008). Case definitions for communicable diseases under national surveillance. *Canada Communicable Disease Report (CCDR)*, 35S2, November 2009. Retrieved February, 2011 from <http://www.phac-aspc.gc.ca/publicat/ccdr-rmtc/09vol35/35s2/Lepr-eng.php>.



## Leprosy Data Collection Worksheet

Please complete all sections.

Panorama QA complete:  Yes  No  
 Initials: \_\_\_\_\_

Panorama Client ID: \_\_\_\_\_  
 Panorama Investigation ID: \_\_\_\_\_

### A) CLIENT INFORMATION

LHN -> SUBJECT -> CLIENT DETAILS -> PERSONAL INFORMATION

Last Name:	First Name: and Middle Name:	Alternate Name (Goes by):
DOB: YYYY / MM / DD    Age: _____	Health Card Province: _____ Health Card Number (PHN): _____	Preferred Communication Method: (specify - i.e. home phone, text): Email Address: <input type="checkbox"/> Work <input type="checkbox"/> Personal
Phone #: <input type="checkbox"/> Primary Home: <input type="checkbox"/> Mobile contact: <input type="checkbox"/> Workplace:		
Place of Employment/School:	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Other <input type="checkbox"/> Unknown	
Alternate Contact: _____  Relationship: _____  Alt. Contact phone: _____	Address Type: <input type="checkbox"/> No fixed <input type="checkbox"/> Postal Address <input type="checkbox"/> Primary Home <input type="checkbox"/> Temporary <input type="checkbox"/> Legal Land Description Mailing (Postal address):  Street Address or FN Community (Primary Home):  Address at time of infection if not the same:	

### B) IMMIGRATION INFORMATION

SUBJECT -> CLIENT DETAILS -> PERSONAL INFORMATION -> IMMIGRATION INFORMATION

Country Born in: _____	Country Emigrated from: _____	Arrival Date: YYYY / MMM / DD	OR	Arrival Year: _____
------------------------	-------------------------------	-------------------------------	----	---------------------

### C) INVESTIGATION INFORMATION

LHN -> SUBJECT SUMMARY -> ZOO NOTIC & VECTORBORNE GROUP -> CREATE INVESTIGATION

Disease Summary Classification:	Date	Classification:	Date	LAB TEST INFORMATION:
<input type="checkbox"/> Confirmed	YYYY / MM / DD	<input type="checkbox"/> Contact	YYYY / MM / DD	Date specimen collected:  YYYY / MM / DD
<input type="checkbox"/> Does Not Meet Case	YYYY / MM / DD	<input type="checkbox"/> Not a Contact	YYYY / MM / DD	
<input type="checkbox"/> Person Under Investigation	YYYY / MM / DD	<input type="checkbox"/> Person Under Investigation	YYYY / MM / DD	
<input type="checkbox"/> Probable	YYYY / MM / DD			

**Disposition:**

*FOLLOW UP:*

- |  |                |   |                |
|--|----------------|---|----------------|
| <input type="checkbox"/> In progress                   | YYYY / MM / DD | <input type="checkbox"/> Complete                   | YYYY / MM / DD |
| <input type="checkbox"/> Incomplete - Declined         | YYYY / MM / DD | <input type="checkbox"/> Not required               | YYYY / MM / DD |
| <input type="checkbox"/> Incomplete - Lost contact     | YYYY / MM / DD | <input type="checkbox"/> Referred - Out of province | YYYY / MM / DD |
| <input type="checkbox"/> Incomplete - Unable to locate | YYYY / MM / DD | (specify where)                                     |                |

**REPORTING NOTIFICATION**

Name of Attending Physician or Nurse: \_\_\_\_\_

Location: \_\_\_\_\_

Physician/Nurse Phone number: \_\_\_\_\_

Date Received (Public Health): YYYY / MM / DD

Type of Reporting Source:  Health Care Facility     Lab Report     Nurse Practitioner     Physician     Other \_\_\_\_\_



## Leprosy Data Collection Worksheet

Please complete **all** sections

Panorama Client ID: \_\_\_\_\_  
Panorama Investigation ID: \_\_\_\_\_

YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				
YYYY / MM / DD				

**D) OUTCOMES**

LHN-> INVESTIGATION-> OUTCOMES

<input type="checkbox"/> Not yet recovered/recovering    YYYY / MM / DD <input type="checkbox"/> Recovered    YYYY / MM / DD <input type="checkbox"/> Fatal    YYYY / MM / DD	<input type="checkbox"/> ICU/intensive medical care    YYYY / MM / DD <input type="checkbox"/> Intubation /ventilation    YYYY / MM / DD <input type="checkbox"/> Other _____ YYYY / MM / DD_	<input type="checkbox"/> Hospitalization    YYYY / MM / DD <input type="checkbox"/> Unknown    YYYY / MM / DD
Cause of Death: (if Fatal was selected) _____		

<b>Initial Report completed by:</b>		<b>Date initial report completed:</b> YYYY / MM / DD
-------------------------------------	--	---