LEPROSY CONTROL IN SOUTH AFRICA

LEPROSY CAN BE CURED

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Compiled by the Department of Health in collaboration with the Leprosy Task Group and The Leprosy Mission (Southern Africa)

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ABSTRACT

Leprosy, a communicable disease , caused by Mycobacterium leprae, is a notifiable medical condition. Notificatiopns in 1992 gave an estimated prevalence of 0.37/10 000 of the population, with most of the cases occurring in the Eastern coastal areas and the South-Eastern Highveld. Although the prevalence of leprosy is low, about 4000 people in South Africa need medical and social care. Hospitalisation is no longer recommended for leprosy patients as the emphasis now on treatment in the community. New cases of leprosy are at risk of becoming disabled, especially if not diagnosed early or treated appropriately.

This document is issued by the Department of Health. The objective is to provide those involved in the treatment of leprosy with a clear and practical guide. The outcome aimed for is higher awareness of leprosy, which would contribute to timeous and appropriate treatment.

The development of this document was initiated by the Department of Health and the Leprosy Task Team Group, a committee consisting of experts in the field of leprosy. The draft document was also subject to review by the Communicable Disease Control Officers of the nine provinces and The Leprosy Mission (Southern Africa). The final concept was compiled by Dr Rajendra Maharaj, Directorate for Communicable Disease Control, national Department of Health.

The contents deal with the prevalence of leprosy in South Africa, the detection of leprosy cases, the procedures to be adopted in cases of suspected leprosy, diagnosis, classification of leprosy and the treatment of the disease are also dealt with in this document. Telephone numbers of the leprosy clinics throughout the country are also provided as well as the contact numbers of the people in charge of these clinics. The contact details of the dermatologists dealing with leprosy in each province are also provided. Annexures outlining the categorization and treatment of leprosy are also provided.

CONTENTS

INTRODUCTION

Leprosy , a communicable disease, caused by Mycobacterium leprae, was declared a notifiable disease in South Africa in 1921. Notifications in 1992 gave an estimated prevalence of 0.37/10 000 of the population, with a concentration of cases in the Eastern coastal areas and the South-Eastern Highveld.

Prevalence in South Africa is below 1 per 10 000 of the population, the World Health Organization (WHO) cut off point for considering leprosy as a Public Health problem. Hospitalisation for treatment was compulsory until 1977. The emphasis today is on treatment in the community. The Leprosy Mission (Southern Africa) states that about 4 000 people in South Africa, though no longer suffering from active disease, need medical and social care. New cases of leprosy are at risk of becoming disabled, especially if not diagnosed early or treated appropriately.

A national policy is required to ensure the utilization of current expertise and resources in developing a targeted approach to leprosy control in South Africa. The national policy aims to prevent transmission, treat patients at early stage of the disease and care for and rehabilitate those people, who are " cured", no longer infectious, but are still disabled by leprosy. This disability is at risk of increasing because of the loss of awareness of pain.

GOAL AND OBJECTIVES

GOAL

The goal of the leprosy programme is to decrease the current prevalence of leprosy in order to move towards the eradication of leprosy.

OBJECTIVES

The objectives of the programme are to:

1. Develop standard guidelines for the early diagnosis and management of cases and update these regularly.
2. Prevent disability and rehabilitate all disabled patients.
3. Establish a central register and measure the treatment outcomes.
4. Ensure that there is at least one medical doctor with leprosy expertise in each teaching hospital to which leprosy cases can be referred, and whose records are linked to the central register.
5. Ensure that the early diagnosis of leprosy is included in the PHC training material of health professionals.

DISEASE MANAGEMENT

DETECTION OF LEPROSY CASES

A case of leprosy is defined as a person in need of/ or on chemotherapy for leprosy.
When prevalence is low, as in South Africa, the following are recommended:

- Assist health workers to recognize the early signs and symptoms;
- Examine all household and other close contacts of new cases
- Increase neighbourhood awareness, which leads to self reporting.

PROCEDURES TO BE ADOPTED IN CASES OF SUSPECTED LEPROSY

History of known contact with leprosy is most important and should result in a high index of suspicion.
Initial screening by a local dermatology department is preferred where available (see Annexure A). Suspected cases seen at health centre level should be referred to the nearest provincial leprosy centre were the patient should be managed in full.

DIAGNOSIS

Diagnosis should be:

- Based on clinical signs and symptoms of leprosy; and
- Confirmed by a punch biopsy or skin smear (where the expertise exists)

Symptoms of leprosy

Early signs and symptoms of leprosy include:

- Diminished sensitivity to cotton wool touch, in a patch on the skin; and
- Enlargement of peripheral nerves in specific sites.

Both signs should be present to make a diagnosis and treatment should be started at once.

Confirmation by a biopsy

A punch biopsy should be carried out to confirm the diagnosis if at all possible. The punch biopsy tool is readily available at a minimal cost.

The biopsy should be a punch biopsy on the edge of the lesion so that it includes affected and normal skin, including the deep dermis.

CLASSIFICATION

Before starting treatment, it is essential to classify a Leprosy patient's condition. This should be done according to the Ridley and Jopling classification for distinguishing between tuberculoid and lepromatous leprosy (see Annexure B). For the purposes of multidrug therapy, patients are also classified as Paucibaccilary(smear negative, or Multibacillary (smear positive).

REFERRAL AND TREATMENT CENTRES

The provincial Departments should identify a diagnostic referral centre(s). A list of approved referral centers (diagnostic centers), should be available and accessible to health workers at all times (Annexures C and D). To prevent delay in confirmation of diagnosis and treatment, the details required by the referral centre should be clearly stated.

TREATMENT

Treatment programmes should form part of a community health service and the WHO recommended Multidrug Treatment (MDT) regimen should be prescribed (Annexure E). Anti –leprosy treatment should continue for 6 months(PBL) and 12 months (MBL). Only if the lesions do not look healed should the patient be referred for the lesions do not look healed be patient be referred for expert opinion.

REHABILITATION

Programmes for the disabled should community based, following a holistic approach. These people are in need of physical, psychological, spiritual, social and economic rehabilitation. The Leprosy Mission can help to mobilize support for the patient in the community.

PROGRAMME MANAGEMENT

IMPLEMENTATION

National level

The following essential activities will be the responsibility of the national Department of Health in collaboration with The Leprosy Mission (Southern Africa):

- To keep and maintain one national leprosy register, linked to provincial registers.
- To produce an annual report based on the central register.
- To arrange for a leprosy expert to act as consultant to the Department of Health and other interested parties.

Provincial level

This level will be responsible for the following:

- Confirmation of diagnosis- a punch biopsy should be taken and sent to the national leprosy consultant;
- Initiation of treatment;
- Return of patients to the referring institution for continuation of treatment;
- Notification of cases;
- Providing advice to health workers on the recognition and management of complications;
- Admission of patients to the general wards for the treatment of reactions and complications if necessary.

At a peripheral level

- Health workers should be able to recognise (early) signs and symptoms of leprosy (Annexure F). Suspect cases need referral to a referral centre (where available): the dermatology department of an academic centre or a dermatologist in one of the hospitals.
- Clinics remain responsible for total personal care.
- After diagnosis at the referral centre, where treatment commences, the patient needs to attend the health centre monthly to
    - Continue the treatment for the recommended period;
    - Receive care for ulcers if needed;
    - To receive health education and to be taught self care for ulcers;
    - Have sensory and motor functions tested(at least three monthly); to prevent (further) disabilities;
    - Receive footwear and other protective devices where applicable.
        - In cases of reactions and complications the referral needs to be consulted.
        - Assist the patient by informing the family and employer of the diagnosis, treatment and the disease, so that stigmatization is minimized.
        - Psychological support to the patient to enable patients to deal with the condition.

NOTIFICATIONS AND SURVEILLANCE

Notification to the Department of Health is done on the GW 17/3 form (for cases) and GW 17/4 form (for deaths). The completed GW 17/3 and GW 14/4 forms are sent weekly from local authority to district offices to the appropriate provincial office and then to the national Department of Health.

The procedure for the notification of leprosy patients should be that the diagnostic (referral) centre concerned should send a letter to the letter to the local or district authority where the patient resides to inform them of the diagnosis, so that appropriate follow-up of contacts can be done. A copy should be sent directly to the provincial referral centre. The local or district authority should be responsible for sending the notification of all positively diagnosed patients to the appropriate provincial office.

Surveillance allows the identification of geographically high risk areas, so that a targeted approach can be followed to eliminate leprosy. Monitoring and evaluation of leprosy control activities should be done.

THE ROLE OF THE LEPROSY MISSION (SOUTHERN AFRICA)

The Leprosy Mission (Southern Africa) is part of the Leprosy Mission International. Its work includes the training of medical and health workers regarding leprosy. They are involved in monitoring medication compliance and post MDT follow-up.

Patients with WHO grade I and II deformity are followed up with a deformity preventio programme. Their task is to –orientate patients into their communities, provide an assessment of their social needs and train or retrain those who are dependant in order that they may become self-sufficient. Needs are assessed and training and net-working with the community –based rehabilitation programees is provided. The Leprosy Mission can assist by providing professional support in rehabilitation, patient-and family support) home-care programme), patient –tracing and control programmes.

ANNEXURE A

LIST OF DERMATOLOGISTS ASSISTING THE LEPROSY MISSION

PROVINCE	DERMATOLOGIST	TELEPHONE NUMBER	FAX NUMBER
Eastern Cape	Dr V Esprey	0403-618 2111 ask for dermatology	0403-61 1158
Free State	Dr R Odendaal	051- 405-2324	051-448 2544
Gauteng	Dr L Wentzel	012 335-3303	012-335 3303
Kwazulu-Natal	Dr M Moodley	031-907 1833	031-904 3439
Mpumalanga	Dr L Wentzel	012-335 3303	012-335 3303
North-West	Dr K Lee	018-462 6838	018- 462 4253
Northern Province	Dr L Wntzel	012-335 3303	012-335 3303
Northen Cape	Dr L Sinclair	0531-81 3372	0531-81 4878
Western Cape	Dr G Todd Prof J Celliers	021-404 3376 021-938 9453	021-47 8232 021-932 9071

ANNEXURE B

HISTORICAL CLASSIFICATION OF LEPROSY

Historical Feature	TT	BT	BB	BL	LL
Granuloma	Ephitheloid cells With or without Giant cells, in Foci	Like TT	Epitheloid cells but not giant cells	(a) Histiocytes evolving to epitheloid cells; scanty foamy change. Lymphocytes scanty. (b) Histiocytes sometimes foamy; no large globi.Many lymphocytes	*Active*: Macrophsges round or spindle –shape, With very many bacilli *Regressive:* Histocytes with fatty change; foam cells or globi often large; multinucleate
Lymphocytes	Dense zone of Infiltration Round foci of granuloma	Like TT	Usually scanty. If present they are diffusely through granuloma	(a) Scanty (b) Numerous occupying whole segments of granuloma,or forming perineural cuffs	Scanty, diffuse
Nerves	Those in Granuloma Usually Destroyed Beyond Recognition Occassional Caseation	Greatly swollen by Schwann cell proliferation. Perineural sheath intact	Moderate Schwann cell proliferation. Sheath intact	No cell proliferation in Nerve bundle, which is often structureless. May be infiltration of histiocytes lin perineurium	May show structural damage but not infiltration or cuffing
Subepidermal Zone	Granuloma extends to basal layer of epidermis.No clear zone	Clear subepiderm zone,usuall narrow	Clear subepiderma zone, broad or narrow	Like BB	Like BB
Bacilli in granuloma	None seen	0-3+	3-5+	5 or 6+	5 or 6+

TT-Tuberculoid, BT-Borderline tuberculoid, BL- Borderline lepromatous, LL- Lepromatous

ANNEXURE C

LIST OF LEPROSY CLINICS

PROVINCE	HOSPITAL	TELEPHONE NUMBER	FAX NUMBER
GAUTENG	1. Vereeniging Hospital 2. Chris Hani Baragwanath 3. Boksburg/ Benoni Hospital 4. Kalafong Hospital 5. Sizwe/ Rietfontein Hospital	061-281133 011-9331100 011- 892144 012-3186400 011-8829810	016-281168 011-9333135 011-9173978 012-3734710 011-8829992
MPUMALANGA	1. Piet Retief Hospital 2. Ermelo Hospital 3. Embuleni Hospital 4. Bethal Hospital 5. Standerton Hospital 6. Kabokweni Hospital 7. Witbank Hospital 8. Philadelphia Hospital 9. Shongwe Hospital	01782-22214 01781-2031 017-8830093 0172-2141 017-7122323 013-7960201 0135-6562111 013-9830112 013-7810219	01782-50044 01781-5104 017-8830093 0172-1327 017-7191112 0135-903614 013-9831016
NORTHERN PROVINCE	1. Letaba Hospital 2. Tshilidzini Hospital 3. Mangkweng Hospital 4. St Ritas Hospital 5. Warmbath's Hospital	0152-3031711 0159-41061 015-2670330 013-2981004 014-7362121	0152-3030207 0159-41492 014-7365470
NORTH WEST	1. Tshepong Hospital 2. Jubilee Hospital 3. Rustenberg Hospital 4. Bophelong Hospital 5. Taung Hospital	018-4653999 01464-2011 0142-22112 0140-832005 01405-41805	01464-2011 0140-832005 01405-41436
FREE STATE	1. Pelonomi Hospital 2. Bethlehem Hospital 3. Welkom Hospital 4. Kroonstad 5. Manapo Hospital	051-4091911 058-3035331 057-9165555 0562-51881 058-7131884	058-3034592 0562-32626 058-7130660

EASTERN CAPE	1. Umtata Hospital 2. Butterworth Hospital 3. Maluti Clinic 4. Nessie Knight Hospital 5. Umzimkulu Hospital 6. Cecilia Makewani Hospital 7. Thornhill Clinic 8. Mooiplaas Clinic 9. Sotho Clinic 10. Komga Clinic 11. Shauderville Clinic	0471 – 25171 0474 – 4161 039 – 256011 0471 – 26253 038 – 2590237 0403 – 6182111 no phone 04372 – 4903 04372 – 4903 043 – 8311013 04372 - 4912	 0403- 6181158 043 - 83111338
NORTHERN CAPE	1. Kimberly Hospital 2. Upington Hospital	0531 – 8029111 054 – 24011	0531 – 8022430 054 - 24699
KWAZULU/ NATAL	1. Madadeni Hopsital 2. Edendale Hospital 3. Impendle Clinic 4. Polela Clinic 5. Gqumeni Clinic 6. Kilmon Clinic 7. Ngwelezana Hospital 8. Ladysmith Hospital 9. Untunjambili Hospital 10. Amazizi Hospital 11. Dukuza Hospital 12. Manguzi Hospital 13. Prince Mshiyeni Hospital	03431 – 49221 0331 – 954911 033 – 9960852 033 – 689452 033 – 8221402 no Phone 0351 – 942311 0361 – 22111 03344 – 41818 036 – 4386763 035 – 5920150 031 – 9078111 036 - 4482743	03431 – 49221 0331 – 954031 0351 – 941684 0361 – 26457 03344 – 41987 035 – 5920150 031 - 9073334
WESTERN CAPE	1. Grootte Schuur Hospital 2. Tygerberg Hospital	021 – 4049111 021 – 9384911	021 – 4044248 021 - 9311451

ANNEXURE D

PERSONS AT THE LEPROSY MISSION (SOUTHERN AFRICA) RESPONSIBLE FOR THE LEPROSY CLINICS

PROVINCE	RESPONSIBLE PERSON	TELEPHONE NUMBER	FAX NUMBER
Mpumalanga Northern Province	Sister Anita Fourie	(011) 440 – 6323 082 920 3718	(011) 440 - 6324
Gauteng North-West Free State Northern Cape	Sister Mercia Tellie	(011) 440 – 6323	(011) 440 – 6324
KwaZulu – Natal	Sister Elena Jordaan	(031) 907 – 1833 082 920 3716	(031) 906 1059
Eastern Cape Western Cape	Mr Frikkie Naude	083 272 1268	

Social Worker, Erna Moller is responsible for the whole of South Africa, but concentrates her work in the areas in and around Gauteng.

ANNEXURE E

TREATMENT OF LEPROSY

RATIONAL FOR USING WHO MDT

These treatment regimens developed by a WHO expert group have proved to be extremely effective, and reduced the global prevalence by more than 80% over the last ten years. It rapidly cures patients, interrupts further transmission of the disease and makes elimination of the diseases as a global health problem a possibility.

MDT-Multi Drug Treatment

All newly diagnosed cases must be started on an appropriate MDT regimen immediately, the WHO –MDT regimes are "robust",i.e their efficacy are not impaired by minor irregularities in compliance.

MDT DRUGS

The drugs used in WHO-MDT are a combination of Rifampacin, Clofazamine and Dapsone

Please use only prepacked MDT in combi/bubble packs where available.

Rifampacin

The drug is given once a month. toxic effects have rarely been reported in the case of a monthly administration. The urine may be slightly reddish in colour for a few hours after its intake

Clofazimine

Clofazimine is most active when administered daily, is well tolerated and virtually non-toxic in the dosage used for MDT. The drug may cause brownish-black discolouration and dryness of the skin. This disappears within a few months of stopping treatment and should be explained to the patient starting the MDT regimen for MB leprosy.

Dapsone

Dapsone is very in the dosage used in MDT .Side-effects are rare but the main one is allergic reaction,causing itchy skin rashes and exfoliative dermatitis. Therefore, patiens known to be allergic to any of the sulpha drugs should not be given dapsone.

Adult Dosage(MULTIBACILLARY LEPROSY) **Child dosage (MULTIBACILLARY LEPROSY 10-14 years)**

Drug	**Day 1**	**Day 2-28**	**Drug**	**Day 1**	**Day 2-28**
Rifampicin	**600mg**	**-**	**Rifampicin**	**450mg**	**-**
Clofazimine	**300mg**	**50mg**	**Clofazimine**	**150mg**	**50mg/alt days**
Dapsone	**100mg**	**100mg**	**Dapsone**	**50mg**	**50mg**

12 Month course to be completed within a period of 12 to 15 months

Adult Dosage (PAUCIBACILLARY LEPROSY) Child dosage (PAUCIBACILLARY LEPROSY 10-14 years)

Drug	Day 1	Day 2-28	Drug	Day 1	Day 2-28
Rifampicin	600mg	-	Rifampicin	450mg	-
Clofazimine	-	-	Clofazimine	-	-
Dapsone	100mg	100mg	Dapsone	50mg	50mg

6 Month course to be completed within a period of 6 to 9 months.

FOR CHILDREN BELOW 10 YEARS AGE THE DOSE MAY BE ADJUSTED, FOR EXAMPLE:

RIFAMPACIN 300 mg, DAPSONE 25 mg and CLOFAZIMINE 100 mg ONCE A MONTH AND 50 mg TWICE A WEEK IN CASE OF MULTIBACILLARY LEPROSY

ANNEXURE F

MINIMAL ACCEPTABLE TRAINING STANDARDS IN LEPROSY FRO GENERAL HEALTH STAFF

Introduction

In order to continue leprosy work in the future, training of the general health personnel to handle available tools in the field if crucial. The number of trainees will increase enormously and the contents and the methodology have to be adapted.

This following is an outline for minimal acceptable standards in areas where detection rtes are less than 1 or 2 per 10,000 per year. Such low detection rates imply that the general health workers will not see more than two or three new leprosy patients per year.

Some people will argue that health staff should know more than what is outlined. However, this recommendation is to create a manual on minimal acceptance standard in an ideal situation.

In principle, we meet two different types of circumstances:-

1) Where there is a supervisor who is competent in leprosy at district level, to who patients can easily be sent or who can easily be called upon,

2) Where the nearest competent supervisor is perhaps at regional or national level.

(A supervisor may not be 100% involved in leprosy work bur leprosy could be just one of the components of his/her work).

Under the first circumstance not most important skill health worker should have is a high level of sensitivity towards leprosy and its complications.

Under the second circumstance not only sensitivity but also specificity is required (to minimize false positive diagnoses) and this should be reflected in different types of training programmes.

This recommendation will first outline minimal acceptable standards for health workers who can still rely upon a supervise\or who is competent in leprosy, and in the second section deal with the additional training requirements for health staff who can not easily call upon the expertise of supervisor at district level. In practice there will be less clear cut situations but it should not be too difficult to adapt a manual to them.

1) Where there is a supervisor who is competent in leprosy at district level

This is the situation to aim for. If there are district where there is no one to whom the health worker can refer to, this should be corrected.

Where there is a competent supervisor, health staff should at least be able to:-

1) **Suspect leprosy,** in particular early leprosy before the onset of nerve damage. To know the procedure for referral

2) **treat leprosy** according to the national guidelines and whenever side effects of the treatment are suspected refer to the supervisor

3) **suspect reactions,** in particular neuritis and organize the referral of such patients as a matter of urgency

4) **give health education** to patients and their community. Conduct examination of household contacts

5) **prevent/manage disabilities** as advised by the district supervisor who will have seen each patient before the start of anti-leprosy treatment

6) **keep basic treatment records**

2) Where there is no supervisor competent in leprosy

Sometimes, for example where the health care infrastructure is lacking, health staff who cannot refer their suspects to a supervisor need to know more than that outlined above. They need, in addition, to be able to:

7) Examine suspects and **diagnose leprosy**

8) Classify leprosy and **give appropriate treatment**

9) **Diagnose reactions and arrange for appropriate treat**

10) **Prevent and treat disabilities** according to the findings at the initial (complete) examination

11) **Complete patients' records**

General considerations

- It is necessary to develop minimal training standards for supervisors.
- It is recommended to develop, in cooperation with a training centre, a comprehensive, problem-and task-oriented model manual, which permits project managers to write their own guidelines to enable general health staff to perform a clearly defined job.

For more copies of this documents, complete and send to:

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LEPROSY CONTROL IN SOUTH AFRICA

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