REGIONAL MEETING ON LEPROSY
MOGADISHU, 25 - 23 February 1980

EM/MTG. LEP/14
24 February 1980

TRAINING OF PERSONNEL IN CHARGE ON LEPROSY CONTROL IN THE FIELD

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The personnel employed in the leprosy control includes doctors and two types of field nurses, the supervisors and the treatment visitors. It is not the purpose of this note to deal with the training of doctors who should be very familiar with all aspects of the disease and should be familiar with dermatology in general.

TRAINING AND FUNCTIONS OF THE NURSE SUPERVISOR

The role of the nurse supervisor who is in charge of the detection of new cases of supervision of the treatment and of the follow-up of patients and contacts is very important. Such supervisors are expected to represent the doctor who has no possibility to supervise all the leprosy patients in his area, therefore should be selected on the basis of their technical value, their morality and their ability. In the African countries of French language the nurse supervisors who have completed at least two years of service in Endemic Disease Control (Service des Grandes Endemies) Marchoux are subject to a period of inservice training at the "Institute Marchoux" of Bamako or at the Bamako "Institute de Leprologie applique" of Dakar or at "L'Ecole des Grandes Endemies" of the OCEAC in Yaounde, Cameroon. Their services include technical and administrative subjects. From the technical point of view they follow a course on leprosy theoretical and practical (Laboratory examination of patients). Such courses include collection staining and reading of slides, the allergy in leprosy and practical demonstration of the lepromine reaction of Mitsuda, classification of leprosy cases in the field, clinical aspects of leprosy, cutaneous lesion in indetermined leprosy, polar tuberculoid polar lepromatous and interpolar forms. The leprose neuritis, the bone lesions and the planter ulcers, the nasal and laryngeal lesions, occular lesion, aspects of reactions. Techniques of diagnosis such as hystamine and pilocarpine, differential diagnosis, the specific physiotherapy and health education. From the point of view of the administrative training one specific point of importance is the accounting of the leprosy patients. It is in fact quite different to treat patients in a hospital where they are available for some weeks and to regularly follow-up in the course of many years a large number of leprosy patients to dispursed in the whole area of the administrative area. It is therefore necessary to have an exact accounting of all the leprosy cases who have been detected in the sector as to be always aware of the placewhere they are, and of their condition since the last visit. It is therefore necessary to establish a system of individual cards for each patient and to keep it up-

to-date at all times. The o ective of the leprosy control is to treat every patient and to render him non infec ous. Irrespective of the technical ability of the doctor and of the nurses, such objective cannot be obtained unless a card system is correctly established and is maintained continuously up-to-dated without gaps.

Elements of the leprosy card system

a) The individual card or detection card

b) The general register

c) The village index card

When these three elements are kept up-to-date in a short while it is possible to know the geographycal situation and the clinical condition of any leprosy patients recorded in the card system. The nurse supervisor should therefore know very well the position of each case in the card system.

Registration of new cases

These are the new cases detected, as well as the imigrants who have moved from another sector, also in this category fall old patients who had earlier disappeared and therefore they had been taken off from the register and of patients who had recovered but had relapse.

Cancellation of patients

This includes: those who have recovered (indetermined lepromine positives and polar tuberculoid), those who have died, those who have moved to another sector, those who have disappeared since more than two years and finally those who have been recognized not to be affected by leprosy.

In addition of the three elements of the card system, there is a fourth element which is the treatment register which is being used by the treatment nurse, this is very important because it allows a checking on the work of the treatment nurse in respect of dosages, on the regularity of the patients and on the precision on the monthly reports of the work done. Finally it is necessary to provide each patient with a treatment card.

Once the nurse supervisor has completed this in-service training period and learned about the technical and administrative aspects of his work he will be assigned to a sector. His functions will be the following:

a) Case detection: This consists in taking charge of the new cases encountered during his periodic visits and of those patients who have contacted him spontaneously. The nurse supervisor is expected to make a diagnosis of all the cases of leprosy without missing anyone, but also to avoid to label leprous those who are not. The supervisor will also establish in the field the individual card and will register the patient in the village index card, the treatment book as well as to issue the case card.

b) Clinical control of the old cases: The cases under treatment must be checked by the supervisor at least once a year, this check consists in a comparison between his present conditions and the conditions at the beginning of the treatment. This implies a judgement about the evolution of the disease such as improvement or stationary or deteriorated, or inactivated or under observation without treatment (EOST in French, UOWT in English) or recovered and cancelled from the registers, or UOWT taken back under treatment.

All such indications will be recorded in the individual card and duly transferred into the general register.

c) Bacteriological control of lepromatous and borderline area: Every year the supervisor will undertake a bacteriological control of the bacilliferous through collection in the nasal mucosa and dermal fluids. Such collections which should be immediately heat fixed will be stained and examined on return to the centre, the results will be recorded in the individual card. This card allows the follow-up of the efficacy of the treatment.

d) Clinical control of contacts of bacilliferous cases and then profilactic treatment:

Every year a visit of the contacts of the bacilliferous cases will aim at the detection of new cases in practice this finding should become more and more exceptional if the profilactic treatment is well implemented. The recommended dosage is 5mg of DDS/kilo./week to be continued for at least 5 years since last contact with a bacilliferous case untreated.

e) Follow-up of treatment: Treatment should be continous and regular if results had to be obtained. Two main obstacles are found in practice, firstly the lack of interest of the patient, and secondly the lack of interest of the treatment visitor.

The nurse supervisor who should in advance know the programme and itineraryof the treatment visitor is expected to carry out surprise visits with the objective of verifying the treatment book and the dosages administered, the regularity of treatment, the appropriate technique of the injection, particularly asepsis, the administration in the presence of the treatment visitor of DDS, the first signs of possible ENL.

f) He is also expected to replanish the material drugs and spare parts for the cycle to the treatment visitor.

g) Supervisory tours: The programme field visits of the supervisor is prepared in advanced by the medical director and includes the following steps of action:

1. Preparation of thetour, this implies advanced notification to the local authorities, verification of transport, equipments and drugs.
2. Implementation of the tour which implies clinical bacteriological tests.
3. The report of the tour.
4. The updating of the card system.

h) Preparation of annual and monthly reports

i) Treatment of the patient at the dispensory of the centre

TRAINING AND FUNCTIONS OF THE TREATMENT VISITOR

The treatment visitor can possibly be a youngman physically fit in view of the need to continuous travel who could be selected among the local population. His training will be carried out by the doctor in charge of the sector for the necessary period of time required by his functions (this is practically the primary health worker).

The duties of the treatment visitor are the following:

- specific treatment of the patients (administration of tablets and injections as prescribed by the physician or by the supervisor) and other care such as bandaging, distributions of vitamines, etc.

- Profilactic treatment of contacts of bacilliferous cases (5mg DDS/kilo/week/ 5 years).
- Maintenance of the treatment book
- Follow-up of the patients in the village index card taking record of deaths, absenties, emigrated, imigrants, new cases and irregularly drug takers. This index card should be presented to the nurse supervisor when required.
- Issue of a temporary registration card and initiation of DDS treatment in case of discovery of a new case though it is imperative that such new case should at least be examined and confirmed by the nurse supervisor before being recorded in the general register.
- He should also take note of the cases requiring surgical care (claw hand, foot drop, planter ulcers) and refer them to the nurse supervisor, the sector doctor and the surgeon.
- Implement health education in particular how to avoid burns, perforating ulcers, etc.
- Establish close collaboration with the village authorities in his area.
- Prepare a monthly report of his activities to be presented to the nurse supervisor.

The above description corresponds the training and duties utilized in Senegal. Nurse supervisor in general will look after about 1500 patients.

The following is an example from the demonstration area of Sokone in Senegal: One nurse supervisor assisted by four treatment visitors having in charge of 1425 cases in 1973 has implemented case detection, control of patients treatment etc. as indicated above. At the end of a four year period in 1977, a total of 1084 out of 1425 cases or 76% have been cancelled from the registers after vigourous annual clinical controls.

The lepromatous cases in the above group in 1973 were 194 but became 204 in 1977 of this 75% had become negative both in nasal smears as well as dermal fluid. The remaining cases had a morphological index practically of zero and were therefore no more infectious, despite we have adminsitered to each one of them single dose of 1500 mg of rifampicin.

The above results can be obtained anywhere in Africa by following this method and gives good hope for an effective containment of leprosy.