Working towards a leprosy free world
Providing Comprehensive Care

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Leprosy

Traditionally Leprosy Is Considered
• Highly Infectious
• Incurable
• Deforming & Disabling

For Centuries Leprosy Has Posed Three Kinds Of Problems
• Medical
• Public Health
• Human & Social
Deformities

- When NCLCA was established at India, New detection of nearly 400,000 cases per year and disability rate of 7% in 1989.
- Disability care at field level was almost non-existent.
- Disabilities are the major cause of social stigma in leprosy.

Objectives

- To improve access to MDT treatment to help National Leprosy Eradication Program.
- To provide disability prevention and medical rehabilitation (DPMR) services including reconstructive surgery and care to facilitate their physical rehabilitation and eliminate stigma.
- To provide economic rehabilitation with income generation aids for enhancing self-esteem and social reintegration.
- To continue training, service and research in simple techniques of disability prevention, correction and care.
**NCLCA - Approach**

- To provide direct care from its centers
- To collaborate with the government to train health care staff in DPMR services
- To strengthen NGOs with scientific support
- To promote integration for leprosy and non-leprosy disabled without discrimination

**MDT is the first step in comprehensive care**

1989 – NCLCA Improved access to MDT
1993 - Pioneered the BCP project at Goa

Disabilities in new cases decreased with MDT

Novartis has pledged to donate MDT throughout the world beginning 2000 to 2010 and now till eradication
Comprehensive care services for disabled

- Health education
- Physiotherapy
- Prefabricated Splints
- Modulan Grip-Aids
- Foot-drop Splint
- Self-care Kit
- MCR Footwear
- Reconstructive Surgery
- Economic Rehabilitation

Pioneered for the field based disability care and rehabilitation program by the NCLCA

Health Education

- Designed by CLCP, this poster and its messages have been translated in Gujarati, Marathi, Konkani, Tamil, Sinhala, Burmese

- It is widely used in different formats like posters, leaflets, harmonium cards etc.

There is no substitute to health education for prevention of secondary deformities
Physiotherapy

- One exercise for each deformity works the best at home
- Group therapy at regular interval is the most effective method for teaching

Simple exercises taught to patient prevents complications or worsening of disability

Prefababricated Standardized Splints

- Splints are made from commonly available materials like Rexine, PVC tubes, Velcro, Rivets, Woolen felt and Rubber bands
- CLCP pioneered the field area delivery of prefabricated splints at patients home

Splints help exercises to strengthen weak muscles, stretch out skin or joint contractures and keep hands and feet mobile
Examples – Adductor Band

Adductor Band Splint is used for early abduction deformity and post operatively to prevent splaying of fingers; it may be used independently or in conjunction with steroid or surgery as an adjuvant.

Examples – Finger loop splint

Finger Loop Splint
Supports Weak Muscles
And Prevents Secondary Deformities

15% get complete correction
60% improve function
Examples – Dynamic Gutter

About 6000 patients have benefited through splints

Dynamic Gutter Splint has elasticity to stretch out Skin Contracture And Improve Range Of Movements In Stiff A Joint

Dr. Atul Shah received ALIMCO Award for designing splints

Foot Drop Splint

Foot drop splint given to the patients having foot drop of less than six months helps to get recovery particularly with treatment and steroid therapy.

The real advantage to patients is the immediate correction of gait. Patients come limping and go back walking normally after wearing the foot drop splint.
Positive spillover: Splints

- Acceptance of splints as modality to be delivered by the health care staff of the government and NGO’s at the door step of the patient
- Many organizations have established their own splint workshop
- Patients are not identified as leprosy as these splints are common to other nerve injuries

**Modulan® Grip-Aids**

Developed specially for care of disabled persons with advanced hand deformities in leprosy and other orthopedically handicapped persons by Novartis

**NCLCA pioneered its integration in field based disability care and rehabilitation services at community level**
Grip-Aids on occupational tools

Handicap

- A radio mechanic gets repeated burns due to slipping of hands on the hot metal part of soldering iron.

Solution

- The application of Modulan on the wooden handle of the soldering iron prevented burns

Grip-Aids

Grip-aids help to grasp tools of Activity of Daily Living and Occupation to increase efficiency of working
Modulan Grip-Aids help a burn victim and an amputee to overcome their handicap

Nearly 700 patients out of 1000 found it very useful

Positive spillover: Grip-Aids

- Adoption by other organizations, working with highly advanced deformity cases in the colonies for example, Hope Foundation and SLRTC Karigiri

- **Drawback of Modulan**: Time consuming, not manufactured in India and cannot be supplied in large quantities due to short shelf life.

- Dr Brahmchari used locally available material “M-Seal” for rural area use in absence of Modulan

New “Instant Grip-Aid” is standardized, pre-fabricated, light weight and easy to apply
## New ‘Grip-Aid Kit’ by NCLCA

The Grip Aid kit contains:
- Velcro-rubber grip-aid
- Spoon
- Glass with handle
- Comb
- Tooth brush

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## Instant Grip-aid an example

- Instant grip-aid has been found extremely useful for patients in leprosy colonies
Empowerment by Self Care Kit

- Patients want to care for their limbs but do not have adequate knowledge & materials for care.

- Majority of patients cannot afford repeated visits to doctor or even avail free dressing facilities for fear of losing daily wages

This innovative technique is also useful for ulcers due to other diseases like diabetes and neuropathy

Empowerment Camps

Thousands of patients have been empowered to look after themselves at home with the help of self-care kits in Gujarat, Maharashtra and Sri Lanka
Examples of benefits - self-care kit

Healed in 4 months at home

Examples of benefits - self-care kit

Ulcers 5 to 15 years duration healing in 4 months
Positive spillover: Self-care Kit

- Presented at WHO Conference and various national and international conferences
- Accepted as an important modality by various organizations and replicated with different materials
- Accepted in principle by the Government of India

Empowerment of disabled in “self-care” has been established by NCLCA as an effective modality for DPMR programs

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MCR Footwear

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<th>Female Designs</th>
<th>Male Designs</th>
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NCLCA provides and advocates different designs of MCR footwear to avoid stigma and to prevent injuries and ulcers in anesthetic feet
Reconstructive surgery is a part of package for comprehensive care of disabled. It helps to improve function and social acceptance.

Reconstructive Surgery - Achievements

- At Surat, NCLCA team has operated on more than 700 patients. At Gujarat, NCLCA team has participated in mega-camps where more than 5000 patients have been operated. The Gujarat Model was praised by the President of India.

- At Maharashtra, by Camp & Workshop Approach nearly 400 patients have been supported with RCS.

- At Goa, following technology transfer camp and 45 operations, medical college is regularly performing RCS.

- At Sri Lanka, orthopedic and general surgeons have been trained during 104 surgeries and leprosy patients are operated in the integrated setup.

NCLCA also supports care of non-leprosy disabled patients from all over India at J J Hospital, Mumbai as integrated services.
Economic Rehabilitation - Examples

- Tools for carpentry, masonry, cycle repairs, barber-kit and sewing machine are some low cost articles given as income generation aids.

Benefits of Economic Rehabilitation

- Boosts the morale of the person
- Prevents them from resorting to begging
- Gives a sense of social obligation
- Social integration made possible
### Summary: Disability care rendered

Nearly 18,000 patients have received services.

- **6000 hand deformity cases provided splints**  
  - 60% reported improvement
- **700 foot drop splints given**  
  - 80% could walk normally, 20% cured
- **5000 patients received MCR footwear**  
  - 60% replaced for 2 years, rest by NLEP
- **1000 patients received ‘Self Care Kit’ for ulcers**  
  - 40% healed, 85 improved
- **960 patients received economic rehabilitation articles**  
  - 70% had increased income in 285 cases studied

### Strengthening Holistic NGO – Mother Teresa’s Missionaries of Charity

- **MDT Blister Calendar Packs for 2500 patients**
- **Splints for 300 patients**
- **Modulan Grip-aid 200 patients**
- **Ulcer care kit**
- **Reconstructive Surgery - 9 demonstrations, surgeons trained**
- **Training of 40 technicians in disability care**
Blessings from Mother Teresa

NCLCA’s Impact – DPMR Services

- NCLCA has pioneered the disability prevention, correction, care and rehabilitation services with scientific research and innovative solutions
  - Adopted by government & others
- NCLCA has helped to eliminate leprosy along with integrated disability care services
  - Gujarat Model mentioned by the President of India, of which NCLCA was a major partner
- NCLCA has made a significant qualitative difference to the lives of thousands of patients
  - Examples demonstrate the capabilities

NCLCA has risen to the needs of the community, improved the social acceptance of patients and helped decrease the social stigma.
Thank you