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MANAGEMENT OF LEPROSY CONTROL PROGRAMMES

by

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STRATEGY OF LEPROSY CONTROL AFTER IMPLEMENTATION OF COMBINED CHEMOTHERAPY

1 JUSTIFICATION

A new era of leprosy control was declared by the recommendation of the World Health Organization (WHO) Study Group on Chemotherapy of Leprosy, held in Geneva from 12 to 16 October 1981. The introduction of multidrug therapy was urgently recommended due to three main factors namely:

1. The rapidly-developing secondary dapsone resistance
2. Development of primary dapsone resistance
3. Appearance of persisters

These factors lead to failure of control programmes depending on Dapsone monotherapy during the last 30 years. The implementation of the new strategy needs re-training of personnel, promotion of supervision, community participation, availability of financial resources and careful attendance to operational details.

2. MAGNITUDE OF THE PROBLEM

2.1 Secondary Dapsone Resistance

Prevalence of secondary dapsone resistance is steadily increasing. It was reported from 25 countries and varied from 20 to 190 per thousand(1000).

2.2 Primary Dapsone Resistance

Is also on the increase. It is possibly occurring in Tuberculoid cases not showing the expected response to treatment with dapsone.

2.3 Persistence of M.Leprae

Few numbers of drug-sensitive M.Leprae persisting in spite of adequate

monotherapy are the cause of relapse in some cases of Lepromatous Leprosy and needed treatment for many years after clinical cure. Evidence shows that multi-drug therapy is capable of preventing relapses due to persisters.

3 COMBINED CHEMOTHERAPY

3.1 Recommended regimen for multibacillary cases:

- Rifampicine 600 mg once monthly under supervision
- Clofazimine 300 mg once monthly under supervision + 50 mg daily
- Dapsone 100 mg daily self-administered

This regimen is continued for two years or until bacteriological negativity is attained. Ethionamide or Prothionamide 250-300 milligrams is used when clofazimine discoloration is not accepted

Advantages of this short-term therapy are:

a) Smaller quantities of drugs required

b) Greater convenience to the patient

c) Better chances for patient compliance and cooperation

d) Smaller risk of chronic drug toxicity

e) Cost effective advantages of short term regimen as compared with life time dapsone monotherapy.

3.2 Recommended regimen for Paucibacillary Leprosy i.e. non infective

- Rifampicine 600 mg once monthly under supervision
- Dapsone 100 mg daily self-administered
- Duration six months

The advantages of this short-term regimen in paucibacillary cases are nearly the same as in multibacillary cases, also reducing patients' load on the workers giving them more time to concentrate on infectious cases. It also reduces the theoretical danger of developing Rifampicine resistant strains of M.Leprae in cases wrongly diagnosed as paucibacillary. If the regimen is interrupted it should be started again where it was discontinued to complete the course.

4. INTRODUCTION OF MULTI-DRUG REGIMEN IN PROGRAMMES FOR LEPROSY CONTROL

Programmes for Leprosy Control

Leprosy remains an important public health problem in all the countries represented here. The new regimen needs the reconsideration of all the activities implied in Leprosy control programmes. The increased cost resulting from the use of more expensive drugs increases the responsibility of the national and international agencies (international, multi-lateral, bilateral and voluntary) to mobilize the financial support required.

4.1 Case detection

The method used will depend on prevalence rate, population density and whether the area is rural or urban.

4.2 Examination of patients

4.2.1 Clinical examination·

Careful and systematic examination with classification in the spectrum . Note any contraindication for drugs used, such as Tuberculosis, Malnutrition, Allergic reactions etc ....

4.2.2 Bacteriological examination of skin smears is of extreme importance in deciding the regimen used and also the duration of therapy. Laboratory facilities must be strengthened. suitable equipment, training of staff and continuous supervision

4 2.3 Other laboratory investigations may be needed to detect certain toxic effects of drugs on the internal organs e.g. liver, kidneys, haemopoetic system, etc..... Thus public health laboratories belonging to the regional health service must be made available for such investigations.

4.2.4 Periodic supervision in multibacillary cases. During monthly delivery of the drugs, the patient should be examined for appearance of:

1. toxic or allergic drug reaction
2. Lepra-reactions type one or type two
3. improvement in the clinical manifestations as judged by change in skin lesion, change in nerve thickness and tenderness, improvement or deterioration of any disability or paralytic manifestation present
4. Smear examination must be repeated every six months for a minimum of two years or until smear negativity is reached

In paucibacillary patients, treatment is terminated after the six months' course and the patient is told that complete resolution of lesions will occur in time and that he should come back immediately if new lesions appear.

4.2.5 Surveillance: In multibacillary cases patients should be clinically and bacteriologically examined every 12 months for a period of five years after cessation of treatment.

4.3 Treatment Delivery

With the introduction of multi-drug therapy, regular treatment delivery is of extreme importance. The monthly doses of Rifampicin and Lamprene

should be given by the leprosy worker and ingested in his presence. The delivery system should be convenient to the patients. It should be flexible to meet certain situations making use of community health volunteers, school teachers, village headmen ... etc., after proper training. The following factors are of importance in improving regularity of treatment:

- Proper siting of clinics
- Adequate and efficient defaulter retrieval action
- Facilities for diagnosing and treating complications and reactions
- Facilities for temporary hospitalization when needed
- Regular follow-up of patients.

4.4 Priorities

For introduction of multi-drug treatment: Whenever financial conditions and manpower permit, all registered multibacillary and paucibacillary cases should be put on multi-drug regimens. When this is not possible, patients requiring multidrug regiments can be classified in the following categories in order of priority:

- newly diagnosed multibacillary cases
- suspected multibacillary cases as dapsone-resistant
- multibacillary cases still active after five years of treatment
- multibacillary cases treated for less than five years
- all newly-diagnosed paucibacillary cases
- paucibacillary cases that relapse
- paucibacillary cases on dapsone for less than two years

4 5 Case Holding

Interruption of treatment, irregularity and premature cessation are major problems in leprosy chemotherapy. Patients' compliance is even more important in multi-drug strategy. Non-compliance may be due to ignorance, absence of subjective symptoms, slow clinical improvement, side effects and social constraints. Personal contact is needed to bring a defaulting multibacillary patient back to treatment.

4.6 Health Education

At all levels health education remains the most important factor for the success of the new strategy. Health education is needed to promote social and personal awareness regarding the disease as well as self-confidence. At the home level, family members can play an active role in encouraging the patient to take his treatment regularly. People, regardless of their level of education, are capable of making suitable decisions concerning their own health when properly motivated.

4.7 Drugs

A continuous supply of Rifampicin, Clofazimine, Dapsone and in some instances Prothionamide/Ethionamide is needed. Besides, drugs to treat lepra reactions as well as adverse effects and toxic manifestations of therapy must be made available. WHO may play an important role in stimulating and supporting governments of our area to import, or produce locally the needed drugs.

5 MANPOWER DEVELOPMENT

5.1 Programme managers and health administrators should be informed of the new strategy, of the operational difficulties for its implementation and of the methods to overcome them.

5.2 Training : Most of the countries in the Region suffer from acute shortage of well-trained personnel for leprosy control programmes. Training should prepare each group of personnel to perform clearly defined functions.

5.3 Continuing education: To maintain motivation among health workers and improve their competence. Manuals in simple language will also promote competence.

5.4 Financial support: This is needed to promote technical cooperation among developing countries (TCDC), and to provide the training institutions with the necessary educational material as well as transport facilities

6. EVALUATION

Specific information to be collected for evaluation should include the following indicators:

- Number of patients detected by the clinics
- Number of patients treated
- Number of patients who develop side effects of drug
- Number of patients needing hospitalization

Analysis of these data will indicate to what extent the programme has achieved its targets and if corrective action is needed.

7 ROLE OF WHO AND OF INTERNATIONAL AND VOLUNTARY ORGANIZATIONS

Due to the urgency of the situation, funds and expertise must be mobilized by WHO and other Agencies to help in implementing the new strategy in endemic countries This assistance may cover the following areas

1. Promotion and dissemination of information
2. Supply of drugs
3. Training of personnel and development of educational tools
4. Provision of consultants to Member countries
5. Evaluation of programmes
6. Operational research to improve programme performance