

CENTRAL LEPROSY TEACHING AND RESEARCH INSTITUTE,
CHENGALPATTU – 603 001

(MINISTRY OF HEALTH & FAMILY WELFARE, GOVT. OF INDIA)

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Annual Report -2009-2010

INTRODUCTION:

The Central Leprosy Teaching and Research Institute (CLT&RI), Chengalpattu was originally established in 1955 by the Government of India under a Governing Body by taking over Lady Wellington Leprosy Sanatorium established in 1924. Later, in 1974, Govt. of India had made CLT&RI as a subordinate office of Directorate General of Health Services, Ministry of Health & Family Welfare with an objective to provide diagnostic, treatment and referral services to leprosy patients, trained manpower development for leprosy, control / elimination besides, research on various aspects of leprosy and its control. It has separate wings of Epidemiology and Statistics, Clinical, Medicine, Microbiology and Bio-chemistry laboratories with Animal House facilities, Surgery and Physiotherapy. This institute caters to both indoor and outdoor patients. The hospital has bed capacity of 124 patients. This Institute is also recognized as one of the nodal centers by Central Bureau of Health Intelligence (CBHI), DGHS, and Govt. of India for conducting Health Statistics training course for Medical Officers.

OBJECTIVES:

1. To undertake research in basic problems relating to the occurrence and spread and complication of leprosy.
2. To train manpower necessary to implement NLEP
3. To provide specialized services for diagnosis of leprosy, reaction, relapse and Reconstructive of surgery
4. To monitor and evaluate National Leprosy Eradication Programme
5. To function as a pivotal center for promoting anti leprosy work in the country

CLINICAL DIVISION

Clinical Division comprises of five inpatients wards and OPD, Nursing Section, Sanitary Section and Central Kitchen. Total sanctioned bed strength of the Clinical Division is 124. This has been divided into five wards, namely Investigation ward, surgical ward, Main hospital, Sick room and Women hospital. The Investigation ward has 24 beds and it is mainly used for expertised management of lepra-reactions, investigation for relapses/drug resistance and for other general medical conditions, acute or chronic nature.

Patient care facilities provided in the Clinical Division are:-

- Out patient care – General/MDT services
- In-patient treatment – General/MDT services
- Expert management of reactions, relapses/drug resistance etc.
- Teaching activities in leprosy.
- Research studies in clinical leprosy.
- Collaborative research projects with other divisions.

Inpatients services

Total patients treated	=	683
Total Discharges	=	606
Patients remain at the end of the year	=	89

Out patients

Total patients treated	=	14000
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SURGICAL DIVISION

The Surgical Division comprises the Surgical Unit, Physiotherapy Section, Artificial Limbs and Footwear Section, X-ray Section and Micro-cellular Rubber Sheets manufacturing Unit.

Attached to the Surgical Unit is a well-equipped Operation Theatre. There is a male surgical ward comprising 24 beds, where male patients undergoing elective surgical procedures like tendon transfers are admitted. Female patients undergoing elective surgical procedures and those with ulcers are admitted to the Women Hospital where 12 of the 18 beds are allotted to the Surgical Unit. Besides the above male patients with ulcers are admitted to Main Hospital comprising 25 beds and Sick Room comprising 27 beds. Investigation Ward comprising 24 beds is also used for admitting surgical patients with neuritis and for elective surgical procedures. The functions of the Surgical Division can be grouped as shown viz.:

- I) Patient care activities.
- II) Teaching and Training Programs.
- III) Research.

Patient Care Activities:

The Surgical Division provides both Out-Patients and In-Patients services for leprosy patients who come from different parts of the country, besides surrounding regions. Treatment in the areas of deformities and deformity prone conditions are extended. Both surgical and non-surgical methods are applied for treating patients so that permanent disabilities and handicaps are prevented.

Reconstructive Surgery:

Major	=	18
Minor	=	30

Physiotherapy Section:

The Physiotherapy Section has continued to play an active and very important role in providing Physiotherapy services to both Out-Patients and In-Patients. Besides patient care activities, the staffs of this section have also been involved in the various research projects conducted by the Surgical Division by way of evaluation of deformities, assessment of motor and sensory status and functional assessments. The

staff of the section are also involved in the various teaching and training programs conducted by the institute particularly so for the nine months Leprosy Physiotherapy Technicians Course. The staff of Physiotherapy Section is also actively involved in counselling of patients by imparting health education in the care of insensitive hands and feet, an important and decisive factor in the prevention of deformities and disabilities in patients.

Radiography Section:

The X-ray Unit attached to the Surgical Section caters to the needs of all clinical units in the institute. A SIEMEN'S 500 m.A. X-ray machine with micro-processor controls, which can be used besides taking routine X-rays for tomography work is functioning, in addition there is also a Portable X-ray Plant (Siemen's 30 m.A).

Micro-Cellular Rubber Mill:

The Micro-Cellular Rubber Mill is a small production unit manufacturing micro-cellular rubber sheets of the quantity needed for use in the manufacturing of footwear for leprosy patients.

MCR Sheet Production	=	1140
MCR Footwear Produced	=	1040

DIVISION OF LABORATORIES

Laboratory division is basically involved in the investigations of cases from out and inpatient departments of CLTRI for leprosy related and other routine investigations and also involved in the basic and applied research activities in leprosy. This division has sections like Microbiology, Mycobacteriology, Serology, and Clinical pathology, Skin Smear, Histopathology, Molecular-biology Haematology Biochemistry, Immunology and Animal House.

The Lab. Division is well equipped. Facilities for different kinds of microscopic studies like Light, Dark-field, Phase contrast, Fluorescent microscopies are available.

Facilities for different immunological studies involving immuno-flourescence tests, different types of electrophoresis, etc. are available. Sophisticated instruments like HPLC, Atomic absorption Unit, Ultra centrifuge, Phast gel system etc. are available. Facilities for isolation, characterization and drug sensitivity tests for cultivable Mycobacteria also exist.

The Molecular Biology section of the Division has been upgraded with the basic facilities for the isolation of DNA, PCR amplification and Gel documentation. These facilities are being utilized for various institutional projects and also in the collaborative and Post Graduate Course projects.

A separate Animal House with different animal colonies with provisions for animal experimental investigations including Mouse Foot Pad inoculation for the viability and drug susceptibility tests for M.leprae is also available.

Laboratory Division is also involved in teaching activities. One year Medical Laboratory Technician training course and short-term orientation training course in skin smear technique are offered. In addition to that, the teaching / training in laboratory aspects of leprosy are conducted for Medical Officers, Non Medical Supervisors, District Leprosy Officers, CRRRI trainees, etc. The various Lab Investigations done by Laboratory division for this year as follows:

Clinical pathology & Skin Smear	= 1000
Hematology & Serology	= 3300
Microbiology	= 400
Histopathology & Molecular Biology	= 5
Bio Chemistry	= 2430

SCIENTIFIC PRESENTATION MADE IN THE CONFERENCES DURING THE YEAR 2009-2010

- 1. “Detection of Plasmid mediated AmpC beta lactamase Genes in E.Coli using Multiplex PCR”** in the Indian Association of Medical Microbiologists Conference-2009 held at Mysore from 3rd to 8th November 2009 by **Shri.K. Arunagiri, Technical Assistant.**
- 2. “Molecular detection of Mutation in folp1 rpoB and gyrA genes of M.leprae by PCR Direct sequencing- A rapid tool for screening drug resistance”** in the the Indian

Association of Medical Microbiologists Conference-2009 held at Mysore from 3rd to 8th November 2009 by **Dr.B. Sekar, Joint Director (Microbiology)**

3. **Dr.B. Sekar, Joint Director (Microbiology)** delivered Guest lecture on “Drug resistance and Molecular techniques in leprosy” in the Indian Association of Leprologists Conference-2009 held at Delhi on 2nd October 2009.

SCIENTIFIC PAPERS PUBLISHED DURING THE YEAR 2009-2010

1. “Low frequency of moaA3 gene among the clinical isolates of Mycobacterium tuberculosis from Tamil Nadu and Pondicherry-South eastern Coastal states of India”
Dr.B. Sekar, K. Arunagiri, N. Selvakumar, K. S. Preethi, K. Menaka
BMC Infectious Diseases (2009) 9:114
2. Bacteriology of Leprosy - a Chapter in Text book of Leprosy by **Dr.B. Sekar, Joint Director (Microbiology)** published by the Indian Association of Leprologists

ON-GOING RESEARCH PROJECT DURING THE YEAR 2009-2010

1. Standardization of RT PCR for the amplification of 18kD M.leprae from paraffin embedding samples.
- 2.

DIVISION OF EPIDEMIOLOGY AND STATISTICS

Monitoring and Evaluation Section:

Monitoring and Evaluation section was established in the year 1986. This unit is having qualified statistical and IT manpower to analyse and computerize any study / activity. This unit is involved in the following activities.

1. Entering data, statistical analysis and preparation of reports of research projects.
2. Imparting Training for Medical Officers, Non-Medical Supervisors and House Surgeons.
3. Providing technical assistance to other divisions including administration for computerization and database maintenance.
4. Maintaining and updating Salary, Inventory of Stores Management etc.

Training Section

This section maintains trainee's hostel, scientist hostel and teaching tools for conducting various training programmes. There are 24 rooms in trainee's hostel and 16rooms in scientist hostel. This section co-ordinate with various Divisions / faculty for keeping the training schedules. All applications for training are screened and selection intimated by this section.

Training:

The institute is actively involved in the training of Laboratory Technician (one year course), Physiotherapy Technician (9 months course), District Medical Officer (5-days), Reconstructive surgery (one month), Medical Officer (5-days), Non-Medical Supervisor (2 months), Health Statistics (3 days) and CRRRI (5-days). In addition to this special one day training for various medical and non-medical personnel are also conducted at CLTRI.

All four Divisions, Clinical, Surgical, Epidemiology & Statistics & Laboratories are actively taking part in the various teaching and training programmes conducted by the Institute. The details of the programmes are as follows:-

S.No	Category of service	Number of participants attended the training
1	Non Medical Health Supervisor's training course	= 114
2	Laboratory Technician training course	= 7
3	Physiotherapy Technician training course	= 4
4	PG Medical Students from CMC & CRRRI	= 55

Staff strength:

The Institute has 252 sanctioned posts and 181 are in position viz

Group	Sanctioned Strength	In Position	Vacant
'A'	29	8	21
'B'	24	17	7
'C'	118	86	32
'D'	81	70	11
Total	252	181	71

Budget:

Category	Budget Estimate (2009-10)
Non-Plan	55000Thousands
Plan	10000 Thousands