Policy 8.1  Diagnosis and Management of Hansen’s disease

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<th>Diagnosis and management of Hansen’s disease</th>
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<tr>
<td>Policy sponsor</td>
<td>Medical Director, WA TB Control Program</td>
</tr>
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Related WA TB Control Program Policies

1.1  Diagnosis of tuberculosis – Laboratory
1.2  Diagnosis of tuberculosis – Clinical
2.1  Medical treatment of tuberculosis (adults)
2.2  Case management of tuberculosis
3.1  Diagnosis of latent tuberculosis infection
3.2  Treatment of latent tuberculosis infection
4.1  Tuberculosis (active and latent) in children
4.2  Management of tuberculosis in prisoners and immigration detainees
4.3  Tuberculosis (active and latent) in pregnant women
4.4  Tuberculosis and HIV
5.1  BCG Vaccination
6.1  Contact tracing for tuberculosis
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9.1  Management of confidential information for the WA Tuberculosis Control Program
9.2  Client record management policy for the WA Tuberculosis Control Program
9.3  Fees and charges associated with tuberculosis and leprosy treatment

Document Control

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Policy 8.1  Diagnosis and Management of Hansen’s disease

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1.0 Introduction

Hansen’s disease (also known as leprosy) is a chronic, granulomatous infection caused by *Mycobacterium leprae*, an acid-fast bacillus related to the bacteria that causes tuberculosis. It is a disease of peripheral nerves and skin, and also often affects the eyes, upper respiratory tract mucosa, muscle, bone and testes.

Hansen’s disease was thought to have been introduced to Western Australia (WA) in the 1800s and the first Indigenous case described near Broome in 1893. The disease subsequently spread throughout the Kimberley with around 10% of the population affected by the 1950s. Records from the old Leprosarium near Derby estimate that the number of persons diagnosed with Hansen’s disease from the 1880s to 1986 was 1,364.

Hansen’s disease is now an uncommon diagnosis in WA, therefore contact tracing and opportunistic diagnosis by primary health workers has replaced community surveys as the main case finding strategy. Early diagnosis and single-dose prophylactic rifampicin therapy to high-risk contacts that have no signs of the disease at the time of diagnosis of the index case are important steps in leprosy control.

Hansen’s disease in WA has for some time now been streamlined through a central Hansen’s disease clinic at the former Perth Chest Clinic (now known as the Anita Clayton Centre), together with on-going interventions undertaken at the regional Public Health Units, and services provided by the community health nurses and district medical officers throughout WA

2.0 Epidemiology

Hansen’s disease is a rare disease in Australia with the majority of cases occurring in Indigenous Australians and migrants from leprosy endemic countries. Since 1991, WA receives about 2 notifications of leprosy per year (Table 1) with an annual crude rate of 0.1 per 100,000 population (Department of Health Western Australia, 2012).

The global registered prevalence of leprosy at the beginning of 2011 stood at 192,246 cases, with nearly 60% of cases occurring in the South East Asia WHO region (World Health Organisation, 2011a). High prevalence countries include: India, Brazil, Indonesia, Sudan, Ethiopia, Democratic Republic of Congo, Nigeria, Bangladesh, China, Philippines and Myanmar (World Health Organisation, 2011a).
Table 1: Number of notifications of leprosy, received from State and Territory health authorities in the period of 1991 to 2011.

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Source (Department of Health and Ageing, Australia, 2012)
Although historically, most of the cases diagnosed with Hansen’s disease in WA were in the Indigenous community, recent cases have been predominately in people who acquired their disease overseas in high endemic countries. Consideration of a person’s background and possible overseas exposure is important when assessing symptoms suggestive of leprosy (Figure 1).

3.0 Case definition

Western Australia follows the 2004 endorsed National Notifiable Diseases Surveillance System (NNDSS) case definition for Hansen’s disease (or leprosy). Only confirmed cases are reported nationally.
**Confirmed case**
A confirmed case requires laboratory definitive evidence AND clinical evidence.

**Laboratory definitive evidence**

1. Demonstration of characteristic acid fast bacilli in split skin smears and biopsies prepared from the ear lobe or other relevant sites; OR
2. Histopathological report from skin or nerve biopsy compatible with leprosy (Hansen's disease) examined by an anatomical pathologist or specialist microbiologist experienced in leprosy diagnosis.

**Clinical evidence**

1. Compatible nerve conduction studies; OR
2. Peripheral nerve enlargement; OR
3. Loss of neurological function not attributable to trauma or other disease process; OR
4. Hypopigmented or reddish skin lesions with definite loss of sensation.

**4.0 Clinical Guidelines**

The Department of Health and Families, Northern Territory Government have published the very comprehensive *Guidelines for the Control of Leprosy in the Northern Territory 2010* (3rd edition). This publication contains detailed information on:

1. Classification of leprosy (Ridley-Jopling and WHO methods)
2. Clinical features of leprosy
3. Assessment and investigation of leprosy
4. Treatment
5. Contact tracing
6. Nerve function impairment (NFI)
7. Treatment of NFI and lepra reactions.


**5.0 BCG Vaccination**

The Bacille Calmette-Guérin (BCG) vaccine provides some protection against *Mycobacterium leprae*. In WA, BCG vaccination is recommended in newborn children of parents with leprosy or a family history of leprosy (Department of Health Western Australia, 2009). Unlike the policy in the NT, BCG vaccination is no longer routinely recommended for newborn Aboriginal and Torres Strait Islanders in Western Australia living north of the Tropic of Capricorn. The justification for this change in policy is discussed in the WA
Department of Health Information Circular IC 0062/09 *BCG Vaccination Schedule for Tuberculosis Control* and the WA TB Control Program policy 5.1 *BCG Vaccination*.

### 6.0 Contact

For any questions relating to Hansen’s disease please contact:

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1/311 Wellington St (corner Wellington & Pier Streets)  
Perth WA 6000  
T: (08) 9222 8500  
F: (08) 9222 8501  

### 7.0 Acknowledgement

The Anita Clayton Centre would like to acknowledge Dr Vicki Krause, Director, Centre for Disease Control, Department of Health, Northern Territory Government for granting permission for the WA TB Control Program to reference the guidelines for leprosy produced in the Northern Territory.

### 8.0 Works Cited


**Feedback or comments related to this policy should be addressed to the Medical Director, WA TB Control Program, Justin.Waring@health.wa.gov.au**