

NATIONAL LEPROSY ERADICATION PROGRAMME

Class: B.Sc.(N) IV yr
Subject: CHN- II
Unit : VI

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Introduction

Leprosy, also known as Hansen's disease, is a chronic infectious disease caused by *Mycobacterium leprae*. The disease mainly affects the skin, the peripheral nerves, mucosal surfaces of the upper respiratory tract and the eyes. Leprosy is known to occur at all ages ranging from early infancy to very old age. Leprosy is curable and early treatment averts most disabilities.

Transmission

The exact mechanism of transmission of leprosy is not known. At least until recently, the most widely held belief was that the disease was transmitted by contact between cases of leprosy and healthy persons. More recently the possibility of transmission by the respiratory route is gaining ground. There are also other possibilities such as transmission through insects which cannot be completely ruled out.

Classification

Leprosy can be classified on the basis of clinical manifestations and skin smear results. In the classification based on skin smears, patients showing negative smears at all sites are said to have paucibacillary leprosy (PB), while those showing positive smears at any site are said to have multibacillary leprosy (MB).

Signs/symptoms and diagnosis

Clinical signs are easy to observe. In a country or area with a high incidence of leprosy, an individual should be regarded as having leprosy if he or she shows ONE of the following cardinal signs:

- skin lesion consistent with leprosy and with definite sensory loss, with or without thickened nerves
- positive skin smears

The skin lesion can be single or multiple, usually less pigmented than the surrounding normal skin. Sometimes the lesion is reddish or copper-coloured. A variety of skin lesions may be seen but macules (flat), papules (raised), or nodules are common. Sensory loss is a typical feature of leprosy. The skin lesion may show loss of sensation to pin pick and/or light touch. Thickened nerves, mainly peripheral nerve trunks constitute another feature of leprosy. A thickened nerve is often accompanied by other signs as a result of damage to the nerve. These may be loss of sensation in the skin and weakness of muscles supplied by the affected nerve. In the absence of these signs, nerve thickening by itself, without sensory loss and/or muscle weakness is often not a reliable sign of leprosy.

Treatment: The use of the 3-drug regimen comprising rifampicin, dapsone and clofazimine is recommended for all leprosy patients, with duration of treatment lasting 6 months for paucibacillary leprosy and 12 months for multibacillary leprosy. The potential advantage of using the same three

drugs for both forms of the disease is simplification of treatment. For patients who are resistant to rifampicin, two of the following drugs are recommended: clarithromycin, minocycline or a quinolone (ofloxacin, levofloxacin or moxifloxacin), plus clofazimine daily for 6 months, followed by clofazimine plus one of the second-line drugs daily for an additional 18 months. For patients resistant to rifampicin and ofloxacin, clarithromycin, minocycline and clofazimine may be used for 6 months, followed by clarithromycin or minocycline plus clofazimine for an additional 18 months. For adults and children (aged above 2 years) who are in regular contact with leprosy patients, the guidelines recommend the use of single-dose rifampicin.

Access to treatment: Multidrug therapy (MDT), first recommended by a WHO Expert Committee in 1984, rapidly became the standard treatment of leprosy and has been supplied by WHO free of charge to all endemic countries since 1995.

National Leprosy Eradication Program is a health scheme of the Ministry of Health and Family Welfare, Government of India to eradicate leprosy in India. It was launched in 1983 as a continuation of the National Leprosy Control Program of 1955.

The National Leprosy Control Programme was launched by the Govt. of India in 1955. Multi Drug Therapy came into wide use from 1982 and the National Leprosy Eradication Programme was introduced in 1983. Since then, remarkable progress has been achieved in reducing the disease burden. India achieved the goal set by the National Health Policy, 2002 of elimination of leprosy as a public health problem, defined as less than 1 case per 10,000 population, at the National level in December 2005. In 2009, a special action plan for 209 high endemic districts in 16 states/union territories were made.

The National Leprosy Eradication Programme is a centrally sponsored Health Scheme of the Ministry of Health and Family Welfare, Govt. of India. The Programme is headed by the Deputy Director of Health Services (Leprosy) under the administrative control of the Directorate General Health Services Govt. of India. While the NLEP strategies and plans are formulated centrally, the programme is implemented by the States/UTs. The Programmes also supported as Partners by the World Health Organization, The International Federation of Anti-leprosy Associations (ILEP) and few other Non-Govt. Organizations.

Following are the programme components :

- Case Detection and Management
- Disability Prevention and Medical Rehabilitation
- Information, Education and Communication (IEC) including Behaviour Change Communication (BCC)
- Human Resource and Capacity building
- Programme Management

Objectives

- Early detection through active surveillance by the trained health workers;
- Regular treatment of cases by providing Multi-Drug Therapy (MDT) at fixed in or centres a nearby village of moderate to low endemic areas/district;
- Intensified health education and public awareness campaigns to remove social stigma attached to the disease.
- Appropriate medical rehabilitation and leprosy ulcer care services.

XII th Plan Objectives:

- Elimination of leprosy i.e. prevalence of less than 1 case per 10,000 population in all districts of the country.
- Strengthen Disability Prevention & Medical Rehabilitation of persons affected by leprosy.
- Reduction in the level of stigma associated with leprosy.

Strategies for Leprosy elimination in India

The strategy of NLEP are establishing a decentralized, integrated leprosy service which ensures early detection and complete treatment of leprosy. Carrying out surveys for detection of multibacillary leprosy and leprosy in children, and early diagnosis with prompt multi-drug therapy are also goals of NLEP. Involvement of ASHAs, strengthening disability prevention services and conducting health education classes are also a part of the program.

- Decentralized integrated leprosy services through General Health Care system.
- Early detection & complete treatment of new leprosy cases.
- Carrying out house hold contact survey in detection of Multibacillary (MB) & child cases.
- Early diagnosis & prompt MDT, through routine and special efforts
- Involvement of Accredited Social Health Activists (ASHAs) in the detection & complete treatment of Leprosy cases for leprosy work
- Strengthening of Disability Prevention & Medical Rehabilitation (DPMR) services.
- Information, Education & Communication (IEC) activities in the community to improve self-reporting to Primary Health Centre (PHC) and reduction of stigma.
- Intensive monitoring and supervision at Primary Health Centre/Community Health Centre.

Milestones in NLEP

- **1955** - National Leprosy Control Programme (NLCP) launched
- **1983** - National Leprosy Eradication Programme launched
- **1983** - Introduction of Multidrug therapy (MDT) in Phases
- **2005** - Elimination of Leprosy at National Level
- **2012** - Special action plan for 209 high endemic districts in 16 States/UTs

Institutions

Four premier Leprosy Institutes are working under Directorate General of Health Services, Ministry of Health & F.W., Government of India viz. CLTRI, Chengalpattu, RLTRI, at Aska, Raipur and Gouripur are involved in research (basic and applied) in Leprosy and Training of different categories of staff involved for Leprosy elimination. These Institutes also play important role in management of referral patients, providing quality care to chronic ulcer and disabled patients with the help of Minor & Major Reconstructive Surgeries. These Institutes also help in supervising and providing consultancy services to the State NLEP Units for better programme planning and implementation.

1. Central Leprosy Teaching & Research Institute (CLTRI) Chengalpattu (Tamilnadu)
2. Regional leprosy training & research institute (RLTRI) raipur (chhattisgarh)
3. Regional leprosy training & research institute (RLTRI) aska (orissa)
4. Regional leprosy training & research institute (RLTRI), gouripur, bankura (west Bengal)

Activities under NLEP

- Diagnosis and treatment of leprosy- Services for diagnosis and treatment (Multi drug therapy) are provided by all primary health centres and govt. dispensaries throughout the country free of cost. Difficult to diagnose and complicated cases and cases requiring reconstructive surgery are referred to district hospital for further management.
- Training- Training of general health staff like medical officer, health workers, health supervisors, laboratory technicians and ASHAs are conducted every year to develop adequate skill in diagnosis and management of leprosy cases.
- Urban leprosy control- To address the complex problems in urban areas, the Urban Leprosy control activities are being implemented in urban areas having population size of more than 1 lakh. These activities include MDT delivery services & follow up of patient for treatment completion, providing supportive medicines & dressing material and monitoring & supervision.
- IEC- Intensive IEC activities are conducted for awareness generation and particularly reduction of stigma and discrimination against leprosy affected persons. These activities are carried through mass media, outdoor media, rural media and advocacy meetings. More focus is given on inter personnel communication.
- NGO services under SET scheme- Presently, 43 NGOs are getting grants from Govt. of India under Survey, Education and Treatment (SET) scheme. The various activities undertaken by the NGOs are, IEC, Prevention of Impairments and Deformities, Case Detection and MDT Delivery. From financial year 2006 onwards, Grant-in-aid is being disbursed to NGO through State Health (Leprosy) Societies.
- Disability Prevention and Medical Rehabilitation –For prevention of disability among persons with insensitive hands and feet, they are given dressing material, supportive medicines and micro-cellular rubber (MCR) footwear. The patients are also empowered with self-care procedure for taking care of themselves. More emphasis is being given on correction of disability in leprosy affected persons through reconstructive surgery (RCS). To strengthen RCS services, GOI has recognized 112 institutions for conducting RCS based on the recommendations of the state government. Out of these, 60 are Govt. institutions and 52 are NGO institutions.
- Special Activity in High Endemic Distt.- 209 Districts had reported ANCDR (Annual New Case Detection Rate) more than 10 per lakh population. Special activity for early detection and complete treatment, Capacity building and extensive IEC, Adequate availability of MDT, Strengthening of distt. nucleus, Regular monitoring & supervision and review, Regular follow up for neuritis and reaction, Self care practices, Supply of MCR footwear in adequate quantity and Improvement in RCS performance through camp approach are planned in the above districts to reduce the disease burden.
- Supervision and Monitoring –Programme is being monitored at different level through analysis of monthly progress reports, through field visits by the supervisory officers and programme review meetings held at central, state and district level. For better epidemiological analysis of the disease situation, emphasis is given to assessment of New Case Detection and Treatment Completion Rate and proportion of grade II disability among new cases. Visit by Joint monitoring Teams with members from GOI, ILEP and WHO has been initiated from the year 2012-13 and to be continued annually.

Involvement of ASHA

A scheme to involve ASHAs was drawn up to bring out leprosy cases from their villages for diagnosis at PHC and follow up cases for treatment completion. To facilitate involvement, they are being paid an incentive as below:

- On confirmed diagnosis of case brought by them – Rs. 250/-
- On completion of full course of treatment of the case within specified time – Pauci bacillary (PB) leprosy case – Rs. 400/- and Multibacillary (MB) Leprosy case – Rs. 600/-. The scheme has been extended to involve any other person who brings in or reports a new case of leprosy.
- An early case before onset of any visible deformity – Rs 250
- A new case with visible deformity in hands, feet or eye – Rs 200

Role of community health worker

Community health worker play a vital role in leprosy treatment. They apply evidence-based nursing interventions for leprosy affected patients. They assist the leprosy patient from the first diagnosis to discharge follow up. They provide systemic care to patient and enable to develop a better interaction with the patient. They are counseling the patient to continue treatment and promote self-care between them. They provide knowledge about the sing symptoms of leprosy and reduce physical disabilities caused by leprosy. They encourage the patient's participation in the program, provide opportunities and stimulate the exchanges of experiences and discussion of the problems. After identifying problems, they aim to provide proper quality of care to client's real need. Timely diagnosis and proper treatment is the most effective way of preventing the disability.

Health care Interventions for Leprosy Patient

Leprosy is a chronic infectious disease caused by the acid fast bacillus *Mycobacterium laprae*. Some important health interventions for leprosy patient are pointed out in the below:

- Diagnose the impaired tissue integrity and monitor the characteristics of the lesion such as size, color, odor and drainage.
- Clean the wounds with saline or nontoxic substances as indicated.
- Apply sterile bandage to cover the wounds and maintain aseptic technique.
- Examine the wound damage daily during each dressing changes.
- Compare the changes of ulcer daily and record regularly.
- Routinely monitor temperature and color of skin.
- Encourage the affected people to maintain regular medical care with Multidrug therapy (MTD).
- Keep continue follow up the affected leprosy patient to identify relapse of leprosy disease.
- Monitor any signs of adverse effects regarding medications and take proper action.
- Protect hands and feet to avoid inadvertent injury and prevent chronic disability.
- Keep skin moist to prevent dryness and fissuring and avoid ulceration or infection of skin.
- Educate the patient to avoid plastic footwear or gloves which trap moisture and cause ulceration.
- Ensure adequate intake of fluid to maintain optimal skin hydration.
- Ensure proper rest and nutrition of the affected leprosy patient.

- Ensure proper treatment nursing of eye inflammation to preserve vision.
- Ensure moisture of nasal mucosa with 0.9% saline and essential fatty acids.
- Educate the patient and family member about the consequence of leprosy.
- Nurses should educate the leprosy patient about the signs and symptoms of relapse and disease exacerbation.
- Closely monitor the family and community people for development of leprosy signs and symptoms.
- Provide knowledge and increase awareness about advance sings of neuropathy.
- Nurses should educate the community people about signs and symptoms and mode of transmission of leprosy.
- Educate the patient and family members about importance of continuing treatment with Multidrug therapy (MDT) and evaluate the efficacy of Multidrug therapy (MDT).
- Identify patients who are not collecting drug on time and identify the reasons and take effective actions.
- Nurses should arrange health campaigns for early detection of leprosy and start early treatment.
- Public awareness and education campaigns are necessary to eliminate social stigma and isolation associated with the disease.
- Increase awareness among family members and community people to reduce discrimination to leprosy patient.
- Provide information to community people that leprosy is an infectious disease but curable with treatment.
- Inform the community people that leprosy treatment is available and free of cost.
- Also informed the community people, treated persons are no longer infectious.
- Nurses can increase awareness among people by arranging quizzes, essay competitions with prizes, public talks, game, puppet shows, posters and leaflets, religious leaders, local public representative and the mass media.
- Give psychological support to leprosy patient that they can able to live a normal life after proper treatment.

Thanks