

## SUPPORTIVE SERVICES



*Hospital Kitchen : Food for one and all.*



*Farm : Growing in plenty in order to live happily.*



*Animal Husbandry : Animals are friends in need.*



*Carpentry : Say it in Wood.*



*Forestry : A Green World of Hope*

## LEPROSY HOMES



*Cured Leprosy Patients, destitute and aged,  
are the VIPs at Nirmala, cared for in 4 Homes.*



*"Your visit gives us joy," Vinod  
and Madhusudan leaping for joy.*

## MEMORABLE EVENTS



*A State Conference of Voluntary Organisations in Leprosy. Shri Mahavir Das, Director in Chief, Health Services, Bihar speaks. Bhram Dev Singh Sharma, Editor Awaz, is the Chief Guest - 1986*

*Shri O. P. Lala is the Chief Guest at the Nirmala Girls Hostel Sports Meet - 1986. He visits the Hospital and the Leprosy Home in 1993, along with Shri Vyasji, D.C. and Shri M. P. Das, SDO, Dhanbad*



*An OPD Block is inaugurated - 1990. Shri I. B. Pandey, Director ( Personnel ) is the Chief Guest.*



*Shri Jaganath Pahadia, Governor of Bihar, inaugurate the Silver Jubilee of DSWC; Mr Poesmann, Treasurer, GLRA, is the Chief Guest, Shri P. R. Sinha, CMD, BCCL is the Guest of Honour - 1989*





## NIRMALA GIRLS' HOSTEL



*Assembly : We remember you,  
O' Lord and all our benefactors at daybreak*



*Knowledge is Power  
Classroom*

### **Vocational Training :**



*a) Tailoring  
Training in the skills for life.*



*b) Batik  
Supple Fingers at work*



*Nirmala Girls bag the Rolling Shield in a Tableau Competition on Communal Harmony, held on Republic Day – 1993.*

*The Rt. Rev. Dr. J. R. Rodericks S. J., Bishop of Jamshedpur, Patron DSWC, blesses the 2 additional Leprosy Homes – 1991.*



*Inauguration and Blessing of the 3 Jubilee Memorials – 1993. Shri Vyasji, DC, Dhanbad, inaugurates, Shri P. A. Sangma, Hon'ble Minister of State for Labour is the Chief Guest, and Rt. Rev. Dr. J. R. Rodericks S. J. Bishop of Jamshedpur blesses them.*

*Training of Opinion –Moulders in Society, in order to change Leprosy work into General Health Work. A govt. nurse – Trainee receives the Certificate of merit from Shri R. K. Paul AGM (Mgt. Div.), Kalyan Bhavan, BCCL, Dhanbad – 1989*





*Mother – and – Child Health –Care of the villages surrounding the Hospital.*

*Bernd Franke S. J., Jesuit Provincial , Munchen, Germany, awards the certificate of merit to the PMWs. Fr. Joe Ubelmesser S. J. is the Guest of Honour – 1993.*



*6 Cycle – rickshaws for self-help, distributed by Shri P. A. Sangma, Hon'ble Minister for Labour, Govt. of India – 1993.*

*Shri M. C. Srivastava, DRM; Shri S. S. Khurana, ADRM, Shri Ajay Singh, Senior D.S.C., Shri Saxena, Principal, RPF Training School, visit Nirmala – Republic Day, 1994.*







*Mrs. Pandey, Secretary, E.Rly. Women's Organisation distributes the Cycle-rickshaws - 1991.*



*Smt. Pramila Seth, President, ERWO is the Chief Guest, Fr. Gunther Kerkmann, Rector, Staff and students, Rokko High School, Kobe, Japan, were the guests of honour at Nirmala Girls Sports - 1993.*



*Shri Anil Sharma, Commandant, RPF, is the Chief Guest on Republic Day - 1993.*



*The Silver Jubilee Celebrations of Sr. Celene S S, held on Dec. 8, Nirmala Day. The main celebrant is Bishop Stephen Tiru of Dumka.*



*Visitors to Nirmala - Shri B. N. Bhagat, Dist. Coordinator UCO Bank, Dhanbad, Shri Brahmedeo Singh, Editor, Awaz, Shri U. D. Rawal, Editor, Janmat, Shri Satish Chandra, Senior Journalist and Socialist. Shri R. P. Verma, Prof. R.S. College, Govindpur, Shri Chandrakant Virji Sanghvi, Prominent Banker, Dhanbad, Shri Kamal Nayan Dudhani, Industrialist and Social Worker, Shri Ram Kumar Bhagat, Shri Bhulee, Dr. S. N. Choudhury, Prof. Manilal Gupta, and others on the occasion of the First Death Anniversary of Lt. Shantilata Bhagat, W/o Shri D. N. Bhagat. The inpatients and the VIPs were served a meal.*



*Shri Ashok Bhatnagar, DRM, E.Rly., Dhanbad,  
Chief Guest at Nirmala Girls' Sports - 1987.*

*Shri Ravindranath, ADRM, awarding prizes at  
the Nirmala Girls' Sports - 1991.*



*Shri Iraneus, Commandant, Bihar Military  
Police, at the Nirmala Girls' Sports - 1985.*

*Mrs Rajbala Verma, IAS, ADM, Dhanbad, is the  
Chief Guest at the Nirmals Girls' Sports - 1988.*





## HIGH-LIGHTING LIFE AT NIRMALA



*"All my Tomorrows depends on you"*



*"We are healed; our children are healthy" A cured, patient is now on the Staff.*



*"Good, hot food for us! We have a long way to go!"  
"The healthy daughters of patients are all set to enjoy a meal."*



*"Life is enjoyable for you and for me!" Healthy children of rehabilitated parents.*



*"I have been loved; and now I care for you," A senior Nirmala girl helps the little ones with their bath.*



*"Broken, but healed, I ever sing for joy." This is Madhee, one of our many VIPs*



*"We have overcome TODAY." Lively youngsters with Sr. Cecily, the Hostel Warden.*



*"You have touched me; I can continue to live," Rajani, a VIP for more than 15 years.*



*"I have a dream, a song to sing." Savitri Bawri, a promising daughter of a patient, having completed her plus Two, is now helping out at the girls' Hostel, Gomoh, Nirmala Mondal, also a daughter of a patient, is now in Class VII.*



*"We step forward to receive the Lord." First Holy Communion of Catholic Hostel Girls.*



*"Health is my birth-right",  
General Health Check-up of toddlers before the admission into the Hostels – January 7, 1994.*





*Water is life – Preserve it!*



*Graceful movements – we too can sing and dance!*



*Balance and Poise through sports.*



*We grow in confidence.*



*"Friday Shramdan" at Nirmala – all hands at work.*

## NIRMALA SAYS THANK YOU

G. L. R. A.



MR HERMANN KOBER  
Executive Director, GLRA



MR O. POESCHMANN Treasurer, GLRA with their  
Indian Officials T. Jayaraj Devadas and Mr S Panja

## FRIENDS OF LEPROSY VICTIMS - BALTIMORE



MR BILL O'HARA, MR TIM BRENNAN  
WITH FR. JOHN GUIDEA, S.J.



FR. JOE UBELMESSER &  
FR. FRANKIE, GERMANY



## SOS / PG, BELGIUM



MRS MARIA THYS  
with the Director

## C.A.L.L., FRANCE



FR. JOEL MASSIP  
Visits a ward with Stella & Veronica ( Fr.  
Bhat's Sisters)

## ASSOCIATION FRANCAISE NIRMALA



MR PASCAL KERCKHOBE

## ROKO HIGH SCHOOL, JAPAN



THE RECTOR, STAFF AND STUDENTS  
VISIT NIRMALA IN MARCH 1993

DSWC IS INTENSELY GRATEFUL FOR THE CONTINUED HELP AND SUPPORT, BOTH IN KIND AND CASH, PROVIDED BY THE BENEFACTORS MENTIONED ABOVE. ALSO INDIVIDUALS, SMALL FUNDING AGENCIES, SUCH AS THE HOLY CHILDHOOD ASSOCIATION OF GERMANY; AND TODAY, MANY OTHERS SUCH AS MRS. GERDA GEENS, BELGIUM; LEILA JANBEN, GERMANY



# **ADMINISTRATORS OF NIRMALA LEPROSY HOSPITAL**

**. . . They stood at the helm . . .**



1. Sr. Magdalene, SS  
July '67 to July '70



2. Sr. Josephine, SS  
July '70 to July '71



3. Sr. Susan, SS  
July '71 to Jan. '74



4. Sr. Aloysia, SS  
Feb '74 to July '75



5. Sr. Salome, SS  
Aug. '75 to July '81



6. Sr. Dorothy, SS  
Aug. '81 to June '82



7. Sr. Thomasia, SS  
July '82 to March '85



8. Sr. Jenny, SS  
April '85 to Feb. '91



9. Sr. Elsy, SS  
Mar. '91 to Mar. '93



10. Sr. Celine, SS  
May '92 to Apr. '94

## **PRESIDENTS : DSWC**

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1. Mr. A. P. Connolly	Nov. 1968-April 1970
2. Mr. T. Chittamber	Sept. 1970-Aug. 1971
3. Mr. B. M. Davar	Nov. 1971-Mar. 1973
4. Mr. K. P. Rathore	Mar. 1973-Dec. 1975
5. Mr. P. L. Robinson	Jan. 1976-April 1978
6. Dr. Asit. K. Chatterjee	May 1978-April 1981
7. Dr. P. K. Dutta	May 1981

## **DIRECTORS - DSWC**

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1. Fr. Michael Kavanagh, S. J.	1964 - 1970
2. Fr. L. J. Hunt, S. J.	1970 - 1983
3. Fr. Walter Kongari, S. J. (Acting)	1983 - 1984
4. Fr. J.C. Prabhu, S. J.	1984 - 1986
5. Fr. Vijay A. Bhat	1986



**DSWC GOVERNING BODY MEMBERS - 1994**

	NAME	OFFICE	OCCUPATION	ADDRESS
1.	Rt. Rev. J.R. Rodericks, S. J.	Patron	Bishop	Bishop of Jamshedpur P. O. Golumuri Jamshedpur-831 003
2.	Dr. P.K. Dutta	President	Doctor	Gandhi Road Dhanbad
3.	Mr. I. D. Trivedi	Vice-President	Manager (Personnel) TISCO	KF Flats, No. 62 BH Area, Kadma Jamshedpur
4.	Fr. Vijay A. Bhat	Secretary	Director	DSWC, P. B. No. 47 Dhanbad - 826001
5.	Sr. Maris Stella, A.C.	Treasurer	Principal	Carmel School Dhanbad
6.	Sr. Celine, SS	Member	Administrator	Nirmala Leprosy Hospital, G.T. Rd. Govindpur, Dhanbad.
7.	Dr. P. N. Gutgutia	Member	Surgeon	Patliputra Nursing Home, Joraphatak, Dhanbad
8.	Mr. Akala Balaswamy	Member	Chief General Manager	C.C.W.O., BCCL Dhanbad
9.	Mr. S. Bage	Member	Ex-Addl. Collector	Dhanbad

DSWC appreciates and gratefully acknowledges the devoted services of the Samaritan Sisters in Nirmala Leprosy Hospital, Hostel and Homes over the last 25 years and today.

- |     |                   |     |                  |
|-----|-------------------|-----|------------------|
| 1.  | Sr. Ann Magdaline | 26. | Sr. Apolonia     |
| 2.  | Sr. Josephine     | 27. | Sr. Ancy         |
| 3.  | Sr. Amal Jose     | 28. | Sr. Joan         |
| 4.  | Sr. Salome        | 29. | Sr. Rose         |
| 5.  | Sr. Dorothy       | 30. | Sr. Leena        |
| 6.  | Sr. Justina       | 31. | Sr. Susan        |
| 7.  | Sr. Baptista      | 32. | Sr. Leoni        |
| 8.  | Sr. Lucy          | 33. | Sr. Clementia    |
| 9.  | Sr. Patricia      | 34. | Sr. Divya        |
| 10. | Sr. Jenny         | 35. | Sr. Barbara      |
| 11. | Sr. Claudia       | 36. | Sr. Elsy         |
| 12. | Sr. Helen         | 37. | Sr. Assumpta     |
| 13. | Sr. Mary Jacob    | 38. | Sr. Aloysia      |
| 14. | Sr. Nirmala       | 39. | Sr. Jessy Thomas |
| 15. | Sr. Thomasia      | 40. | Sr. Marcella     |
| 16. | Sr. Mary Jose     | 41. | Sr. Litty John   |
| 17. | Sr. Martina       | 42. | Sr. Celine       |
| 18. | Sr. Latha Thomas  | 43. | Sr. Anita        |
| 19. | Sr. Agapita       | 44. | Sr. Andrea       |
| 20. | Sr. Lincy         | 45. | Sr. Agnes        |
| 21. | Sr. Doneta        | 46. | Sr. Cicily       |
| 22. | Sr. Merlin        | 47. | Sr. Jovita       |
| 23. | Sr. Pushpam       | 48. | Sr. Grace Mary   |
| 24. | Sr. Rani Thomas   | 49. | Sr. Ranita       |
| 25. | Sr. Liza          |     |                  |

### **THE HUMAN RESOURCES OF NIRMALA (AT THE CENTRAL OFFICE)**

1	Fr. Vijay A. Bhat	Director
2	Fr. Gyanprakash Topno	Deputy Director
3	Mr. Albinus Lakra	Director of Rehabilitation
4	Mr. Asim Chatterjee	Purchase & Maintenance Officer
5	Mr. David J. Brett	Asstt. to the Director (II)
6	Mrs. Angela Singh	Secretary
7	Mr. Sushanto Kr. Saha	Accountant cum Cashier
8	Mr. Mathias Kujur	Asstt. to Statistics
9	Mr. Baleshwar Prasad	Office Assistant
10	Mr. Koka Majhi	Purchase Assistant



### **THE HUMAN RESOURCES OF NIRMALA AT NIRMALA ITSELF**

1	Fr. Vijay A. Bhat	Director
2	Fr. Gyanprakash Topno	Deputy Director
3	Sr. Celine, SS	Administrator
4	Sr. Andrea, SS	Incharge, Pharmacy
5	Sr. Grace Mary, SS	Incharge, Wards
6	Sr. Agnes, SS	Incharge, Laboratory
7	Sr. Ranita, SS	Incharge, Physiotherapy
8	Sr. Jovita, SS	Incharge, Operations
9	Mrs. Kanika Sircar	Para-Medical Worker/Social Worker
10	Mr. Faruzuddin Ansari	Junior Lab. Technician
11	Miss Kalyani Raj	Pharmacy Assistant
12	Mr. Sanathan Gope	Smear Technician
13	Mr. Jagdish Sircar	Asstt. to Administrator



14	Mr. Ramnath Mondal	Accountant
15	Mr. Ashutosh Dey	Cashier
16	Mr. Sirajuddin Ansari	Driver
17	Mr. Jalil Ansari	Driver
18	Mr. Suchand Mahato	Driver
19	Mr. Baneswar Mahato	Driver
20	Mr. Purno Rajak	Driver
21	Mr. Ramesh Singh	Multi-Purpose Worker
22	Mr. John Rozario	Dresser
23	Mr. Srinath Mahato	Dresser
24	Mr. Deonis Murmu	Dresser
25	Mr. Biswanath Mahato	Dresser
26	Mr. Haradhan Francis Pandey	Jr. Records Clerk
27	Mr. Rampodo Baidyakar	Ward Asstt.
28	Mr. Manbhula Bauri	Ward Asstt.
29	Mr. Lodhai Majhi	Ward Asstt.
30	Mr. Joginder Yadav	Ward Asstt.
31	Mr. Madan Mahato	Ward Asstt.
32	Mr. Subodh Das	Ward Asstt.
33	Mr. Dinu Mahato	Ward Asstt.
34	Mr. Srishtidhar Mahato	Ward Asstt.
35	Mr. Sanathan Murmu	Ward Asstt.
36	Mrs. Rekha Singh	Ward Asstt.
37	Mrs. Sonamani Das	Ward Asstt.
38	Mrs. Lakhi Murmu	Ward Asstt.
39	Mrs. Purnima Mahato	Ward Asstt.
40	Miss Sandya Gope	Ward Asstt.
41	Mrs. Alpi Roy	Ward Asstt.
42	Mr. Poltu Mahato	Shoe maker
43	Mr. Michael Das	Shoe maker
44	Mr. Jurno Mahato	Shoe maker
45	Mr. Shyamlal Murmu	Carpenter
46	Mr. Lodhai Murmu	Carpenter
47	Mr. Kasinath Murmu	Multi-Purpose Worker
48	Mrs. Lonia Bage	Cook
49	Miss Rufina Dang	Cook
50	Mr. Ram Bahadur Thapa	Night Guard
51	Mr. Bijoy Chakraborty	Multi-purpose Worker
52	Mr. Bol Bahadur	Watchman

53	Mr. Dil Md. Ansari	Electrician
54	Mr. Binod Baski	H. E. Assistant & Electrician
55	Mr. Hussain Ansari	Generator Asstt.
56	Mr. Raju Singh	Maintenance Asstt.
57	Mr. Stanislaus Tirkey	Farm Incharge
58	Mr. Badal Bhui	Gardener

### **VOLUNTEERS**

1	Mr. John F. Shaw	For Secretarial Assistance
2	Mr. Oscar Aaron	Assistant to the Director(I)
3	Mr. K. C. Indwar	Health Education Officer & Statistics - Incharge

### **VOLUNTEERS (WELFARE)**

1	Mr. Joydeb Goswami	8	Mr. Birender Prasad
2	Mr. Bhibhuti Mahato	9	Mr. Amulya Mahato
3	Mr. Budheswar Panna	10	Miss Deepti Lawrenga
4	Miss Sheila Ketiar	11	Mrs. Bimala Ghosh
5	Mrs. Usha Singh	12	Miss Anna Marandi
6	Miss Anumpama	13	Mr. Shrawan Tirkey
7	Mr. Bholu Bauri	14	Miss Champa

### **MEDICAL OFFICERS AT THE SERVICE OF NIRMALA HOSPITAL**

#### **A RESIDENTIAL**

1. Dr. Himadri Shakher Nandy
2. Dr. Anuranjan Xess

#### **B. VISITING**

- 1 Dr. S. Mukherjee, Ophthalmologist
- 2 Dr. A. K. Mukherjee, General Physician & Leprosy
- 3 Dr. P. N. Gutgutia, Reconstructive Surgeon
- 4 Dr. S. K. Karan, General Surgeon
- 5 Dr. (Mrs.) Padmanabhan, General Physician
- 6 Dr. S. N. Jha, Child Specialist
- 7 Dr. R. S. Sinha, General Physician & Lecturer, PMW Training Centre
- 8 Mr. D. S. Ghatak, Asstt. to the Ophthalmologist

#### **C SPECIAL CONSULTANTS**

- 1 Dr. J. P. Mukherjee, ENT Specialist
- 2 Dr. (Mrs.) Asha Rai, Gynaecologist

DROPS ! RAIN DROPS ! DEW DROPS ! TEAR DROPS !  
DROPS OF BLOOD !

I believe for every drop of rain that falls  
A flower grows.....

The Lord says, "I send my dew over the earth so wide.  
It returns not to me, null, void, sterile.

Tear-stained faces, victims of Hansen's disease,  
Blood-stained rags bind ulcerated hands and knees.

Drops of blood staining the rigid, hard wood  
On Calvary's top, on that Friday called Good.

Son of the Father ! Lamb for sinners slain,  
Your Precious Blood ! Our ransom and our gain.

Martyr's blood is the seed of faith, they say,  
Damien shed his at Molokai far away.

Administration, Surgery, Medication, Dressing,  
Therapeutic training, skills for independent living.

Young and old come hither, moist - eyed and sore,  
They are welcomed, healed and strengthened to the core.

Little drops of water, little acts showing care  
Make bitter lives of suffering, possible to bear.

Kavanagh, Hunt, Kongari, Prabhu, Bhat, Sisters all  
I a humble helper; to you, Lord, I call.  
One drop of your Precious Blood, on me would fall  
Transform my work, my fatigue, my sweat, my All !

OSCAR AARON



## चिकित्सकों का कुष्ठ प्रशिक्षण कार्यक्रम गोविन्दपुर में

धनबाद, १३ जुलाई (का सं) १९९२  
डेमियन सोशल वेलफेयर सेंटर के निर्मला कुष्ठ अस्पताल गोविन्दपुर में धनबाद के सरकारी एवं निजी प्रतिष्ठानों के चिकित्सकों का कुष्ठ प्रशिक्षण कार्यक्रम कल में प्रारंभ हुआ। तीन दिवसीय इस प्रशिक्षण कार्यक्रम में टिस्को, हिन्दुस्तान जिंक, एम० ई० सी० एल, रेलवे आदि के चिकित्सकों ने भाग लिया।

इस अवसर पर जिला कुष्ठ निवारण पदाधिकारी डा० एच एस घुमन, डेमियन के डा० एच०एस० नंदी एवं डा०ए० खेस द्वारा इस कार्यक्रम में भाग लेने वाले चिकित्सकों को कुष्ठ रोग के विषय में विशेष प्रशिक्षण दिया जाएगा। इस रोग के निदान में की गयी नई तकनीक एवं अनुसंधान की जानकारी भी इस प्रशिक्षण कार्यक्रम के तहत दी जाएगी। डेमियन के निदेशक फादर विजय ए. भट्ट ने इस प्रशिक्षण के संबंध में बताया कि इस प्रशिक्षण का एकमात्र उद्देश्य चिकित्सकों को कुष्ठ की जानकारी देना है ताकि वे इस रोग से पीड़ित लोगों का उचित ढंग से उपचार कर सकें। उन्होंने बताया यदि इस रोग से संबंधित जानकारी समाज के सभी वर्गों को दी जाये तो वे प्रारंभिक दौर में ही इसका समाधान कर लेंगे।



## कुष्ठ अस्पताल के बाह्य रोगी विभाग का उद्घाटन

समाचार सेवा (१९९०)

धनबाद, ११ दिसम्बर गोविन्दपुर स्थित निर्मला कुष्ठ अस्पताल के नए बाह्य रोगी विभाग का भारत कोकिंग कोल क. के कार्मिक निदेशक इंद्र बहादुर पांडे ने शनिवार को विधिवत् उद्घाटन किया। इस अवसर पर श्री पांडे ने कंपनी की ओर से अस्पताल को २५ हजार रुपये अनुदान देने की घोषणा की।

श्री पांडे ने उद्घाटन समारोह में बोलते हुए अस्पताल की संचालक संस्था 'डेमियन सोशल वेलफेयर' के सेवा कार्यों की मुक्त कंठ से प्रशंसा की।

संस्था के निदेशक फादर विजय ए. भट्ट ने इस मौके पर बताया कि अब तक संस्था द्वारा २० हजार कुष्ठ रोगियों का इलाज किया जा चुका है। वर्तमान में संस्था के द्वारा चलाए जा रहे विभिन्न अस्पतालों एवं डिस्पेंसरियों में नौ हजार कुष्ठ रोगियों की चिकित्सा हो रही है, जिनमें चार हजार भारत कोकिंग कोल के कर्मचारी हैं। उन्होंने अनुदान के लिए कोकिंग कोल के प्रति आभार व्यक्त किया।



## निर्मला कुष्ठ अस्पताल के ओ.पी.डी. ब्लाक का उद्घाटन

(कार्पोलय संवाददाता)(१९९०)

धनबाद, ८ दिसम्बर। गोविन्दपुर में डेमियन सोशल वेलफेयर सेंटर द्वारा संचालित निर्मला कुष्ठ अस्पताल में नये ओ. पी. डी ब्लाक का उद्घाटन आज भा कोकिंग के निदेशक (कार्मिक) आई वी पांडेय ने किया।

श्री पांडेय ने कुष्ठ रोगियों की सेवा सुश्रुता के कार्यों की प्रशंसा की और कहा कि यह अतुलनीय काम है उन्होंने इस बात पर प्रसन्नता व्यक्त की कि भ को को लि के काफी संख्या में कर्मचारी उक्त संस्थान से लाभ उठाते हैं। उन्होंने कहा कि तमाम मानव समुदाय को सुख - शान्ति से रहने का अधिकार है और उन्हें ऐसे पीड़ितों की सेवा करने के लिए और मुख्य धारा में शामिल करने के लिए डेमियन सोशल वेलफेयर सेंटर की सराहना की।

इस अवसर पर इस ब्लाक के निर्माण में सहायता देने वालों को केन्द्र के निदेशक फादर विजय ए. भट्ट ने धन्यवाद का पात्र बताया। उन्होंने जानकारी दी कि पिछले २५ वर्षों में केन्द्र २० हजार से ज्यादा कुष्ठ पीड़ितों के रोग दूर कर चुका है। उन्होंने कहा कि निर्मला कुष्ठ अस्पताल में तमाम आवश्यक सुविधाएँ उपलब्ध हैं। इस अस्पताल में पुनर्संरचनात्मक आपरेशन की व्यवस्था भी है।



## कुष्ठ अस्पताल के रोगियों एवं निर्मला

बहाना तो था गोविन्दपुर के डी एन भगत की धर्मपत्नी शांतिलता भगत की प्रथम पुण्य तिथि के अवसर पर रजत जयंती वर्ष पार कर गये निर्मला प्रशिक्षण केन्द्र की आवासीय छात्राओं को दोपहर का भोजन वितरित करने का लेकिन इस माध्यम से हमलोगों को एक ऐसे तीर्थ के दर्शन उपलब्ध हुए जहां सेव्य-सेवक, रोगी निवारक एवं शिक्षक-शिक्षार्थी में कोई अंतर नहीं था। सेवा साधना और समर्पण की अटूट भावना सबको एक तार में बांधे हुए थी। कोयलांचल के विभिन्न प्रकार के प्रदूषणों और पर्यावरण आघातों से बचने के लिए निर्मला कुष्ठ निवारण केन्द्र के चारों तरफ वृक्ष और पौधों की हरी-भरी पंक्तियां जो ढाल बनकर खड़ी थीं और केन्द्र में प्रवेश करते हर आगन्तुक का झुक कर स्वागत करती जा रही थीं।

आयाज के सम्पादक ब्रह्मदेवसिंह शर्मा के नेतृत्व में अस्पताल परिसर में पधारे अतिथियों के दल में जनमत के संपादक यू डी राजल, वरिष्ठ पत्रकार एवं समाजवादी विचारक सतीश चन्द्र, आर एस मोर कालेज के प्रोफेसर आर पी वर्मा ललित, प्रमुख बैंकर चन्द्रकांत वीर जी संधवी, उद्योगपति एवं समाजसेवी कमल नयन दुदानी रामकुमार भगत, श्री भूलू, डा० एस एन चौधरी, प्रो० गणिलाल गुप्ता आदि शामिल थे। छायाकार श्रीकांत प्रत्येक क्षण को अपने कैमरे में कैद करने में प्रयासरत थे। डा० मानस कुमार साहा परिसर में पहुंचे तो सही पर हम डाल-डाल तुम पात-पात के खेल खेलते हुए।

अस्पताल के प्रबंधक फादर विजय भट्ट यद्यपि काम में कहीं अन्यत्र गये हुए थे तथापि परिसर में प्रवेश करते ही, वृक्षों की सघन छाया तले अस्पताल की प्रशासिका सिस्टर रॉलिन एवं बेल्जियम से पधारी समाज सेविका श्रीमती गैरदा के साथ श्री सरकार ने जिस आत्मीयता और सहृदयता से अतिथि दल का स्वागत किया उससे फादर भट्ट की कमी का अहसास नहीं हुआ। जैसे फादर भट्ट अनुपस्थित होकर भी परिसर की शालीनता स्वच्छत और तत्परता के उदाहरण के रूप में हर जगह मौजूद थे।

दोपहर रंग लाने लगी थी। भोजन का समय हो चला था। इसलिए सबसे पहले हमलोग कुष्ठ रोगियों के वार्ड में चल चले और श्री शर्मा ने प्रतीक्षारत कुष्ठ रोगियों को अपने हाथों से भोजन परोसने का अभियान शुरू कर दिया। रोगियों को सुस्वादु भोजन की सुगंधि

से भी अधिक प्रफुल्लता हमलोगों का आगमन प्रदान कर रही थी। वे रोगी नहीं

लग कर स्वस्थ जन लग रहे थे जैसे वे अस्पताल की व्यवस्था एवं व्यवहार से काफी संतुष्ट हो।

प्रधानखंता के रंजीत कुमार महतो, बनियाहीर के मो० सलीम, बालीबीघा गुरारु (गया) के मो० मोकीम, केन्दुआडीह के अमित कुमार सिंह जैसे अनेक स्वास्थ्य लाभ कर रहे रोगियों से पूछताछ के दौरान यह आश्चर्यजनक जानकारी मिली कि वहां प्रतिदिन वैसा ही सुस्वादु भोजन उपलब्ध होता है तथा किसी भी प्रकार के रोगी से कोई भेद-भाव नहीं बरता जाता। हाँ पुरुष एवं महिला रोगियों के लिए अलग-अलग वार्ड अवश्य हैं।

तत्काल कुष्ठ वार्डों में १३० रोगी स्वास्थ्य लाभ कर रहे थे और स्वस्थ हो जाने के उपरांत वे अपने कार्यकलाप सामान्य लोगों की भांति सम्पन्न कर सकने में सक्षम हो सकते हैं। ऐसे भी व्यक्ति अस्पताल परिसर में मिले जो कुष्ठ रोगी के रूप में भर्ती हुए थे और स्वस्थ होकर वहां कर्मों के रूप में कार्यरत थे। टुण्डी का श्यामलाल बड़ई अब यहीं अपना काम सम्भाल रहा था। रोगियों के पुनर्वास पर भी अस्पताल में ध्यान रखा जाता है।

श्री ब्रह्मदेव सिंह शर्मा ने भोजन वितरण का जो श्रीगणेश किया तो प्रो० वर्मा, श्री दुदानी, श्री संधवी, श्री भूलू, रामकुमार जी, डा० चौधरी मुक्तहित से भोजन बांटने में लग गये। श्री डी एन भगत का तो वह अनुष्ठान ही था। ऐसा लग रहा था कि परम्परा से हटकर इस अद्भुत पुण्य तिथि अनुष्ठान से श्रीमती भगत की आत्मा तृप्त हो रही हो और श्री भगत इससे संतोष उपलब्ध कर रहे हों। श्री भगत यह परम्परा बनाए रखें तो शुभ कर होगा। हमलोगों की भावना से सिस्टर सेलिन काफी उत्साहित थी और उन्होंने चाहा कि बुद्धिजीवियों एवं पत्रकारों का यह दल उनकी उपलब्धियों एवं संभावनाओं का प्रत्यक्ष अवलोकन कर लें।

हमलोगों ने गोविन्दपुर के निकट ऐतिहासिक ग्रेण्ड ट्रंक राजमार्ग से सटे २८ एकड़ के विशाल क्षेत्र में फैले एवं १०० कर्मियों तथा दो स्याई चिकित्सकों वाले उत्तर भारत के एक श्रेष्ठ रेफरल एवं विशेषज्ञता संपन्न कुष्ठ अस्पताल के परिसर का परिभ्रमण प्रारंभ कर दिया। इस अस्पताल के भौरा और बरमसिया में उपकेन्द्र भी बनाए गये हैं।

हमलोगों ने अनाथ बच्चों का स्कूल देखा जहां अभी ग्रीष्मावकाश

था परन्तु यह पता चला कि यहां अनाथ छात्र-छात्राओं के साथ वैसी छात्र-छात्राएं भी लाई जाती हैं जिनके भरण-पोषण में उनके माता-पिता बिल्कुल असमर्थ होते हैं। यहां कभी किसी को प्रवेश नहीं करने दिया गया हो, ऐसा उदाहरण नहीं बताया गया। ऐसे छात्र-छात्राओं के पुनर्वास के प्रति भी अस्पताल में सचेष्टता दिखाई जाती है।

दल जिस दृश्य से काफी अभिभूत हुआ वह था विकलांग का बाई जिसमें दिन-दुनिया से अलग ६५ ऐसे रोगी थे जो एक प्रकार से अपाहिज बन गये थे लेकिन जिस भावना और तरीके से निर्मला अस्पताल के कर्मों उनकी सेवा सुश्रूसा करते हैं वह निस्संदेह सरकारी अस्पतालों के कर्मियों के लिए आंख खोलने वाला उदाहरण है। इनमें से अनेक रोगी अस्पताल के बाहर पुनर्वास नहीं पा सकते। उनका जीवन इसी अस्पताल की सीमा सीमित होकर रह गया है परन्तु उनके चेहरे का उल्लास और जीवन के प्रति आशावादिता देखते ही बनती थी। प्रीतीश दे ने, जिनके हाथ और आंख समाप्त हो चुके हैं

नृत्य और बाघ के साथ लोकगीत सुनाकर अतिथियों को स्तब्ध कर दिया। प्रीतीश दे का पुत्र प्रसन-जित कुमार दे डानबास्को में अवियंत्रण की शिक्षा प्राप्त कर रहा है। इन्हें अतिविशिष्ट रोगी माना जाता है।

दल ने वह सामुदायिक सभागार भी देखा जहां कुष्ठ रोगी एवं स्कूल के बच्चे-बच्चियां विभिन्न उत्सव भी मनाते हैं और स्वस्थ मनोरंजन भी करते हैं। यदा कदा जब कोई समारोह आयोजित होता है तो उनकी सत्परता और कार्य कुशलता देखते बनती है। इसी क्रम में गत वर्ष के दिसम्बर में फादर विजय भट्ट द्वारा अस्पताल परिसर में आयोजित बड़े दिन का स्वागत समारोह उल्लेखनीय है जिसमें धनबाद के गण्यमान्य लोग उपस्थित हुए थे।

यहां रोगियों के भोजन एवं उसकी पोष्टिकता पर विशेष ध्यान दिया जाता है।

उन्हें दूध, सब्जी, मांस-मछली उपलब्ध कराए जाते हैं और यह कोशिश भी रहती है कि अस्पताल के विस्तृत परिसर का उपयोग सब्जियों उगाने, मत्स्य पालन, जंगली सूअर रखने, पशुपालन के रूप में किया जाए।

इस क्रम में यह अवश्य उल्लेखनीय है कि साल के हजारों वृक्ष

वहां लगये गये हैं जो झुम-झुम कर यह उद्घोषित कर रहे थे कि कुछ ही वर्षों में ये लाखों की धन राशि अस्पताल को उपलब्ध करा देंगे। परिवेश को खुशगवार बनाने की जिम्मेदारी तो वे सम्भाल ही रहे थे।

निर्मला अस्पताल के प्रशासनिक व्यवस्था काफी चुस्त-दुरुस्त दिखी। उसका कारण यह बताया गया कि प्रत्येक विभाग का प्रबंध एक सिस्टर के हाथों में रहता है और भारतीय बहनें जहां कुशल गृह व्यवस्थापिकाएं स्वीकृत की जा चुकी हैं वहाँ उनकी सेवा और परिश्रम की प्रवृत्ति भी अनुकरणीय है।

संपूर्ण अस्पताल परिसर में सिर्फ एक भयंकर ब्रुटि नजर आई और वह यह कि इस महत्वपूर्ण अस्पताल के दो-दो फोन मृत पड़े थे और उनके जीवित होने की आशा त्याग कर सिस्टरों ने उन पर कफन डाल दिया था। निस्संदेह इसमें अस्पताल के प्रबंधन का कोई दोष नहीं था।

From the Newspaper

AWAZ dated  
9th June 1993



## निर्मला कुष्ठ आश्रम को दवाएं

प्रदत्त

(कार्यालय संवाददाता )

धनबाद, १४ अप्रैल (१९९३) बैंक आफ इंडिया के ग्रामीण प्रचार कार्यक्रम के तहत निर्मला कुष्ठ अस्पताल में गत दिनों एक समारोह आयोजित कर अस्पताल के निर्देशक फादर विजय भट्ट को तीन हजार रुपये मूल्य की दवाएं कुष्ठ रोगियों के चिकित्सार्थ प्रदान की गयी। समारोह का आयोजन कान्हा इंडस्ट्रीयल एरिया स्थित बैंक आफ इंडिया द्वारा किया गया था। सभा की अध्यक्षता क्षेत्रीय प्रबंधक नन्द पी माया ने की तथा अतिथियों का स्वागत प्रबंधक एस ए राव ने किया। सभा का संचालन जनसंपर्क अधिकारी देवराज सिंह ने किया।

अपने संबोधन में क्षेत्रीय प्रबंधक ने निर्मला कुष्ठ आश्रम की सेवाओं की प्रशंसा करते हुए इससे सीख लेने की अपील की।

इस अवसर पर छात्र छात्राओं को स्कूल बैग, पेन्सिल बाक्स आदि देकर उत्साहित किया गया। धन्यवाद ज्ञापन फादर विजय भट्ट ने की।



नर्सों को कुष्ठ उन्मूलन का प्रशिक्षण धनबाद, २१ जुलाई (१९९२) (का सं) डेमियन सोशल वेलफेयर सेन्टर के निर्मला कुष्ठ अस्पताल, गोविन्दपुर में कल बी सी सी एल के पारा मेडिकल कार्यकर्ता जिनमें अधिकांश कम्पाउन्डर और नर्स शामिल थी, इनके साथ ही साथ धनबाद जिला अवस्थित सदर अस्पताल के प्रशिक्षु नर्सों के लिए कुष्ठ उन्मूलन कार्य के बारे में एक दिवसीय प्रशिक्षण दिया गया। उक्त शिविर में कुल ३० प्रशिक्षार्थी थे। आरम्भ में केन्द्र के निर्देशक फादर विजय भट्ट ने उन्हें प्रशिक्षण के संबंध में बताया कि इस प्रशिक्षण का एकमात्र उद्देश्य लोगों के बीच कुष्ठ रोग की जानकारी देना केन्द्र का उद्देश्य है कि समाज के सभी वर्गों को इस रोग के बारे में जानकारी दी जाए, ताकि प्रारंभिक दौर में ही इसका उपचार हो सके। इस अवसर पर डेमियन के डाक्टर एच एस नन्दी, डा. ए खेस और स्वास्थ्य प्रशिक्षण पदाधिकारी श्री के सी इन्दवार ने भाग लिया। यह प्रशिक्षण बी सी सी एल के मानव संसाधन विभाग के सौजन्य से किया गया।

प्रशिक्षण के उपरान्त श्री आर के प्रसाद, सहायक महा प्रबंधक एवं श्री बी प्रसाद, प्रबंधक, एच आर डी द्वारा प्रमाण पत्र वितरित किये गये।

## महिला-गोष्ठी का आयोजन

धनबाद, १५ मार्च १९९३ (का सं)। गोविन्दपुर स्थित निर्मला कुष्ठ अस्पताल में अंतर्राष्ट्रीय महिला दिवस के अवसर किया गया। गोष्ठी में उपस्थित महिलाओं को स्वास्थ्य सम्बन्धी जानकारी दी गयी। गोष्ठी में डा० श्रीमती करण ने महिलाओं को उनके कर्तव्यों से अवगत कराया। डाक्टर ने कहा कि बच्चों को उचित समय पर चिकित्सा उपलब्ध कराना आवश्यक है। गोविन्दपुर शिक्षक प्रशिक्षण विद्यालय की श्रीमती अर्पणा ने महिलाओं के बीच साक्षरता के प्रसार पर बल दिया। प्रौढ़ शिक्षा और नारी शिक्षा पर जोर देते हुए उन्होंने महिलाओं को प्रगतिशील और सजग रहने का सुझाव दिया। अन्य वक्ताओं ने गोष्ठी को संबोधित करते हुए समाज के उत्थान में महिलाओं के योगदान की चर्चा की।

इसके पूर्व डेमियन सामाजिक कल्याण केन्द्र के निर्देशक फादर विजय भट्ट ने अंतर्राष्ट्रीय महिला दिवस के बारे में लोगों को जानकारी दी।

महिला गोष्ठी के अवसर पर आस-पास के ग्रामीण क्षेत्रों की सैकड़ों महिलाएं उपस्थित थीं।



## -----THEY SAY-----

I visited the place this morning. I am very much impressed to see the dedicated work by the executive, staff and others. I confess that I have seen the other side of society and life. I did see joy and happiness on the faces of elderly people, both male and female. I fail to understand as to where they would have gone, if this place had not been available. As such, it remains the duty of every able-bodied person to do something for this place. I also gave some suggestions for improving the financial condition of the institution, and I am requesting all, specially persons from CIL/BCCL to do something very specific for this place whenever they come. I pray that God bestows more happiness in this place as the need is here. I wish them all success in the future.

3/10/90

Paras Nath Rai,  
Ex.D (T), BCCL.



I visited the hospital today and found everything in order; and this has impressed me very much. May GOD bless the patients and the care-takers.

17/1/93

A.C. Mendiratta,  
CCWO Colony,

Saraidhella.

I visited the hospital. Actually it was not known to us that there was such a nice hospital to look after leprosy patients. We will distribute fruits to the patients on 24.1.93 at 9.30 a.m. on the occasion of 105th Birth Anniversary Celebrations of Dhiber.

17/1/93.

M. M. Konar,  
Research Officer, ISM,

Dhanbad.

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निर्मला अस्पताल का पुरा परिभ्रमण किया और सभी वार्डों एवं यहाँ के लोगों के द्वारा की गई सेवा का अवलोकन किया। निर्मला अस्पताल वस्तुतः सच्चे माने में मानव सेवा कर रहा है, जो अन्य अस्पताल एवं स्वयं सेवी संस्थाओं के लिये उदाहरण है।

प्रो. राजेश्वर शर्मा

२८/५/९३



दुसरी मर्तबा इस अस्पताल मे गया। इतनी बढ़िया सेवा और व्यवस्था देखकर मन बहुत ही प्रसन्न हुआ। भगवान संस्था को आगे बढ़ाने मे सबका पुरा सहयोग दिलाए।

कमल दुहानी।

□□□□□

*In my opinion, this is a philanthropic institution. Those who are serving here are actually serving God.*

28/5/93

**R.K. Bhagat,**  
Ex.Chief Welfare Inspector,  
Incharge, Railways.

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I had a desire to meet Rev. Fr. Vijay Bhat. Sorry to miss him today. It was pleasure to go round a very clean, green, calm and peaceful institution. The institution with its own farms, cattle, pumping station for water etc. is a self-sufficient institution. The wards are also neat and clean. I would like to take an opportunity to come to the institution. I shall like to have a garden like this in all my hospitals.

17th Jan.1994.

Chief Medical Officer,

**Dr. D. N. Upasani,**  
South Eastern Rly., Calcutta

★★★★★

किसी ने सच कहा है

माना कि सारा जहाँ गुलजार न कर सके-दीवार कम कर दिये गुजरी राह से।  
निर्मला अस्पताल की सेवा दलितों एवं उपेक्षितों के लिये संजीवनी के समान है।

देवेन्द्र नाथ भगत

२८/८/९३

I am not only very pleased to have seen the services to mankind being done here but feel very grateful to the hospital management for the very precious services being rendered. I wish them as also the patients, a nice time and a healthy life.

May God help all here.

5/2/94

**D. N. Agarwal**  
Ex.Chief General Manager (Fin)  
Eastern Coalfields, Shantidhan, New Colony,  
Jagjiwannagar, Dhanbad



# **NOT BY CHEMOTHERAPY ALONE**

H. SRINIVASAN

The problem of leprosy is not new. A Tamil poet of the classical Sangam age who lived in South India about eighteen hundred years ago describes a scene in which a young woman complains to her girl friend thus, "As you had suggested I went last night to the mango grove outside our village to meet my beloved. And what a trouble I had there! I had to leave the place in a hurry without meeting him. You know why? I could not stand the impertinent advances of that wretched Brahmin, with limbs mutilated by leprosy, who was thrown out of the village. I had to flee from him". This deformity and ostracism has been the problem of leprosy over the centuries, and it remains so even today.

## **THREE - TIER MODEL**

The consequence and repercussions of leprosy are better appreciated if we apply the three-tier model "Impairment - Disability - Handicap" developed by rehabilitation scientists. Here, "Impairment" refers to the loss or abnormalities of the body parts or functions whereas "Disability" refers to the difficulty or inability to carry out certain acts, because of visible consequence of hidden impairments. "Handicap" refers to the disadvantages experienced by the affected persons in living in society because of which they are unable to play their roles and meet their normal social obligations.

Leprosy gives rise to many kinds of impairments, both primary impairments resulting from the disease, as well as secondary impairments which are the consequence of the primary impairments and not of the disease as such. The primary impairments of leprosy include involvement and damage to facial structures, involvement and damage to peripheral nerves, involvement and damage to ocular structures and psychological disturbances consequent to the diagnosis of leprosy.

Besides these primary impairments, the unprotected use of anaesthetic extremities and neglect of paralytic states give rise to secondary impairments like ulceration, contractures, shortening of digits, mutilation and skeletal disorganization. Secondary impairments, like corneal ulceration and secondary glaucoma, may occur in the eyes.

These impairments give rise to a variety of disabilities. But there have been a few studies to ascertain the disabilities experienced by persons with leprosy-related impairments at



home and at work. Since hands, feet and eyes are the organs affected we expect the resulting disabilities to involve manual dexterity, locomotion and vision.

The handicaps experienced by leprosy patients are many and varied and related to mobility, education, employment, behaviour, social integration, economic independence and physical independence, to mention a few. The severity of handicaps experienced by leprosy patients varies, depending on the level of prejudice against leprosy in the community as well as the availability and quality of medical and rehabilitative services.

"Handicap", needs to be expanded further into Handicap, Dehabilitation and Destitution, thus giving us 5- tier in all. "Dehabilitation" refers to the process of marginalization and devaluation of persistently handicapped persons and consequent loosening of social bonds that hold them and their families and the community together. It also refers to the end state of partial estrangement of affected persons when they opt out or get pushed out of their homes and community to submerge themselves in the anonymity of the urban crowd or live in a colony where they are among their equals, or, in so called "Rehabilitation homes" where they are segregated from the society. "Destitution" i.e., the state of total alienation from all society, is the final stage of this dismal story. The destitute is completely alone. The destitute lives and dies alone without anybody caring either way.

### **AIMS OF INTERVENTIONS**

Health care activities may be viewed as interventions with certain aims in the lives of persons. The five-tier model shows that we can make six types of interventions in leprosy, each with a specific aim. The aims of these interventions are; (i) to prevent primary impairments; (ii) to prevent secondary impairments; (iii) to prevent permanent disabilities because of primary and secondary impairments; (iv) to prevent handicaps and dehabilitation; (v) to prevent dehabilitation and destitution and (vi) to salvage the destitute.

The first aim of prevention of primary impairment is achieved by timely detection of the disease and effectively treating it with appropriate chemotherapy. The second aim of preventing secondary impairments is achieved by the affected persons taking proper care of their insensitive hands, feet and eyes which may also have muscle paralysis. The third aim of prevention of permanent disabilities is achieved by identifying the relevant impairments such as neuritis, ulcers and injuries at an early stage and treating them promptly. The fourth aim of preventing handicaps resulting from permanent disabilities is achieved by abolishing or improving the disability and making the patient able again.



The fifth aim of prevention of debilitation and destitution of affected persons is achieved by instituting measures to overcome their handicaps. The last aim of salvaging the destitutes is achieved by providing them with shelter and sustenance as well as restoring human dignity and fellowship to them.

From the wider view point provided by the 5-tier model, we see that tackling the "Leprosy problem", which means problems of the leprosy-affected persons, requires a series of interventions of which chemotherapy is the first and foremost. Leprosy programmes of the different countries are achieving the first aim of prevention of primary impairments by early case detection and effective treatment with MDT. But we must not forget that a substantial proportion of patients require the other interventions besides chemotherapy in order to tackle their "leprosy problem".

### **URGENT NEED FOR OTHER INTERVENTIONS**

In the present juncture it has become necessary and important to implement the other interventions on a priority basis. It is because, widespread, intensive implementation of the multidrug therapy (MDT) programme has introduced a new dimension and a new need for urgency in the hitherto placid and rather sluggish world of leprosy and leprosy control.

Leprosy is now, cured within 6 to 12 months in most cases, and within two to three years in the remaining cases. Once the treatment is completed, the affected persons' names are removed from the active register. They become the subjects for surveillance, i.e. to be seen once a year for two to five years. As a rule, the surveillance work is not done with the same enthusiasm and diligence.

This kind of benign neglect will not matter for those persons whose only problem was having the disease. But there is a sizeable minority, about 20%, who have already developed leprosy-related impairments and disabilities. Leprosy programme personnel, consider that by providing antileprosy chemotherapy they have done their job and any residual problem should be somebody else's responsibility. Other organizations catering to the needs of other handicapped and disabled are not technically or psychologically equipped to meet the needs of persons with leprosy-related impairments and disabilities. Those persons, with leprosy-related problems, but not needing chemotherapy, have nowhere to turn to for help and they are not equipped to cope with their problems on their own either. This is the back-ground in which we find that an increasing number of leprosy-affected persons are being discharged 'cured', because of efficient implemen-



tation of the MDT programme, and so an increasing number of persons with leprosy-related impairments and disabilities are being added to the general community, outside the sphere of operation of leprosy sector. This is the emerging problem following successful implementation of MDT on a large scale in India, which has the largest aggregate of leprosy-affected persons in the world.

## **NEEDS OF PERSONS WITH LEPROSY-RELATED PROBLEMS**

The leprosy-affected persons have four major needs : (i) To get their disease cured, (ii) To be made able and normal looking once again, (iii) To prevent worsening of new impairments, and (iv) To get their social status restored. These needs will be met by the following programmes, namely : (i) a " Chemotherapy programme" [providing the first level intervention ] to get the disease cured; (ii) a "Re-ablement programme" [ providing the fourth level of intervention] to make the affected persons able again; (iii) a "Disability prevention programme" [ providing the second and third level intervention ] to prevent the occurrence of new impairments and worsening of impairments already present; and (iv) a "Rehabilitation programme" [ providing the fifth and sixth level of intervention ] to rehabilitate the severely handicapped and debilitated as well as to salvage the destitute subjects.

## **RE-ABLEMENT**

The goal of "Re-ablement" is to abolish disabilities and deformities and make the affected persons able and normal-looking once again. This is possible through surgical and non-surgical means.

## **DISABILITY PREVENTION**

Prevention of worsening of existing impairments and disabilities as well as prevention of occurrence of new impairments and disabilities are the goals of the "Disability prevention" programme. Unlike 'Re-ablement' which is based on medical technology and services, disability prevention rests primarily on the efforts of affected persons themselves, for, it is only they who can protect their insensitive parts from injury, get any injury healed early, maintain their joints supple and be on the lookout for signs of onset or progress of nerve damage.

We must realize that 'Disability prevention' is the key activity without which neither Re-ablement nor Rehabilitation can be meaningfully carried out.

Disability prevention requires the affected persons to learn new habits of living and

working, and discarding many old habits that are harmful. Practising disability prevention is not easy, and it requires understanding, encouragement and support from the family and the neighbours. In order to ensure that, it is necessary to elicit their co-operation and active participation, by inducting them also in the process of technology transfer and getting them to commit themselves to support disability prevention.

## **REHABILITATION**

It is the persistently handicapped and the dehabilitated who will require rehabilitation. Among the dehabilitated, those who are still living with their families and communities, need special attention rather than those living in self-settled colonies where they have managed to 'rehabilitate' themselves in a manner of speaking.

We must realize (i) that Rehabilitation is not merely supply of certain goods and services, (ii) that Rehabilitation is the device to provide social security to the handicapped and marginalized segment of the society, particularly those with disabilities; and (iii) that just as dehabilitation is the process of breaking down of bonds that held affected persons and society together, Rehabilitation is the process of re-establishment of those bonds.

Thus Rehabilitation is a much wider concept and process in which the local community has a crucial role to play. It will not be far wrong to say that economic dependency of the affected individual makes rehabilitation more difficult and that economic prosperity and independence make rehabilitation easier.

By and large, Government and non-governmental organizations have three kinds of programmes : Development programmes to improve the economy of a region, Welfare programmes to help the marginalized and handicapped segments of the society and Rehabilitation programmes for different categories of disabled persons.

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Courtesy : KUSHT VINASHAK - Monthly Vo. 15 No. 12 - Dec. 1993.

State of Art Lecture delivered on 2nd Sept. 1993 at the XIV International Leprosy Congress held at Orlando, Florida, U.S.A.





## डेमियन सामाजिक कल्याण केन्द्र के कल्याण कार्य

कुष्ठ रोग चिकित्सा, विज्ञान तथा लोक स्वास्थ्य क्षेत्र के लिए एक गंभीर समस्या है। इस रोग से उत्पन्न सामाजिक समस्या उससे भी अधिक जटिल है। कई वर्षों के प्रयास से बावजूद अभी तक चिकित्सा विज्ञान बिना हिचक कह नहीं सकता कि उसने इस रोग पर पूर्णतः विजय प्राप्त कर लिया है। कई समाज की सेवी व्यक्ति, संस्थान तथा सरकारी संस्थाओं ने कुष्ठ रोगियों की सामाजिक समस्याओं को सुलझाने का प्रयास किया परन्तु अभी तक उनकी सामाजिक समस्याओं का पूर्ण रूप से हल नहीं निकल पाया है। बहुधा इस रोग से पीड़ित व्यक्ति समाज, परिवार तथा रोजगार एवं शिक्षा संस्थानों से बहिष्कृत कर दिये जाते हैं। ऐसे रोगियों को मानसिक, सामाजिक, आर्थिक, चिकित्सा, बेरोजगारी, भोजन, एवं गृह आदि समस्याओं का सामना करना पड़ता है। ऐसे रोगी सामाजिक अन्याय के शिकार बनते हैं। समाज एवं परिवार से बहिष्कृत रोगी जीविका का कोई साधन न पाने पर भिक्षावृत्ति या कोई अन्य अवैध धन्धे अपना लेते हैं, जिसकी आदत पड़ जाने पर उन कुकर्मों से उन्हें छुड़ाना असम्भव हो जाता है। भिक्षावृत्ति का पेशा अपनाने वाले रोगी पेड़ों की छाया, सड़कों, गलियों, रेलवे स्टेशनों या तीर्थ स्थलों में अपना दिन काटते हैं।

इन में से कई रोगी शहर की आवादी से दूर, एकांत जगहों में झोपड़ियाँ बनाकर स्थाई रूप से बस जाते हैं। धनबाद, झरिया, सिन्दरी कतरास आदि क्षेत्रों में इसी तरह से कुष्ठ रोगियों की कई बस्तियाँ बस गयी हैं। डेमियन सामाजिक कल्याण केन्द्र का प्रारम्भिक कार्य इन्हीं बस्तियों में रहने तथा सड़कों में भटकने वाले रोगियों के बीच राहत तथा कल्याण के काम करने तक ही सीमित था। इन रोगियों के निवास स्थानों का पता लगाया गया तथा उनकी चिकित्सा की व्यवस्था की जाने लगी। भटकने वाले रोगियों के लिए स्थाई निवास स्थान की व्यवस्था की गयी।

जैसे-जैसे समय बीतता गया यह महसूस किया गया कि राहत तथा कल्याण कार्य ही पर्याप्त नहीं है, क्योंकि इन कार्यों से रोगियों को कुछ हद तक राहत मिल तो जाती थी परन्तु समाज में रोग की रोक-थाम नहीं हो पाती थी। अतः संस्था द्वारा कुष्ठ निवारण तथा उन्मूलन के कार्य का कदम उठाया गया। साथ ही रोगियों के बीच राहत तथा कल्याण कार्य के लिए कल्याण विभाग की स्थापना की गयी। इस विभाग का मुख्य कार्य कुष्ठ बस्तियों के रोगियों के बीच कल्याण कार्य को जारी रखने तथा नियंत्रण क्षेत्र के जरूरत मंद रोगियों के लिए राहत तथा कल्याणकारी काम करना था।

कुष्ठ बस्तियों के सर्वेक्षण से पता चला कि इन बस्तियों में चिकित्सा, पेय-जल रहने के घर तथा बच्चों की शिक्षा की व्यवस्था तथा उनके बीच सामाजिक जीवन बहाल करने की विशेष आवश्यकता है। इन बस्तियों का संगठन किया गया, हर बस्ती में पंचायत की स्थापना की गयी। पंचायत की सहायता से बहुत सी सामुदायिक समस्याएँ हल कर ली जाने लगी। चिकित्सा से लिए हर बस्ती में महीने में एक या दो बार चिकित्सा दल पहुँचकर दवाई बाँटने लगा। कुष्ठ रोग की चिकित्सा से साथ-साथ अन्य रोगों की भी चिकित्सा की जाने लगी। हाल की जाँच से पता चला कि इन कुछ बस्तियों के अधिकतर निवासी रोग-मुक्त हो चुके हैं अतः इन बस्तियों में चिकित्सा दल को नियमित रूप से जाने की आवश्यकता नहीं रह गयी है। फिर भी हर बस्ती में एक ड्रेसर की व्यवस्था है जो जख्मों की मरहम पट्टी करता है और आवश्यकतानुसार सिर दर्द आदि की साधारण दवाएँ बाँटता है।

प्रारम्भ में कुछ बस्तियों की झोपड़ियों की स्थिति बहुत दयनीय थी। रोगी छोटी-छोटी झोपड़ियों में जीवन बिताते थे। झोपड़ियाँ अस्वास्थ्यकर होती थी। छतें बिचाली की होती थी जिन्हें प्रतिवर्ष बदलना पड़ता था। अतः इन झोपड़ियों को सुधारने का कदम उठाया गया। भौरा में रोगियों के लिए पक्के घरों का निर्माण किया गया। साथ ही इस बस्ती के साथ जुड़े डिगवाडीह क्षेत्र के रोगियों के लिए एक छोटे अस्पताल का निर्माण किया गया।



करकेन्द, पलाटाड, डिगवाडीह, जामाडोवा, डोमगड, झरिया आदि बस्तियों में हल्के (कागजी) छतों की व्यवस्था की गयी। अन्य बस्तियों में छतों की मरम्मत के लिए प्रतिवर्ष विचाली दी जाने लगी।

झोपड़ियों के सुधार के लिए योजना बनायी गयी और सन १९८९ तक प्रायः सभी बस्तियाँ झोपड़ियों का नवीनीकरण कर लिया गया। विचाली की जगह खपड़े लगाये गये और बहुत से घर मिट्टी की दीवार की जगह ईट की दीवार से बने। सी०आर०एस० की सहायता से फुलवारीटाँड करकेन्द, लकड़का, नयी दुनियाँ, जामाडोवा, प्रेम नगर तथा अन्य बस्तियों में १५० घरों तथा देहातों में १७ नए घरों का निर्माण किया गया। लायन्स क्लब की सहायता से दुर्गापुर, बनकटी, बालू गद्दा तथा नयी दुनिया एवं झरिया से ५७ घरों का नवीनीकरण किया गया। रोटरी क्लब धनबाद सौध की सहायता से १९८१ तथा १९८३ के बीच पलाटाँड में १० पक्के घरों का निर्माण किया गया। इसी क्लब के प्रयास से इस बस्ती में १९८६ में रोगियों के लिए ३० इन्दिरा आवास का भी निर्माण किया गया। कार्मेल स्कूल की सहायता से कुसुन्डा बस्ती में १९८७ में २ घरों का निर्माण किया गया। विदेशी उपकारकों की सहायता से १९८४ में पूरे अंगरा पथरा कोलोनी के २८ घरों का नवीनीकरण किया गया। चाँदमारी बस्ती के ५० घरों का नवीनीकरण भी इन्हीं उपकारकों की सहायता से हुआ। सन् १९८८ - ८९ में भुजुडीह बस्ती को नया रूप दिया गया। वहाँ ३० नये इन्दिरा आवास का निर्माण किया गया। डेमियन सामाजिक कल्याण केन्द्र के विशेष प्रयास से १९९० में देहात में नए घरों का निर्माण किया गया तथा अंगरा पथरा बस्ती में २८ घरों की मरम्मत की गयी। १९९१ में सिर्फ २ घरों का निर्माण किया गया। १९९३ में ५ घरों का निर्माण किया गया। अंगरा पथरा बस्ती में पुराने घरों के बदले फिलहाल उत्तम किस्म के १२ मकानों का निर्माण हुआ है। उसी योजना के तहत बी० एम० पी० में एक पक्के घर का निर्माण किया गया। पेय जल की समस्या कुछ बस्तियों में प्रारम्भ से ही रही है। इस समस्या के हल के लिए डेमियन सामाजिक कल्याण केन्द्र, द्वारा लकड़का, अंगरापथरा, कुसुन्डा तथा प्रेम नगर में जल का प्रबन्ध किया गया है। फुवारीटाँड, जामाडोवा, चाँदमारी, भोजुडीह, भौरा, बनकटी तथा वारामसिया मर्सी पोस्ट बस्तियों में सी०आर० एस की सहायता से कुएँ खोदे गये हैं। लायन्स क्लब की सहायता के दुर्गापुर में एक कुआँ तथा डोमगड में नल का प्रबन्ध किया गया है। भौरा कोलोनी को भी नल का लाभ प्राप्त है। इन सब प्रयत्नों के बावजूद वर्तमान में चाँदमारी, भुजुडीह, करकेन्द तथा डिगवाडीह में पेय जल की समस्या है। गर्मी के मौसम में चाँदमारी का कुआँ सूख जाता है। भुजुडीह के कुएँ में मिट्टी गिरने के कारण कुएँ का अस्तित्व ही मिट गया है रोगी दामोदर नदी के पानी का उपभोग करने को बाध्य हैं। करकेन्द बस्ती के नल बी. सी. सी. अधिकार की ओर से बन्द कर दिया गया है। डिगवाडीह में नल का प्रबन्ध नहीं किया जा सका है। करकेन्द तथा फुलवारीटाँड में तलाब का भी निर्माण किया गया है।

कुछ बस्तियों की विशेष समस्या बच्चों की शिक्षा की है। इन बस्तियों को समाज से बहिष्कृत समझे जाने के कारण सामान्य विद्यालयों में उनके बच्चों की भरती नहीं की जाती थी। अतः इन बच्चों की प्रारम्भिक शिक्षा के लिए हर बस्ती में स्कूल तथा शिक्षक की व्यवस्था की गयी थी। साथ ही उच्च शिक्षा के लिये गोमो में लड़कों तथा गोविन्दपुर में लड़कियों के लिए छात्रावास, सह. विद्यालय की व्यवस्था की गयी। इन छात्रावासों में रह कर लड़के - लड़कियाँ मैट्रिक तक पढ़ते हैं साथ ही व्यवसायिक प्रशिक्षा भी प्राप्त करते हैं। विद्यार्थियों की योग्यता एवं क्षमता के अनुसार कुछ विद्यार्थियों को उच्च शिक्षा तथा विशेष प्रशिक्षण का भी अवसर प्राप्त होता है। वर्तमान में ६ विद्यार्थी उच्च शिक्षा तथा ७ विद्यार्थी व्यावसायिक प्रशिक्षण प्राप्त कर रहे हैं। कुल मिलाकर अभी तक ४६७ विद्यार्थियों को ऐसा प्रशिक्षण दिया जा चुका है। इन कल्याणकारी कार्यों के साथ ही परिस्थिति एवं आवश्यकतानुसार अनेक अन्य कल्याणकारी कार्य भी होते रहते हैं जैसे रोगियों के पुनर्वास की व्यवस्था, कार्य स्थापन जरूरत मंद रोगियों के लिए जूतों की पूर्ति कृत्रिम अंगों तथा वैशाखी का प्रबंध, आवश्यकतानुसार ऋण के रूप में आर्थिक सहायता रोजगार के लिए सरकारी बैंको से ऋण के रूप में आर्थिक सहायता आदि। अबतक ३० व्यक्तियों को बैंक द्वारा ऋण प्रदान कराया गया है। जीविका उपार्जन के लिए २० व्यक्तियों की रिक्शे दिये गये हैं। कुछ रोगियों की समस्याएँ विराट है पर समाधान के साधन कम हैं डेमियन सामाजिक कल्याण केन्द्र का प्रयास रहता है कि इन्ही सीमित साधनों के द्वारा रोगियों को अधिक से अधिक लाभ पहुँच सके।

श्री. अ. लकड़ा



# *"Recent Prospects in Chemotherapy of Leprosy"*

**Dr. D. S. Chaudhury**

**Medical Adviser,**

**German Leprosy Relief Association - India.**

Combination therapy or multiple drug therapy in Leprosy was first initiated by Freerksen of Germany. The Drug "Isoprodian" along with Rifampicin has been used in several countries by Freerksen and his Colleagues with the active support of German Leprosy Relief Association. Malta virtually got rid of Leprosy with this therapy. This was reported by Freerksen and Rosenfeld in 1977.

Later in 1982, World Health Organization introduced multi drug therapy globally with Dapsone, Clofazimine and Rifampicin. The regimen employing the three drugs mentioned has been standardised with supervised monthly administration of Rifampicin - the best effective bactericidal drug in the combination.

Around 3 million patients are now on MDT in the World. At the commencement of MDT, in India 1.70 million patients were on MDT. This number came down to 0.55 million at the end of 1991.

The benefits of MDT are well known. The rapid emergence of drug resistance in Leprosy has been largely stopped. The effectiveness of the treatment is ensured by the decline in the relapse rate. The relapse rate in MB patients on MDT is 0.12 per 100 person years whereas in PB it is 0.13 per 100 person years. The prevalence of Leprosy has sharply come down in all the areas where MDT has been employed.

The outlook for treatment of Leprosy has been remarkably improved with time-bound or fixed-duration Chemotherapy and this is now the major tool to achieve global elimination of Leprosy. Elimination of Leprosy means reducing the prevalence of Leprosy to 1 case in 10,000 persons.

Even now, the need for new bactericidal drugs is appreciated. Three new groups of drugs are identified, and are currently being evaluated through planned studies. These include 4 - Fluoroquinolone drugs, Pefloxacin and Ofloxacin.



Ciprofloxacin is not included in this series. These drugs act on DNA gyrase and are rapidly bactericidal. Minocycline is another drug which acts on ribosomes and inhibits protein synthesis. Another drug- Clarithromycin also acts very much in a similar way. These drugs are likely to have an additive effect with Rifampicin which is still considered as the most remarkable bactericidal drug and is the vital component in the MDT regimen.

Chemotherapy of Leprosy has therefore opened hopeful possibilities. Our objectives to achieve a significant decline in the prevalence of Leprosy to a level where Leprosy will be eliminated as a public health problem, rests now on our managerial competence to use Chemotherapy countrywide and globally.

Let us not forget that drugs need our determined support and if I may put it thus - dedicated action in the following areas.

- ▼ Early detection and regular treatment of patients
- ▼ Providing MDT to all the patients on domiciliary basis
- ▼ Education of the patients, their families and the community
- ▼ Social and economic rehabilitation of the patients in a practical and sustainable manner.

Until a few decades ago, Leprosy was a neglected subject. Leprosy patients were segregated and a few well-meaning charitable institutions provided custodial care.

With the advent of independence and the great influence of Mahatma Gandhi, a National approach was made and from 1954, National Leprosy Control Programme got into action, fully utilising the recent knowledge about the disease - its causation, spread and management. The late Prime Minister Indira Gandhi declared our commitment to eradicate Leprosy in 1983, and today we are in that gigantic but challenging task to reach the avowed goal of eradication by the year 2000 A. D. Succeed we must, with the grace of God, in this endeavour of care and devotion to the under-privileged.

□□□□□□□□□□

# CARE OF INSENSITIVE FEET

By Jean Watson , Consultant Physiotherapist, The Leprosy Mission International



Long walks are dangerous  
for insensitive feet

## 1. Introduction

Many patients judge the success of a leprosy control and treatment programme by the control of its most obvious feature - deformity. In the eyes of the patients, the programme has failed if their feet continue to be ulcerated and destroyed. The general public too, often regard wounds on the feet as a major sign of active leprosy. If health workers are to be effective in teaching patients to care for their feet, they must themselves first understand the nature of the problem. How does leprosy affect the feet?

What causes injuries, and what can be done to protect insensitive feet ?

## 2. How does leprosy affect the feet?

The nerves supplying the foot (peroneal and tibial) may be damaged in leprosy. This results in a loss of sensation, sweating, and muscle strength. If it is not protected, the foot develops cracks and wounds, and it may also become dropped and turn inwards. The most common sites of foot wounds are the places that take the greatest pressure during walking. (Fig. 1 & 2 )



Fig.1: Most wounds are  
under the forefoot

## 3. Four causes of injury to insensitive feet

### □ Walking too much

The most frequent cause of wounds on insensitive feet is walking, running or jumping too much. These activities cause injury within the insensitive foot at the walking pressure sites. Because the person feels no pain, he continues to walk and the injury develops into an open wound.

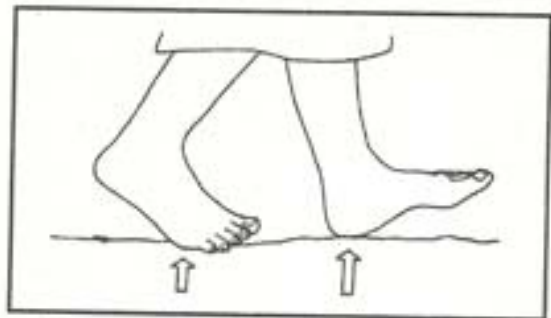


Fig.2: Places that take greatest pressure





Fig. 3: How a wound develops.

#### ☐ *Soft tissue damaged by previous wounds.*

Normally, the tissue on the sole of the foot is pliable and thick enough to act like a cushion. Each wound which damages this cushion, causes scarring. Tissues which are already damaged and scarred are more likely to be injured again when the person walks with unprotected feet. Serious wounds may cause roughening of the ends of those bones which take pressure during walking.

#### ☐ *Puncture wounds*

These can be caused by stepping on a sharp object such as a thorn or a nail in the shoe.

#### ☐ *Tight footwear or bandages*

Footwear that does not fit or allows too little room for clawed toes or a bandaged foot, may itself injure the foot (see figure 4). The pressure from tight footwear can hinder the flow of blood to the skin, and a small area of tissue may die.

## 4. Neglected injuries

Small injuries on insensitive feet are often neglected or not cared for correctly, because they cause no pain to the patient. So, a simple small clean blister bursts and becomes infected by wound germs. The infection of the wound is neglected and so it spreads and the tissues of the toes may die and the toe will be lost (see figure 5). When a blister develops, it is important to empty it of all fluid, so that it does not become infected.

## 5. Protective footwear—who needs it?

Suitable footwear plays an important part in protecting insensitive feet against injury. All patients with sole sensory loss should wear protective footwear throughout their lifetime. This is true whether or not they have sole wounds. They also have to learn how strong their feet are and how far they can safely walk. Patients who have loss of feeling only on the top (dorsum) of the foot should choose the design of the uppers with care. They do not need soft insoles for their footwear. In this article

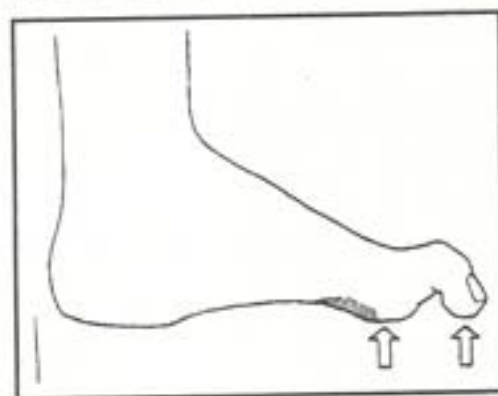


Fig 4: Clawed toes are in danger of injury



Fig. 5: This can happen if a blister is not covered.

Your foot should sink into it, but you should not feel the ground through it. Buy just a few sheets at first, and check to see that the material does not wear thin or tear too easily.

we will consider the qualities of footwear for patients with insensitive feet, but without gross bony deformity.

## 6. Qualities of protective footwear

Footwear for people with insensitive feet should include the following qualities : -

- a soft insole
- a tough undersole
- a well fitting upper
- adjustable fastener
- style acceptable to the patient
- suitable for local conditions
- locally obtainable and replaceable

□ *A soft insole.* This should be 1 cm deep and will provide a cushion for the foot. It will distribute walking pressure and so reduce the danger of wounds occurring over the points of high pressure. (See figure 1 & 2).

Your leprosy control programme office may stock suitable material. If you have to buy your own insole material take your shoes off and try stepping and hopping on the sample.

For footwear for just one or two people and not a large number of patients, look for suitable slippers and use these as insole material. (See fig 6).

□ *A Tough undersole.* This needs to be hard enough so that it cannot be pierced by thorns or other sharp objects. Old car tyres are often used for this purpose, and last a long time.

□ *A well fitting upper.* The design of the upper part of the footwear should include the following characteristics.

- It must fit well, but leave plenty of room for

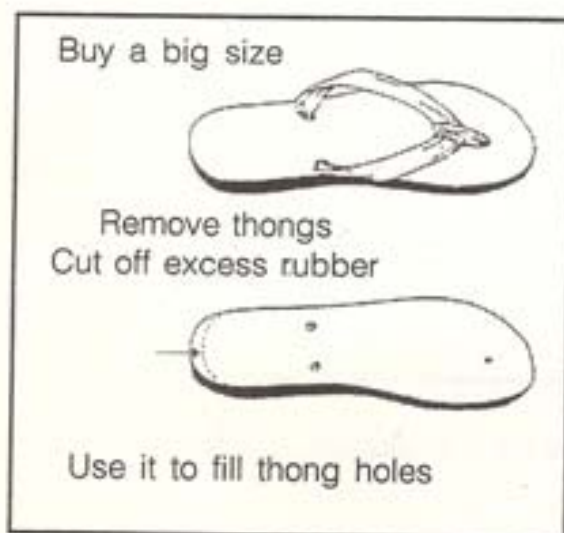


Fig. 6: Use soft thong slippers for insole material





Fig. 7: A well-designed protective shoe

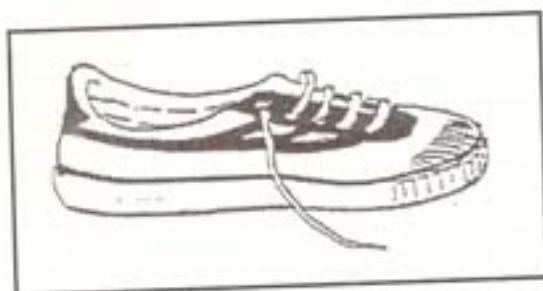


Fig. 8: Find footwear acceptable to patients

clawed toes. It should include a heel strap or have a filled in heel counter. Without a heel strap, patients with clawed toes tend to claw their toes even more in an effort to keep on footwear. This causes small wounds on the toe tips.

- The footwear should have adjustable fasteners, straps or laces over the forefoot, which can be loosened to make room for bandages or a swollen foot.

□ *Style of footwear acceptable to the patient.*  
Try hard to help patients find footwear that they really like and can afford to replace year after year. If possible, offer a variety of colours and styles. If a patient is not happy with the footwear, despite your best efforts, try to help him understand the usefulness of protective footwear.

□ *Footwear must suit the local conditions*  
In hot dry areas where cracked skin is a serious problem, it is preferable to have closed footwear. If patients have open footwear they should try to wear socks. In stony areas, where the toes are likely to be injured, use footwear with a cap or straps over the toes to protect them. In muddy conditions, use wide straps that are strongly attached, or an enclosed upper. Select or design footwear that can be safely repaired locally or replaced promptly. You may find it difficult to find all of these qualities and

you will need to compromise. But remember, the insole is extremely important. If more walking-pressure wounds are to be prevented it is essential that the patient walks on improved insoles or walks less. If no change is made then the wound is likely to recur and that is serious.

Remember - the insole is important.  
If more wounds are to be prevented,  
it is essential that the patient walks  
less, or walks on improved insoles

(For further reading - Insensitive Feet by P W Brand)

# A New Short-Term Combination Therapy of Leprosy

## Extracts from Paper Presented By

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**Key Words.** Leprosy therapy. Short - Term therapy of leprosy. Complex combination.

**Abstract.** Report on the results with a new therapy with a complex combination (rifampicin+Co-trimoxazole+isoniazid) for the treatment of leprosy. High tolerance. Duration of treatment 2 months.

In 1970, after the development and introduction of a combination therapy consisting of rifampicin (RMP)+isoniazid (INH)+ protionamide (PTH)+dapsone(DDS)(Isoprodian-RMP), it became for the first time possible to finally cure leprosy patients within a relatively short time. Before that time, leprosy was not curable, and leprosy patients had to be treated with DDS.

As extensive studies had clearly shown the high tolerance and efficacy of this combination, a leprosy eradication program was started in 1972 on Malta (Malta Projects), which has meantime been successfully concluded. The average treatment time was 2 years. Thanks to the support of the Maltese government, a follow-up period of almost 15 years was possible (relapse control period). During this period of time no relapse occurred. This result allows the conclusion that leprosy can be eradicated by means of a highly effective chemotherapy, both faster and safer than it would ever be possible by protective vaccination.

Isoprodian-RMP proved to be effective not only in leprosy, but also in tuberculosis and other mycobacterial infection, e.g. Mycobacterium avium infection. On the basis of this finding, another eradication project, the Paraguay Project, was launched in 1979, covering about 6,000 leprosy cases and approximately 24,000 tuberculosis (TB) cases. By now, more than 4,000 leprosy patients have already been on treatment.

In 1981, 10 years after the introduction of Isoprodian- RMP for the treatment of leprosy, the principle of multidrug therapy (MDT) and also the recommendation of a treatment duration of 2 years and discontinuation of treatment, in spite of a positive bacteriologic index, were taken over by the WHO. They suggested another combination in which PTH and INH are replaced by clofazimine (CLO), and RMP is administered only once a month.

In comparison with Isoprodian-RMP, this combination has several disadvantages:

- It is not effective in TB, which means that it cannot be administered to patients suffering concomitantly from leprosy and TB. An existing TB has to be treated additionally.
- The addition of RMP once a month has no theapeutical effect. In paucibacillary cases, it is virtually the DDS monotherapy of the forties. Multibacillary cases are treated with a two-



drug combination (CLO+DDS), supplemented by the ineffective, cost-increasing addition of RMP.

This has been shown by preliminary experimental studies, and has been confirmed by numerous reports on clinical relapse in paucibacillary cases.

- If DDS resistance exists, as is frequently the case in certain areas, this treatment is monotherapy with CLO against which *Mycobacterium leprae* may quickly become resistant.
- If there is a simultaneous infection with *M. tuberculosis*, RMP-resistance is likely to develop as it is not prevented by CLO and DDS under the given conditions. So far, no clinical and experimental studies have been carried out to elucidate whether *M. leprae* may also become resistant to RMP under these conditions.
- If, according to the American treatment scheme, RMP is administered daily with CLO and DDS, a synergistic effect between RMP+DDS may result [19,20]. CLO+RMP were shown to yield a synergistic effect in animal studies; theoretically, it may have an effect in infections with *M. leprae* and *M. tuberculosis*. However, in vitro studies (checkerboard) conducted by Seydel did not reveal such an effect against *Mycobacterium marinum* and *Mycobacterium lufu*. The effect of CLO and RMP on each other in practice has not been sufficiently investigated, either experimentally or clinically. Above all, the optimum dose proportions should be determined. In animal studies, Milan and Moulia-Pelat observed antagonism between RMP and DDS.
- RMP+CLO+DDS is not available as fixed combination, which greatly limits its use for outpatient treatment, especial in tropical countries: The regular intake of the total combination is not ensured (omittance, over/under-dosage; singular components of the combination in monotherapy with the threat of resistance); the therapeutical effect is reduced or cancelled if the singular components of the combination are not taken in the correct dose proportion; the separate administration of the components of the combination reduces the ease of application. Besides, it is too demanding for the patients and the procedure becomes cumbersome and expensive through the need for supervised treatment.
- Many patients refuse to take RMP+CLO+DDS because of the skin discoloration caused by CLO.
- 500 mg/day PTH, which was suggested as an alternative, is too high a dose; 250-350 mg/day are correct when used in combination.

Once the advantages of the new therapeutic principle (MDT short-term chemotherapy with fixed combinations) had become clearly apparent after the development and introduction of Isoprodian RMP, our research efforts were directed at the development of therapeutic alternatives; the reduction of treatment time, resulting in increased compliance; increase in tolerance; extension of MDT to a multi-disease therapy.

Through inclusion of co-trimoxazol (SXT), two highly effective combinations were obtained (RMP+SXT+PTH) and (RMP+SXT+INH).

In this paper, the clinical results obtained with the combination RMP+SXT+INH (Cotrifazide) in 30 lepromatous leprosy (LL) cases are reported and discussed.



Our previous studies in the field of infections had shown that integration of the results of preliminary experimental studies (in vitro studies, animal experiments, determination of plasma concentration and serum activity in man ) provide detailed information on the substances to be used and the therapeutic effects to be expected. Thus, pilot trials with patients were justified. This procedure had already proven suitable in Malta and in Paraguay, and was also applied with new combination. It yields clear-cut clinical results in a much shorter time than the outmoded and complicated comparative trial, which cannot be conducted in leprosy and in most of the tropical countries, due to outer circumstances.

On the basis of experimental results with RMP+SXT+INH, it was to be expected that 6 months of therapy at the utmost would be sufficient for man, possibly 2 months only. In each individual case, it was to be decided after 2 months whether treatment was to be continued for a total of 6 months, or whether it could be discontinued earlier. The initial clinical result allowed discontinuation of treatment after 2 months.

The final criterion for this decision is the occurrence or nonoccurrence of relapses. For this reason, all cases are carefully followed up for a prolonged period of time so that therapy can be resumed, should it be necessary.

### **Material and Methods**

30 previously untreated patients (28 LL and 2 borderline leprosy cases, the youngest 20 years old, the oldest 80 years old; 24 men and 6 women) were treated as outpatients with the combination RMP 460 mg + SXT 1,280 mg + INH 320 mg. This daily dose was taken in 4 tablets (115 mg RMP + 320 mg SXT + 80 mg INH per tablet), which were taken in two equal portions (2 tablets in the morning and 2 in the evening, except on Sundays). Before the start of treatment, the usual laboratory examinations were made (hemogram, blood test, blood sugar, urine and liver test, examination of stool for parasites), a skin slit was made and a biopsy was taken for histological examination.

During the first 2 months of treatment and during 6 months after its termination skin slits were made at 2-week intervals, beside a complete clinical examination. Then the patients were controlled monthly (including skin slits ) for another 6 months. It is intended to follow up the patients for 5 years, with check-up every 3 months (including skin slit).

### **Results**

All 30 patients could be released from treatment after 2 months. By now (May1, 1991), all have been closely followed up for at least 2 years. So far, not a single relapse has occurred. Follow-up is continued.

At the start of treatment 15 of the 30 patients had lepromas. In 2 patients they had disappeared when treatment was stopped after 2 months, in 10 patients they were regressing during treatment, in 3 patients no change was observed by the end of treatment. In the 6th month of the follow-up period, 9 patients were free from lepromas, in another 6 patients they disappeared during the next 6 months.

In 21 of the 30 patients, the classical erythematous infiltrative edematous skin processes were seen in the face and the extremities at the beginning of treatment. They had completely disappeared



in 19 patients when treatment was stopped. In the remaining patients they disappeared with in the follow - up period.

During treatment and the follow-up period reactions occurred in 13 patients, in 3 of them reversal reaction. Treatment was not discontinued during this period, but the patients were given corticosteroids in addition.

At the start of treatment, 7 patients had erythema nodosum leprosum (ENL), which had considerably improved in 5 of them by the end of treatment; 2 patients received thalidomide; 1 patient showed Lucio symptoms at the start of treatment, which subsided quickly during treatment.

The tolerance of the medication was high. The symptoms the patients complained about (headache: 8 patients, vertigo and lumbalgia: 4 patients, epigastric pains: 2 patients) were mild and unspecific. In no case did they require interruption of therapy, and it is not sure whether they were really caused by the medication.

The bacteriologic picture at the start and the end of treatment and during the follow-up period clearly revealed the rapid disappearance of the solid and fragmented forms, and in particular the concentration of granulated forms, which may be considered as an expression of increased cellular degradation. If the granulated forms are regarded as a biologically uniform group (including the globi) and as bacterial residues which do not multiply, it results that

- (a) the total bacterial load approaches with varying rapidity and intensity, in part quickly and linearly, in part intermittently;
- (b) this process, initiated by the therapy, continues after discontinuation of treatment;
- (c) in the evaluation of skin smear (bacteria) a singular finding is of little value. It may lead to wrong conclusion. It is important to check the result of treatment at regular and short intervals in order to get a continuous picture of the course.

Meanwhile, another trial conducted in Nepal with 35 patients under more severe outer conditions has been concluded with comparable results.

## **Discussion**

The introduction of combination therapy was a great progress in the treatment of leprosy. However, alternative drug regimens are needed, enabling the physician to adjust treatment to individual and regional requirements. There are many factors which may lead to irregularities or discontinuation of treatment.

## **Bacteriologic Questions**

The so- called bacteriologic index (BI) is no criterion for evaluating the performance of a medication, and even less for its selection, as was already shown in the Malta Project. The bacteriologic index covers indifferently all bacteria of a skin smear detectable by the usual methods of fixation and staining. No distinction between dead and live bacteria can be made. Any counts made are highly doubtful. They are based on material detected in a skin smear or a biopsy and, as such, depend on a number of imponderables and methodological deficiencies. They have no quantitative basis as there is no way of knowing (no matter how many measurements are made) the



bacterial load and its distribution in the organism of any individual case. If a large number of bacteria can be detected, one may dare to postulate that a similar large number may exist in the total organism. However, if the examined material is negative, the bacterial load in the organism (liver, spleen, lymph organs and tissues, testicles, eyes, vessel walls, blood, nerve) may nevertheless be large, and the symptoms of the disease considerable. The negativity of TT cases allows only a very general judgement. It is doubtful to use a less effective drug regimen in these cases (because the smear is negative or because negativity is equated with high resistance). At best, treatment time with the same medication may be reduced, but this should be made dependent upon the initial result of treatment. For this reason alone it is wrong to recommend different drug regimens for paucibacillary and multibacillary cases. Even negativity obtained under treatment must be viewed critically. It may be reached rapidly, in parallel to clinical improvement. It may also hurry on ahead of improvement, or lag behind, occasionally in such ways that persons not familiar with them become worried and misinterpret as change for the worse.

In a WHO recommendation negativity (no detection of bacteria in the smear, bacteriologic index=0) is only considered desirable, but not a prerequisite for discontinuation of treatment. This is a sound basis as the bacteria detectable in the skin represent only a portion (probably the smallest portion) of the total bacterial load, comparable to the TB bacteria detectable in the sputum in the case of tuberculosis. In TB, culture of the bacterial shows whether they are alive or not. Unfortunately, this is not possible in leprosy. This gap can in part be overcome by the mouse footpad test. When live bacteria can be detected with this test during the course of therapy or when one intends to stop treatment, a positive test result indicates that the live bacterial population has not been eliminated by the therapy. A negative result, however, should not be overrated, as it may be due to methodical deficiencies and various imponderables inherent in such methods.

It is not known how the bacteria get into the skin, why they distribute in the typical way, and which pathogenicity the various forms have. The granulated forms stem from at least two sources:

- from clotted bacterial residue resulting from intracellular degradation which cannot be further degraded or influenced by chemotherapy;
- from very 'young' forms of bacteria stemming from division of solid forms, as shown electronoptically, and whose multiplication is inhibited by therapy.

The detection of live bacteria in spite of treatment with highly effective antimycobacterial drugs is sometimes explained by the occurrence of 'persisters', i.e. bacteria which are not affected by antibacterial substances despite their sensitivity to them. These persisters, which are considered alive and virulent, might maintain the infection or cause relapses. Whether persisters really exist (this assumption was voiced in the 50s on the basis of the limited chemotherapy at that time, above all TB therapy can neither be proven nor disproven with the available methods. It is therefore safer to start from the fact that the detection of live bacteria after treatment is an indication for insufficient therapeutical performance.

## **Rifampicin**

The antibacterial activity of RMP in leprosy patients is not known as *M. leprae* cannot be cultivated, i.e. neither cultures nor subcultures can be made, the latter being imperative for determining the bactericidal effect. RMP was shown to be very active against *M. tuberculosis*.



Under therapeutic conditions, administration of a single dose of 600 mg in the morning results in an inhibiting effect for approximately 6 h. Later, the concentration drops so much to be therapeutically ineffective. RMP is unlikely to have a bactericidal effect in leprosy as its activity against *Mycobacterium marinum* is very low, and virtually nil against most of the *M. avium* strains.

As all these effects depend on the experimental parameters of the trial set-up, it is not proven that they will also be obtained under therapy. In vivo studies involve a number of additional parameters likely to reduce the activity. However, the bactericidal effect obtained in vitro proves the high antimicrobial activity and the potential value of the substance. But it is questionable whether bactericidal effects are really of importance for therapy.

Whenever a bacterial population is continually subjected to antibacterial action (i.e. if the supply of bacteria is stopped), the germs, also the live ones, are degraded by the biologic tools of the organism, and eliminated. Precisely this continual degradation is not obtained with single doses of RMP.

### **Reactions**

If leprosy reactions of any kind occur during treatment, or if they existed already before start of treatment, a special therapy may be required in spite of the use of a highly effective chemotherapy. Although the various kinds of reaction can be distinguished and described clinically, it is not known why they occur in the typical forms in the individual cases. Through highly effective chemotherapy, the bacterial load and hence the amount of antigens is reduced. This has the same effect on all immunologically caused reaction, but occurs with varying rapidity.

Also the bacteria and bacterial residues which are unable to multiply have immunogenic potency. This would explain the fact that reactions may occur for some time after elimination of living bacteria. Such reactions must not be regarded as relapses, and chemotherapy must not be resumed as it is ineffective in this case.

The pathohistological tissue processes seen in biopsies are also induced by dead bacteria. The histological picture therefore gives no clear-cut evidence on the 'activity' of the process.

Although we know almost nothing about the bacteriologic aspect of leprosy the examination of the skin smear gives some information on the bacterial load in the organism at the start of treatment and on the concentration on granular forms typical of the therapeutic effect.

Through integration of the clinical and bacteriologic findings during the course of treatment, it can be recognized whether the healing process has been initiated. However, evaluation of the results requires much experience and good laboratory technique (including the mouse footpad test). These are no routine measures and should be made in special, well equipped laboratories with skilled personnel.

### **Therapeutic Technique**

No scientifically satisfying, easily applicable methods are available to establish the timing of release from treatment.

As elsewhere in medicine, one should distinguish in leprosy between medical treatment (which

is based on recommendations, but involves no studies), and the evaluation of medications, in which complete and critical use is made of the information obtained by the available methods.

Duration of treatment must be fixed. This procedure is not ideal, but a practical necessity. Duration recommendations are based on experience gained under scientific conditions and vary with the treatment scheme used.

A treatment duration of 2-4 months is suggested for the new therapy described in this paper, depending on the clinical and general state of the individual case. The suggested durations of treatment are the minimal length and may be extended if considered necessary by the physician.

Noncompliance, one of the most difficult problems encountered in practice with leprosy therapy, is mainly due to the prolonged duration of treatment with little ease of application (e.g. combinations where the components have to be taken singly) and poor therapeutic performance. Compliance is greatly enhanced by the use of RMP+SXT+INH, as fixed combination, which results in a rapid subjective and objective improvement with only minor side effects.

### **Further Development**

This report is restricted to leprosy treatment. However, our basic research work is directed at the goal to extend the MDT to a multidisease therapy. The combination RMP+SXT+INH presented here is not a special drug regimen for the treatment of leprosy, but an almost universal antimycobacterial medication, covering both TB and leprosy, but which is also effective in some nonmycobacterial diseases (e.g. opportunistic infections in AIDS or diseases caused by hospitalism).

Gradually, chemotherapeutical practice is no longer characterized by the demand for drugs having a specific organism, i.e. monotherapy. The new goal are drugs with a wide antimicrobial activity inhibiting the multiplication of pathogenic organisms, thus preventing (prophylaxis) infectious diseases or allowing their final cure (treatment). This purpose cannot be obtained with wide-spectrum antibiotic drugs which are in reality given as monotherapy with a single mode of action. Nor can this goal be attained by administration of several antimicrobial drugs which have to be taken separately ('serial combinations'). It is imperative to administer combinations making use both of the antimicrobial activity and the synergistic effects of the incorporated substances and yielding a high antimicrobial action involving three or four modes of action in a fixed combination ('complex combinations'). The advantages offered by this therapy for the so-called Third World, but of course also for us, are evident. This development can only be pointed out briefly here. A detailed report will be published later.

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### **FOR ACKNOWLEDGEMENT AND REFERENCES,**

VIDE CHEMOTHERAPY  
1991; 37: 353-363



# Chemotherapy of Leprosy

It has been estimated by Shepard that in a new untreated multibacillary patient, the bacterial population is  $10^{12}$  organisms, 1/10th of which are alive ie  $10^{11}$ . The principles of combined chemotherapy depend on the fact that if the bacterial population is rapidly reduced from  $10^{11}$  to  $10^5$  or less, the emergence of new resistant mutants can be minimized or stopped. The evidence based on the chemotherapy of tuberculosis shows that the more rapid the anti-bacterial effect, the less likely are the persisters to emerge. If a drug has only bacteriostatic activity, the bacilli resume multiplication as soon as the serum level falls below the minimum inhibitory concentration (MIC). Compliance of treatment, therefore, becomes critical. When the drug has bactericidal activity, the compliance become less critical.

Objectives: The objectives of multi-drug treatment are :

- to sterilize the leprosy lesions in the shortest possible period of time so as to interrupt the transmission of infection;
- to prevent the emergence of resistant strains of *M. leprae*;
- to cure the patient, minimize the development of deformities and prevent treatment failures; and
- to prevent relapse.

The three drugs employed in the programme are dapsone, rifampicin and clofazimine.

Dapsone : Dapsone is cheap, effective and virtually without toxicity. At a dose of 100 mg daily it is weak bactericidal against *M. leprae* in man. Such a dose results in peak serum levels that exceed the minimum inhibitory concentration (MIC) of dapsone against leprosy bacilli by a factor of 500. This large therapeutic margin is exceptional and unique. At this dose the drug inhibits the multiplication of mutants of *M. leprae* with low or even moderate degree of dapsone resistance. Dapsone has a long half life of about 24 hours.

Rifampicin : It is highly potent bactericidal drug and its rapid action in killing *M. Leprae* is due to inhibition of ribonucleic acid (RNA) synthesis. It is effective against dapsone resistant bacilli.

Clofazimine : This is a red Riminophenazine dye which is bacteriostatic in action. It is virtually non-toxic when administered in doses not greater than 100 mg daily. However higher doses are used to manage type II reaction.

## Treatment of Multibacillary Leprosy

The treatment of choice for multibacillary leprosy is by combined chemotherapy.

### The criteria for selection of multibacillary patients :

- all skin smear positive patients irrespective of their classification;
- all clinically active BB, BL and LL patients whether skin-smear positive or negative;
- all active BT cases with ten or more lesions including nerve and skin lesions, irrespective of their smear status;

- all skin smear positive relapse after dapsone monotherapy or MDT irrespective of the classification;
- multibacillary patients on dapsone monotherapy who have become bacteriologically negative within the last 24 months;
- paucibacillary patients on MDT, who at the end of 12 months of therapy shows new lesions or extension of old lesions.

### **In patients on dapsone monotherapy :**

- multibacillary patients who do not show clinical inactivity and /or gross reduction of bacterial load after 5 years of regular dapsone monotherapy;
- paucibacillary patients who do not show clinical inactivity after 2 years of regular treatment with dapsone monotherapy;
- relapsed multibacillary or paucibacillary cases during or after dapsone monotherapy; and
- proved or even suspected patients of dapsone resistance-primary or secondary.

### **a. Regimen**

All the registered cases will receive daily supervised treatment in the initial 14 days as follows

Rifampicin	600 mg
Clofazimine	100 mg
Dapsone	100 mg

(This daily intensive therapy for 14 days should however be used only when separate instruction have been issued).

Continuation Phase : The treatment is given at least for a period of 2 years with the following drugs

Rifampicin	: 600 mg, once a month supervised.
Clofazimine	: 300 mg, once a month, supervised and 50 mg daily self-administered.
Dapsone	: 100 mg daily, self-administered.

### **Note :**

1. Adults less than 35 kg in body weight should receive 450 mg rifampicin daily, during the intensive phase and thereafter once a month in the continuation phase.

2 The daily 50 mg clofazimine is recommended to be self-administered as it helps in patients compliance. If 100 mg capsules only are available, the drug should be taken on alternate days.

Children : In children, the doses are proportionately reduced. The recommended schedule for children in the age group 6-14 years is given in table-1.

Duration of Treatment : The treatment should be continued for a minimum period of 24 months.



**Table - 1**  
**Recommended dose for Children**

Phase	6 to 9 years	10 to 14 years
Intensive for 14 days	Rifampicin 300 mgm daily Clofazimine 50 mgm daily Dapsone 25 mgm daily	Rifampicin 450 mgm daily Clofazimine 50 mgm daily Dapsone 50 mgm daily
Continuation for a minimum of 2 years	Rifampicin 300 mgm once monthly Clofazimine 100mgm once monthly and 50 mgm twice weekly Dapsone 25 mgm daily	Rifampicin 450 mgm once monthly Clofazimine 150 mgm once monthly and 50 mgm on alternate day Dapsone 50 mgm daily

### **b. Regularity of Treatment**

Adequate treatment implies that the patient has taken 24 monthly supervised dose of combined therapy within 36 months. A patient may be considered on regular treatment, if the combined therapy has been taken for at least two-thirds of the period at any interval of time. For example, if the patient has had 8 full months of combined treatment during the 12 month period, he or she can be considered to have received regular treatment.

The above multidrug treatment is designed for all categories of multibacillary patients, including

- freshly diagnosed untreated cases;
- patients not responding satisfactorily to previous dapsone monotherapy;
- dapsone resistant patients; and
- patients who have relapsed while on Dapsone monotherapy or after its cessation.

### **Treatment of Paucibacillary Leprosy**

Paucibacillary multidrug regimen is required for Indeterminate, TT and BT cases as well as for pure neuritic patients, provided they are smear negative.

#### **Regimen :**

Adults: Rifampicin is given once a month in a dose 600 mg under supervision and dapsone 100 mg daily, self administered. For adults below 35 kg in weight the dose of rifampicin should be 450 mg once monthly and dapsone 50 mg daily.

Children: The dose should be proportionately reduced as shown in table -2

**TABLE - 2**

Dose for Children with Paucibacillary Leprosy

Drugs	0-5 years	6-14 years
Dapsone daily	25 mgm	50 mgm
Rifampicin monthly	300 mgm	450 mgm

## **Duration of Treatment :**

Treatment should be continued till 6 of the monthly doses has been administered. If the treatment is interrupted for some reason, the regimen should be recommended from where it was left off to complete the full course, provided that 6 monthly doses are given within a period of 9 months. Clinical and bacteriological assessment must be under-taken by a medical officer or a non-medical supervisor. Treatment can then be terminated if :

- There is no extension of existing lesions or appearance of new lesions; and
- There is no new nerve involvement or paresis/paralysis.

Before discharge, the patient should be informed that the reduction or disappearance of the lesions would occur gradually and that, if at any time, new lesions appear, he must report for advise immediately; also, that it was not necessary to seek treatment elsewhere.

It takes nearly 6 months for clinical inactivity to be achieved with chemotherapy. The purpose of the short term course is to render the patient free from viable bacilli and to initiate regression of the disease, resolution of skin and nerve lesions takes place gradually, brought about by the high cell-mediated immunity. It should also be remembered that some lesions are not partially reversible or even irreversible and may, therefore, persist. Rarely, lesions of a tropic or degenerative nature occur much later and should be ignored.

Occasionally on completion of adequate treatment (6 supervised doses of rifampicin), the lesions may not show regression. This is liable to occur especially in patients who are smear negative and have multiple lesions, widely disseminated symmetrically or bilaterally. The diagnosis then, should be carefully reviewed by the medical officer after detailed clinical and bacteriological examination for any error in classification. If the classification was correct, the treatment should be continued with rifampicin and dapsone in the same doses for a further period of 6 months. If the disease was wrongly classified, the treatment should be changed to that recommended for multibacillary disease.

## **Regularity of treatment**

For paucibacillary patients, adequate treatment implies intake of 6 doses of combined therapy at monthly interval within a period of 9 months. Such patients when taken off the drugs will be said to have completed treatment.

## **Type of patients :**

The proposed regimen is designed for the treatment of all categories of paucibacillary patients including :

- newly diagnosed and previously untreated patients;
- primary dapsone resistant patients; and
- dapsone treated paucibacillary patients who relapse.

## **Courtesy:**

National Leprosy Eradication Programme. Operational guidelines on case detection, treatment, follow up and reporting forms 1992. Leprosy Division: D G H S, Ministry of Health & Family Welfare Nirman Bhawan, New Delhi.



## *Spread the Word*

Leprosy is like any other disease. And it is the least infectious.

Leprosy is caused by germs. It is neither hereditary nor a curse of the Gods.

Eighty percent of leprosy cases in India are non-infectious.

A pale or red patch on the skin may be leprosy. Do consult a doctor.

Leprosy is completely curable with regular treatment.

Early detection and regular treatment prevent deformities and disabilities.

Help to overcome fear, encourage early detection and sustained treatment.

Leprosy patients can continue to live at home and do normal work, while under regular treatment.

Do not isolate leprosy patients. Accept them in the family and the community.



A major obstacle is the general public ignorance and superstition regarding leprosy. People tend to evade investigation and hesitate to admit to the disease at the early stages when a cure could be complete and easier. This sense of shame is out-dated and dangerous.

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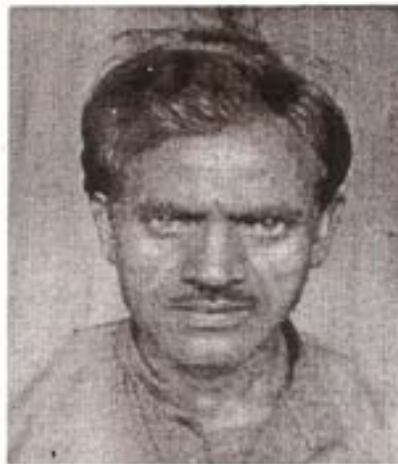
**Dr. H. S. Nandy**  
Senior Residential Medical  
Officer & Zonal Co-ordinator



**THE STAFF WHO RENDERED MORE THAN  
20 YEARS OF DEVOTED SERVICE AT NIRMALA**

- |   |                   |          |
|---|-------------------|----------|
| 1 | MR MICHAEL DAS    | 23 YEARS |
| 2 | MR MANBHULA BAWRI | 21 YEARS |

**THE STAFF WHO RENDERED 25 YEARS OF  
DEVOTED SERVICE AT NIRMALA**



MR HUSSAIN ANSARI

**DSWC PLACES ON RECORD THE SERVICES  
RENDERED BY**



MR JAGDISH SIRCAR,  
who retires on 1/5/94

## Stop.. Think .. Realize..

*Oh! God, you created the universe*

*Oh! God, you formed all of us creatures;*

*Oh! God, you in 'four own image, did create man,*

*Oh! God, but man in wantonness upset your plan.*

*Oh! God, you carved me in your own image,*

*Oh! God, you put me in my mother's womb,*

*Oh! God, you fitted me with my bodily organs,*

*Oh! God, you shepherd me from cradle to the tomb.*

*Once I was secure and strong*

*Once my body was altogether whole,*

*A day came when my strength broke down.*

*There was none with me to console,*

*But His messengers met me*

*His agents received me;*

*You God have received me again,*

*And I can smile even in my pain.*

*Yes, then realize, O my brother,*

*You are precious, more than any other;*

*Have they called you a 'black-spot'.*

*That, decidedly, you are not,*

*You, too, then to the universe do belong;*

*You, too, can sing the sweetest song;*

*Your body functions in all ways so fine,*

*Praise the lord, your Saviour divine.*

— — — — —

### *. The Wounded Healer.*

*Served by my human caring hands*

*He is cured by the Saviour's wounded hands.*



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(COMMUNICATIONS DESIGNER)

VHAI, NEW DELHI

CHIEF CO-ORDINATOR ; DIRECTOR, DSWC

**D. S. W. C. places on record the services offered by the above committes and individuals.**



### Leprosy can be treated by General Practitioner's

- Leprosy is Curable
- Advise Regular Treatment
- Advise Adequate Dosage
- Advise Adequate Duration
- Advise care of loss of sensation ( partial/complete) and other deformities.

#### Multi-Drug Regimen Advised for Treatment of Leprosy Cases

##### Classification

##### MB

- a) Indeterminate (smear positive)
- b) Lepromatous
- c) Broderline Lepromatous
- d) Poly neuritic (more than one nerve Involvement)
- d) Borderline Tuberculoid (more than 9 lesion)
- e) Borderline borderline

##### PB

- a) Indeterminate(Smear-Negative)
- b) Tuberculoid
- c) Poly neuritic (One nerve)
- d) Borderline Tuberculoid(1-9)

##### MDT Objectives

Multi-drug treatment of leprosy cases has been recently introduced under the National Leprosy Eradication Programme with the following objectives:

- 1) To Convert all infectious cases as non-infectious cases in a shortest possible period.
- 2) To prevent dapsone resistance;
- 3) To reduce the duration of treatment; and
- 4) To Prevent deformities.

##### Multi-Drug Treatment Regimens:

##### **I. Multibacillary cases:**

##### a) Once monthly supervised doses for 24 months at the clinic:

Rifampicin	600 mg	450 mg	300 mg
Clofazimine	300 mg	150 mg	100 mg
Dapsone	100 mg	50 mg	25mg

b) Daily Domiciliary doses for 24 months:

Clofazimine	50 mg (daily)	50 mg (alternate days)	50 mg (twice weekly)
Dapsone	100 mg	50 mg	25 mg

**II. Paucibacillary cases:**

a) Once monthly supervised doses for 6 months at the clinic :

	<u>15 Yrs+</u>	<u>10-14 Yrs+</u>	<u>6-9 Yrs+</u>	<u>1-5 Yrs</u>
Rifampicin	600 mg	450 mg	300 mg	150 mg
Dapsone	100 mg	50 mg	25 mg	10 mg

b) Daily/Domiciliary Doses:

Dapsone	100 mg	50 mg	25 mg	10mg
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**Note :**

- 1 Treatment should be given to multibacillary cases once a month along with domiciliary daily treatment for 24 month. MDT should be stopped at the end of 24 months and skin smear done once a year.
- 2 The duration of treatment may vary from 6 months to 12 months for paucibacillary cases. However patients who develop new lesions or have extension to existing lesions after the treatment period, should be considered for multibacillary MDT regimen.
- 3 Clofazimine may give rise to dark red colouration to skin, mucous membranes, urine and sweat these symptoms are not serious and complete course of drug should be given. The symptoms would disappear after the drug is stopped.
- 4 Urine may appear red for a day following Rifampicin.
- 5 Treatment should be stopped only after the disease activity is arrested and smear negativity achieved.
- 6 General Practitioners can diagnose and continue treatment of leprosy patients in their clinics.
- 7 Our staff will be visiting the houses in rural and urban areas for examination and case detection. Please help them in their work.

For further information, contact:

FOR FURTHER INFORMATION CONTACT

**Damien Social Welfare Centre**  
Post Box No.-47, Gandhi Bhawan  
Polytechnic Road, Dhanbad.



# SUCCESS STORIES OF DAMIEN SOCIAL WELFARE CENTRE



1. Case load in 1970 was 37,190; in 1993, it has come down to 2,124.
2. No. of patients cured up to today: 25,592
3. The prevalence rate in 1970 was 17.2 per 1000; and today it is 10.6 per 1000.
4. The deformity rate was 4.1% in 1970 and now it is 1.9%.
5. DSWC medically rehabilitated 7,237 patients.
6. At Nirmala in 25 years:

No. of Admissions	89, 218
Physiotherapy *	18,567
Smear tests	1,44,836

7. Rehabilitation and welfare services from 1964 to 1993:

a) 1) Houses built in colonies	610
2) Under Indira Awas Scheme	30
b) Houses repaired	146
c) Wells dug	16
d) Drinking water facilities	14
e) Fish ponds	2
f) Loans for self-help and income generation	1,250
g) Jobs for ex-patients and their wards	43
h) Rickshaws for patients and their dependents	20
i) MCH Care	3,350
j) Immunization:	
i) Polio	2,051
ii) DPT	2,027
iii) BCG	613
iv) Measles	557
v) Tetanus Toxide	1,321

- |                                      |        |
|--------------------------------------|--------|
| *i) Below Knee plaster of Paris      | 1,935  |
| ii) Other Splints                    | 3,601  |
| iii) MCR Chappals and shoes supplied | 20,042 |

k)	Crutches supplied	205
l)	Artificial limbs supplied	195
8.	Orientation Programme in Leprosy for the Novices of religious congregations (men and women) from 1984:	198
9.	Orientation Programmes in Leprosy from 1989 for the target groups: BVHA members, BCCL doctors and Para - Medical Staff, Bihar Govt. doctors, trainee-nurses, railway doctors, doctors from other private and public Industrial establishments and Bihar Govt. teachers.	180
10.	Human Resources Development programmes from 1988 for DSWC Officers, Supervisory staff, Drivers, Ward-Assistants, Dressers, Mechanical and Technical staff and the teaching staff	210
11.	Matric education given to the children of leprosy patients and orphans	249
12.	Job-oriented vocational training given to the wards of leprosy patients in the hostels	314

Fr. VIJAY A. BHAT

#### NERVE DAMAGE AND MULTIDRUG THERAPY

##### POINTS

- new nerve damage can occur before, during and after MDT.
- there is never a time of no risk of nerve damage.
- the greatest risk of reversal reaction is during the first year of MDT.
- the key to preventing nerve damage is :
  - a. early detection and treatment of leprosy with MDT
  - b. early detection and treatment of new nerve damage

**Courtesy : Partners - Magazine**  
**for paramedical workers No., 26**



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Leprosy work is not merely medical relief, it is transforming frustration in life into the joy of dedication, personal ambition into selfless service.

Why should there be a stigma about leprosy any more than about any other disease.

— Mahatma Gandhi



**DAMIEN SOCIAL WELFARE CENTRE.**

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