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DIARRHOEAL DISEASE CONTROL, INCLUDING CHOLERA

Report by the Regional Director

1. INTRODUCTION

Resolution WPR/RC29.R15, adopted by the Regional Committee at its twenty-ninth session, requested the Regional Director:

"(1) to solicit from Member States contributions, in funds or in kind, towards the development of the programme of diarrhoeal diseases in developing countries of the Region;

(2) to cooperate with UNICEF and other international and national agencies in obtaining support for action against diarrhoeal diseases;

(3) to promote technical cooperation with and among Member States, in particular in the training of health workers at different levels and in the exchange of experience gained by those Member States;

(4) to promote research activities aimed at the development and evaluation of various systems of diarrhoeal disease control in rural and sub-urban populations at high risk."

Implementation of a diarrhoeal disease programme makes it necessary to activate the basic components of a public health system, however advanced it may be. It follows that effective action in the programme must necessarily develop and improve the quality of the health service delivering it and also the quality of life of the community, without whose cooperation little improvement is possible.

Initially, the programme will focus attention on the lethal effects of a group of enteric agents. The approach taken thus differs, at this stage, from the specific etiological approach.

Cholera is a member of this group of diarrhoeal agents. It is no more potent than other individual members in the way it affects an infant population, though it is a more potent epidemic agent in adults.

Since the work carried out at the International Centre for Diarrhoeal Diseases Research at Dacca has demonstrated the efficacy of oral rehydration in treating cholera and since cholera vaccine does not influence the spread of the disease, cholera vaccination is no longer considered necessary as a quarantine measure. However, cholera surveillance remains important in all countries or areas and measures to protect food supplies, and water supplies in particular, are all-important for the prevention of diarrhoeal disease, including cholera.

Unlike many other diseases, because of the number of different agents which can cause diarrhoeal disease, infants may suffer several successive dehydrating attacks which compound the severity if rehydration is not effected promptly on each occasion.

2. PROGRAMME DEVELOPMENT

A high priority is being accorded to programme development for diarrhoeal diseases control (DDC) in the Western Pacific Region, pursuant to resolution WPR/RC29.R15 and through the intercountry diarrhoeal diseases control project.

The medium to long-term objective of the programme is to reduce the incidence of diarrhoeal diseases. Associated with such a reduction are considerable sequential benefits.

The short-term objective is to reduce mortality from diarrhoeal diseases and to reduce morbidity due to diarrhoeal disease with its associated malnutrition.

Initially the main weapons will be oral rehydration and related nutritional assistance as an element in primary health care. This will necessitate supplies of oral rehydration salts, nutritional advice and, at times, suitable supplementary diets.

While such a project seems simple, its successful outcome hinges on the provision of special training for staff, the activation of the health services to reach infants with diarrhoea, and the institution of recorded epidemiological surveillance. The public must be educated into bringing their children for care, while a long-range programme, involving the promotion of improved child-care practices, the acceptance, utilization and maintenance of a pure water supply and sanitation facilities, must be introduced.

It will be understood that the elaboration of recommendations which follows is intended to invite collaboration by various Member States according to their current requirements.

WHO is ready to cooperate with national health authorities in implementing national DDC programmes.

2.1 Immediate target

The initiation of a 'pilot' DDC programme in one province or region of each country of the Western Pacific Region by December 1980.

A central national operational committee, either advisory to, or within the headquarters of, the national health authority, will be required, to initiate, activate and coordinate the programme activities. It should deal with:

- campaign details (treatment and prevention)
- training of personnel in service
- health education
- documentation and compilation of data
- surveillance, clinical and microbiological
- research (goal-oriented)

2.2 Initial procedure

2.2.1 Formation of the national operational committee for diarrhoeal disease control under the chairmanship of the Director-General of Health Services or his deputy. The committee members should include public health physicians trained and experienced in the management of diarrhoeal diseases, nutrition problems, health services, documentation, health education, epidemiology and research. A public health nurse should also be a member.

Timing: Immediate

2.2.2 Selection of a province or a region with both urban and rural populations as a pilot region to establish the DDC programme. This will be a function of the national operational committee for DDC, with suitable liaison provided.

Note: A pilot scheme is desirable, in fact almost essential, in that resources, funds and trained personnel can be provided more rapidly on a limited scale. It is more economical and effective initially to concentrate efforts in one region instead of risking the ineffectual diffusion of resources over the whole country. It is impractical to provide training for the whole health force at one time. A pilot scheme, once established, can provide training and experience for the staff of future areas, and lend itself to operational research for the purpose of comparing alternative solutions.

2.2.3 Establishment of a training centre

Seminars will be required at senior levels. Curricula should be drawn up for training at all levels, particularly at community and peripheral levels. Emphasis should be placed on case-finding, rehydration techniques, nutrition and maintenance of records.

Timing: Immediate

2.2.4 Appointment of a coordinating and supervising officer for the pilot project to ensure integration of the various disciplines involved and maximum effort in case finding, treatment and documentation.

2.2.5 Appointment, by the national committee, of staff members responsible for instituting each of the following:

(a) Proper maternal and child care practices (including boiling of water for baby feeding and for drinking);
(b) Provision of safe drinking water (community level);
(c) Improvement of food hygiene practices;
(d) Improvement of sanitation facilities;
(e) Health education and training.

Note: In the above fields it might be profitable to propose a succession of limited targets for community achievement. Rewards or awards for target achievement, or at least the formal recording and publication of progressive results, could be considered.

(f) Medical records of mortality and morbidity;
(g) Surveillance, clinical and epidemiological;

Note: Staff members at the periphery must be aware of differentiation between a contact-spread epidemic and a central source outbreak, which could be due to locally contaminated food.

(h) Surveillance, microbiological;

Note: The provision of channels for collection of specimens and delivery to the laboratory, particularly for identification of outbreaks. The specimen receptacles should be standardized and training should include methods of collection, storage and transport.

(i) Evaluation.

Note: Initially at frequent intervals, say every three months, in terms of the newly introduced pilot programme. Changes should be made promptly if indicated.

2.2.6 Synchronization of efforts by the various disciplines is vital and will be the coordinator's main responsibility.

In elaborating programmes to meet local requirements, the national DDC committees and training subcommittees could request cooperation from the WHO intercountry diarrhoeal diseases control project and should refer to the publication Treatment and Prevention of Dehydration in Diarrhoeal Diseases.[1]

2.3 International cooperation

In the promotion of programme development, emphasis has been placed on international cooperation within the Western Pacific Region, including technical cooperation. For example, staff experienced through their pilot programmes could be recruited to serve as consultants and to provide training in other countries.

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[1] World Health Organization. Treatment and Prevention of Dehydration in Diarrhoeal Diseases: a guide for use at the primary level, Geneva, 1976.

Consideration could be given to organizing at least one training course for future instructors from all countries or areas of the Region.

There appear to be possibilities for immediate cooperation in the manufacture of rehydration salts, training, exchange of observers of pilot programmes, and research.

Plans could be made for different methods of delivery of treatment etc. for comparison purposes.

2.4 Source of funds and supplies

It is anticipated that approximately US$650 000 will be required to launch the campaign.

Oral rehydration salts are the initial requirement. One million packets, each to make 1 litre of solution, will be required in 1979. Part of this current requirement is being supplied by UNICEF. Funds have been made available by the Government of the United Kingdom, in addition to contributions to the programme by the Governments of Australia and the Philippines. Other sources are being explored.

It has been proposed that the rehydration salts required in the South Pacific should be produced in Fiji.

3. THE INTERNATIONAL HEALTH REGULATIONS (1969)

The International Health Regulations, adopted by the Twenty-second World Health Assembly in 1969 and amended by the Twenty-sixth World Health Assembly in 1973, omitted the requirement for cholera vaccination as being an ineffective public health measure. Nonetheless some countries still insist on such a vaccination.

It is worth noting however that, in the Western Pacific Region, when an outbreak occurred in the South Pacific in 1978, the disease spread to a country which still requires a valid international certificate of vaccination against cholera.

4. CONCLUSIONS

Death in infants with bowel infections is almost always caused by dehydration, very often aggravated by tropical climatic conditions, which in turn favour the spread of enteric organisms. Oral rehydration, if instituted promptly and effectively, will prevent the death of all but a very small number of those infants.

Nutritional and food hygiene factors contribute to the occurrence and severity of the conditions, and the infection may in turn precipitate malnutrition. Oral rehydration and associated nutritional care provide a most effective and relatively inexpensive cure.

The opportunities for operational research should be exploited. The programme, with its long-term developments, will immeasurably strengthen national health systems generally and yield many consequential improvements in the life and well being of the people.

A pilot programme in a province or region would facilitate the early and successful establishment of this policy.