

# **ATTEMPTS AT INTEGRATING THE TRAINING IN LEPROSY AND TUBERCULOSIS: EXPERIENCE, PROBLEMS AND PROSPECTS**

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## **EXPERIENCE**

### **First Course**

After a year of preparation in cooperation with the International Union Against Tuberculosis (I.U.A.T.) the Ministry of Health of Ethiopia and staff of the medical Faculty of Addis Ababa University, the first course on Tuberculosis and tuberculosis Control was conducted at ALERT immediately after the Leprosy Doctors' Course of April 1983. The arrangement allowed for some of the participants working in combined leprosy /TB Control projects in Tanzania and Kenya to stay on to attend the TBC Course.

Most of the participants, however, were doctors or health officers working in TB Control only and they arrived after the Leprosy Course was over. In this first course ALERT provided facilities as regards lecture rooms, laboratory space, board and lodging of the participants, production of some teaching material and transport to and from the TBC Centre, the TBC hospital and the airport of Addis Ababa.

The I.U.A.T. provided most of the guest lecturers, the necessary funds for the travel and accommodation expenses of the participants and lecturers and most of the teaching material.

The headquarter of the TB Control project in the Ministry of Health made the necessary arrangements for the visits to the TBC Centre, the TBC hospital and to two primary schools in the city for the execution of Tuberculin testing in some 600 children. The director of the TB Control programme lectured in the course and so did two lecturers of the Medical Faculty.

### **Second Course**

The second course was held from 29 October to 15 November, 1984, immediately following the leprosy Octobers' Course of 24 September to 27 October, 1984. The arrangements were similar to those in the first course. The courses were generally considered as having been successful although there was some overload of theory and too little opportunity for practical exercise and evaluation of TB Control work. For the I.U.A.T. the courses must have been very costly undertakings. Undertaking two sequential courses, one on leprosy and the other on tuberculosis would deserve the title "preliminary" as far as attempts at integration of training in both fields are concerned.

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## **PROBLEMS**

1. At present there are few countries in Africa where leprosy and TB control is combined in such a way that the two categories of patients are treated and managed by the same field workers, coached by the same supervisors and headed by one project director. Two of those countries are Tanzania and Kenya. Their combined control programmes are, to a good extent, already supported by national training programmes. Other countries, including Ethiopia, are aiming at the establishment of combined control programmes and those, rather than the former, would seem to be able to provide sufficient number of the target group of health staff for integrated leprosy/tuberculosis courses at ALERT. For ALERT to acquire the necessary experience in conducting

such integrated courses, sufficient number of candidates would have to be available at least once a year.

2. The major problem we have been facing in conducting the TBC courses was the absence of satisfactory opportunities for practical training in control work.

Participation in field work is an essential component of all of ALERT's Leprosy Training Courses. Course participants must have the opportunity to study and practice methods of case detection and case holding and be involved in field management of patients. They should also be engaged in planning, organisation, supervision administration and evaluation of the control activities, experience its constraints and come up with constructive ideas on how to overcome them.

The ALERT Leprosy Control Department offers those facilities for practical training in the Shoa region. The area holds 20,000 patients under the care and supervision of a very well motivated corps of field workers supervisors and doctors.

The leprosy control programme was already in operation for a long time in Shoa when ALERT was established in 1966. The practical field training could therefore be grafted from the beginning upon an already existing structure.

Practical training in Tuberculosis control would similarly require the presence of a functioning Tuberculosis Control Programme suitable in connection with Leprosy Control Training.

The country is presently embarking upon the building of such a Tuberculosis Control Programme. ALERT has been glad to lend its support by offering three places in each of the TBC courses to Ethiopian staff engaged or to be engaged in TB control. At the end of the course, I would suggest that those staff should be given the opportunity to participate for a while in a functioning Tuberculosis Control Programme in a country like Tanzania.

## **PROSPECTS**

The prospects depend very much upon developments as regards solutions for the problems mentioned above. Other factors to be considered for the future concern the planning of programmes of integrated courses ) the availability of qualified teaching staff; and c) the coverage of the costs.

### **Planning of programmes of integrated courses**

Leprosy and tuberculosis have in some aspects much in common but are in other aspects widely different. To mention a few of the latter:

The diagnosis of both diseases depends upon different criteria. complications of the disease play a much greater roll' in leprosy than in tuberculosis. Their management is rightly given major attention in the leprosy courses. The differences will call for a strict separation of the training as far as the clinical aspects of the diseases are concerned, On the other hand, much could be gained from bringing the training in epidemiology, immunology, bacteriology and laboratory technique together. That same applies to the theoretical and practical training in the operational aspect of leprosy and tuberculosis control, At this moment it is not possible to determine this optimal duration of integrated training courses. experience would have to be gained.

### **The availability of qualified teaching staff**

The previous TBC courses and the one of this year Wife mainly collected guest lecturers from all that world brought in by the A.T, Tile attraction of experts from outside has many practical disadvantage and is extremely costly. It is acceptable as a temporary solution.

In the future, when ALERT starts offering regular integrated leprosy/TB control courses, a couple of TBC experts may have to be attached to the institution. At the same time effort should be made to involve TBC specialists from Ethiopia and from senior staff of other African countries with experience in combined leprosy and tuberculosis control. Close cooperation with the I. U .A. T .in this matter is essential.

Coverage of the costs Part of the problem here is with the remuneration and other costs of the training staff mentioned above while the other part is with the sponsorships for the students attending the integrated courses.

The solution would have to come from the leprosy and the tuberculosis associations in the world , the governments of the countries sending staff to ALERT for training and the WHO. Consultations with these sponsors should take place at an early stage in the preparations.

## **NEW DEVELOPMENTS IN ALERT LEPROSY CONTROL PROGRAMME AND THE ISSUES OF INTEGRATION**

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### **ABSTRACT**

*Introduction of Multidrug Therapy (MDT), as recommended by the WHO in 1982, started in Shoa Administrative Region in the beginning of 1983. From the results of introduction of the new regimens in two districts in the north-eastern part of the region, it can be concluded that implementation of MDT for paucibacillary patients has proven to be successful and feasible. Implementation of MDT in Addis Ababa and two surrounding districts, which started in March 1984, gives so far very promising results. Essential requirements for successful implementation of MDT are discussed. Reasons are given for a continuously high workload, at least during the first years after the majority of the patients have been released from chemotherapy. Integration of leprosy control with the general medical services should definitely be aimed at; however, integration should be carefully planned and timed. Implementation of MDT requires reorganization and upgrading of virtually all aspects of leprosy control. This asks for specialization as regard planning, organization and evaluation. Another aspect of integration is the combination of tuberculosis and leprosy. The leprosy control services could strengthen the tuberculosis services at the time laboratory services have been established and the initial phase of intensive treatment has been secured.*

### **NEW DEVELOPMENTS**

#### **Introduction**

The ALERT Leprosy Control Department is responsible for the leprosy control activities in Shoa administrative region. The region has an estimated population of seven million. In July 1983 about 20,000 leprosy patients were on treatment in the region in 294 centres. About 60% of these centres are attached to the general medical services and 40% are leprosy clinics. Almost all clinics are conducted by special leprosy staff.

#### **New developments in the ALERT Leprosy Control Programme**

A recent development in the ALERT Leprosy Control Programme has been the introduction of Multidrug Therapy (MDT) as recommended by a Study Group of the World Health Organization (1).

MDT was first introduced in the north eastern part of the region: in Tegulet & Bulga and Yifat & Timuga districts, also known as the Debre Berhan area (Fig. 1). All 65 clinics which exist in the area were included in the programme.

*First- results of implementation of MDT:* During the first six months of implementation of MDT 1,684 paucibacillary patients were put on MDT. A cohort analysis on the completion of the treatment shows that out of these 1,684 patients 1,501 (89.1%) completed their course of MDT (Table 1). An analysis of the proportion of the paucibacillary patients in the 65 clinics who completed their course of

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**Fig. 1 MDT Areas in Shewa Administrative Region  
(Indicated in Straight Vertical Lines)**

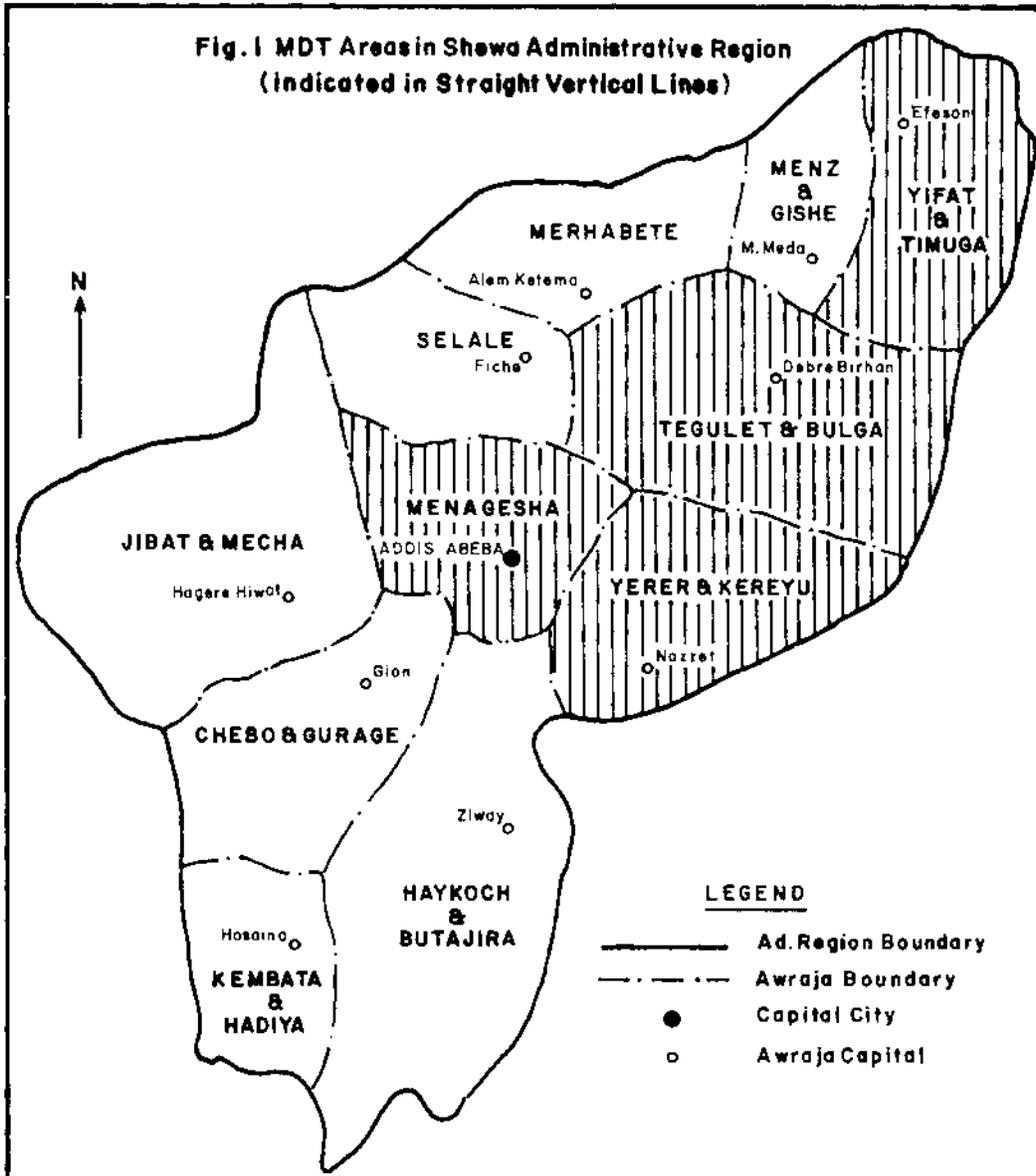


Table 1. Cohort analysis on completion of treatment of paucibacillary patients

	Tegulet & Bulga		Yifat & Timuga		Total	
	Nr. of Pat's	%	Nr. of Pat's	%	Nr. of Pat's	%
Pat's who started MDT	814	100	870	100	1684	100
Pat's who completed MDT	733	90.0	768	88.3	1501	89.1
Pat's whose MDT was discontinued (irregularity of attendance)	64	7.9	93	10.7	157	9.3
Pat's who died	7	0.9	5	0.6	12	0.7
Pat.' s transferred out	10	1.2	4	0.4	14	0.8

(Under first results of implementation of MDT)

Table 2. Percentage of patients who completed treatment in 65 clinics

No. of Clinics	% of Patients
13 clinics	100
20 clinics	91- 99
21 clinics	81- 90
10 clinics	71- 80
1 clinic	61- 70

(Under first results of implementation of MDT)

MDT shows that in 33 clinics between 91 and 100% of the patients completed their course of treatment. In only one clinic, less than 70% of the patients completed their MDT (table 2). It can therefore be concluded that implementation of MDT for paucibacillary patients has proven to be successful and feasible in the area. As the treatment of the multibacillary patients has to continue for a period of at least two years, no multibacillary patients so far completed their course of MDT. These patients are clinically and bacteriologically examined every year. The majority of these patients will be released during the first six months of 1985.

In July 1984 1,350 multibacillary patients were on MDT in the area. Also in July 1984, a small group of patients still received dapsone monotherapy. The main reason why they were not put on MDT is that they were not able to attend the clinics every month for the supervised treatment.

In the next few years, about 300-350 new patients would be expected in the area. of these about 500/0 would be paucibacillary and 50% multibacillary patients: This would mean a workload, on the average, about 10 patients on MDT in each clinic.

*Expansion of the MDT programme during 1984:* In March 1984 implementation of the MDT programme started in Addis Ababa, Menagesha rural and Yerer & Kereyu districts (Fig. 1). In those districts, implementation of the procedures described in the 'Manual for implementation of multidrug therapy in Ethiopia (2) got started including the testing of their operational feasibility.

The manual was prepared in September 1983 by the senior staff of the National Leprosy Control Project in cooperation with a short-term WHO consultant and senior staff of the ALERT Leprosy Control Department. The programme in that Addis Ababa area includes 47 centres. In this area a release from treatment programme of patients who were considered as having received sufficient chemotherapy and need not be given MOT was carried out prior to the introduction of MDT .

About 2,000 patients who represent 40% of the patients who were on treatment in the area were released from monotherapy.

Since March 1984, about 1,500 patients of which 75% are multibacillary and 25% paucibacillary have started MDT, The first 100 PB patients have already been released from MDT. The attendance of the patients in all clinics has so far been above 90%. Compliance studies by way of urine testing on the presence of dapsone give between 83 and 92.5% positivity during the different rounds of supervised treatment.

This is a remarkable increase as compared with previous compliance studies which were carried out at ALERT and which gave positive urine results in only about 60% of the patients who attended the clinics for their treatment.

Future expansion of the multidrug therapy programme: In the districts where the patients still receive dapsone monotherapy, a programme of reorganization of the leprosy control activities started in November 1983.

This programme includes:

- systematic examination of all the patients, including skin smear examinations,
- (re)classification of the patients,
- recording of findings,
- release from treatment of patients who are considered having received sufficient chemotherapy, and
- the introduction of a recording and reporting system which allows for operational and epidemiological evaluation of the leprosy control activities.

At the end of 1985, the MDT programme will be expanded to the two southern districts of Shoa region, Kembata & Hadiya and Haykoch & Butajira districts.

## **CONCLUSIONS AND DISCUSSION**

In conclusion it can be said that the introduction of the MDT programme in the two areas has so far been successful. During the first months of implementation of the programme, we experienced some problems in the Debre Berhan area which were mainly due to the fact that at that time, clear guidelines for the implementation of the programme had not yet been formulated. We have realised that reorganisation and upgrading of virtually all aspects of a leprosy control programme are essential in order to guarantee a proper implementation of the programme. We also learned that the preparation of detailed guidelines as regards the many aspects of the programme are vital in order to guarantee the smooth running of the programme. We are of the opinion that conducting regular workshops with the staff involved in the programme should be part and parcel of the programme. Workshops with our staff are conducted at intervals of about six months. During each workshop, the following programme implementation phase is discussed in detail:

Although the number of leprosy patients who will be on anti leprosy treatment will have been reduced drastically within a few years time, the total workload will continue to be high for quite some years, for the following reasons:

1. A systematic and regular follow-up of the patients after their release from treatment should be carried out. This is necessary in order to determine the relapse rate after MDT. This is of extreme importance, in as far as little is known about the efficacy of the regimens so far.
2. Care for patients with disabilities due to the disease should continue to be given. About one-third of our patients are, to a lesser or a greater extent disabled. These patients will continue to need care.
3. Another aspect which should not be forgotten is that our method of case detection has almost exclusively been passive. About 15% of the patients who have been diagnosed during the last year had already rather severe disabilities at the time of diagnosis. This indicates a delay in detection of patients. The case detection rate among children is high in some parts of Shoa region, which indicates continuous transmission of the disease. An active case detection approach may reveal quite a number of new patients. If they are diagnosed early during the course of the disease the occurrence of severe disabilities can be prevented in many of them.

Furthermore, a more active case detection approach will ultimately have its effects on reducing the transmission of the disease. In some parts of Shoa where the patients are not able to attend the clinic every month due to accessibility problems, the MDT regimens as recommended by WHO cannot be implemented. Supervised treatment at less frequent intervals may be the only practical solution for such patients.

## **THE ISSUES OF INTEGRATION**

### **The need for integration and its practical constraints**

At present general medical staff carry out leprosy control activities in only a few clinics in Shoa region while leprosy is diagnosed and treated in the general medical centres, in general it is also done by special leprosy staff. In addition there are 126 leprosy clinics in remote areas where a general medical service has not begun yet.

Leprosy control activities need to be carried out for a long period, at least for some decades. In the long run, this epidemiological requirement cannot be achieved with a specialized service only.

Integration of the leprosy control services with the general medical services, with the objective of making the general medical staff responsible for diagnosis and treatment of the patients should definitely be aimed at. However integration of the leprosy services with the general medical services should be to the advantage of the patients. Integration should not have the intention to stop providing services to those patients who live in remote area where, as yet, a general medical service does not exist. If the leprosy clinics in the areas should be closed and patients have to cover longer distances to reach a clinic, this will certainly not be to their advantage.

#### *Multidrug Therapy: A Specialized Field*

The World Health Organisation (3) and other international organisations stress that specialized services should be restricted to areas where specialization is essential on technical grounds.

From our experience we have learnt that introduction of MDT, particularly during its initial phase, is in fact a specialized field. Specialization in implementation of MDT refers to planning, organisation and evaluation of the different aspects of the programme which require managerial skills. Badly-applied MDT programmes in which the regularity of the drug-intake cannot be guaranteed may result in an unmanageable situation in the future.

Aspects of leprosy control programmes which often need considerable improvement before an MDT programme can be introduced are (4):

1. the standard of diagnosis and classification of patients,
  2. the laboratory services,
  3. the system of drug distribution and the delivery of the drugs to the patients,
  4. the compliance of the patients,
  5. health education to the patients,
  6. the monitoring of clinical and bacteriological improvement of the patients,
  7. the supervision of clinics in frequency and quality,
  8. the accuracy and reliability of recording and reporting, and
  9. the evaluation of the programme.
- Reorganisation and upgrading of the leprosy services are big undertakings, especially in areas where there are many patients. To allocate these responsibilities to the general medical staff, for whom leprosy control work is only one of the many tasks, will not be very realistic if one aims at implementation of the MDT programme on a large scale, as soon as possible and at a satisfactory level.

But at the time the programme has been established and the backlog of old patients has been properly treated and are not in need of chemotherapy any more, integration of the leprosy services with the general medical services should be given a high priority. However, as long as leprosy appears to be a public health problem, managerial and supervisory staff at national, regional and district level will continue to be needed in an integrated programme.

#### **COMBINATION OF LEPROSY AND TUBERCULOSIS CONTROL**

Another aspect of integration is the combination of leprosy and tuberculosis control activities. At present two aspects in the control of tuberculosis in Ethiopia need serious consideration. These are: 1) the laboratory services -both in quality and quantity as regards the examination of sputum by direct microscopy, and 2) the first two months of treatment, during which the patients should receive daily streptomycin injections beside thiacetazone and isoniazide.

With the present structure of the leprosy control services in Shoa region, the responsibility for the treatment of tuberculosis patients after the initial period of intensive treatment could certainly be secured.

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