ARTHRITIS—PLAN FOR ATTACK*

Prepared by the Canadian Arthritis and Rheumatism Society

Ottawa, Ont.

IN preparing this Plan, the Canadian Arthritis and Rheumatism Society has been deeply conscious of the magnitude of the problem which arthritis presents. It has been equally aware that a very great deal can be done, to relieve both the suffering of individuals, and the present drain on the nation's economy. The plan has been prepared as a basis for practical discussion and subsequent action by those associated with the Society, as well as for all doctors and thoughtful citizens interested in the control of rheumatic diseases.

The Society recognizes that a problem so extensive can be solved only through many years of tireless effort, and that all plans must be such that they can be easily modified in the light of newly-achieved knowledge, and of local conditions. At the same time, it reiterates its sincere conviction that much can now be done which will be of immediate value, and which may well provide the base of operations from which these diseases can ultimately be conquered.

It is also recognized that a plan of attack on arthritis can be carried out only through the effective co-operation, interest and participation of many agencies and groups, notably the medical profession, health and hospital authorities, medical schools and the general public. The Plan herein proposed discusses the rôle of such groups in a co-ordinated attack, and describes the Society's own position in relation thereto as but one active part of a greater whole; for, although the Society can be a spark plug, it cannot be the whole engine.

PART I. THE PROBLEM OF RHEUMATIC DISEASES IN CANADA

Rheumatic diseases, which include arthritis, remain one of the most important unsolved problems which disease presents to our community. If all cases were diagnosed in their early stages and promptly submitted to the treatments, which present medical skill can suggest, there would be a prompt and great reduction in the number of lives wrecked by its ravages.

The social and economic importance of these diseases is clearly demonstrable in that an estimated 100,000 Canadians are totally or partially disabled by rheumatic diseases and an estimated 600,000 Canadians[1] are affected in varying degrees. As a result, Canadian workers lose an average of $54,000,000.00 in wages annually.

Attention to rheumatic diseases is becoming widespread, as evidenced by post-war professional and non-professional movements in many countries. At present the arthritides (especially deforming rheumatoid arthritis) present the most serious problem, but the most fruitful results are possible in their control. Owing to the complexity of, and difference between these diseases, there is no such thing as an over-all arthritis cure. With dissemination of present knowledge throughout the whole profession, combined with adequate facilities for diagnosis, treatment and rehabilitation, from 80 to 90% of arthritis victims can remain or be rendered employable, or able to lead near-normal lives, even if not completely cured. This augurs well for future treatment.

PART II. PLAN FOR A CONCERTED ATTACK

"There is no refuge in the excuse that, since medical knowledge of causes and of the most efficacious treatments is incomplete, nothing can be done. In the majority of cases a great deal can be done. Even if there were no hope of gaining further knowledge by research—which, emphatically is *not* the case—yet the national application of present methods of cure and alleviation would lift much of the burden of rheumatic disease from the community."[5]

In developing any program designed to make the best possible treatment available to all victims of rheumatic disease, and in particular, deforming arthritis, four factors must be considered at the outset:

1. No one body, official or otherwise, has a universal authority such as would enable it to chart and organize the provision of needed facilities by its mandate. The development of such facilities can be brought about only through the co-operative action of many organizations, such as the medical profession, hospital authorities, university medical schools, public health departments, the sufferers themselves, and society generally. The prospects for carrying into effect any given program depend almost wholly upon its quality and flexibility, and the degree to

* Abridged from a longer and more general paper.

which it is accepted as correct by those who direct or influence the various organizations concerned.

2. The number of physicians specially trained in the diagnosis and treatment of these diseases is severely limited. Any scheme must, therefore, not only make the most efficient use of the knowledge already available, but also contribute to its extension throughout the medical profession generally.

3. There already exist extensive facilities for both public and private medical care; in view of the large number of people concerned, these facilities must be utilized, adapted, increased and directed to the end that the best possible treatment becomes universally available to the victims of rheumatic disease. It would be impractical to devise a scheme of treatment facilities separate and distinct from that now in existence.

4. Long-term planning is essential. Unless we know the general direction in which we are moving, we cannot take our first steps.

Importance of early diagnosis and prompt treatment. — "The basic approach to chronic disease must be preventive, otherwise the problems created by chronic diseases will grow larger with time and the hope of any substantial decline in their incidence and severity will be postponed for many years."[2] Until the exact causes are known, measures to prevent the onset of arthritis cannot be devised. Present effort must be directed toward the prevention of serious disability.

In the treatment of rheumatic diseases, especially deforming arthritis, the best hope of success rests in the capacity to detect early symptoms and to put into effect the best safeguards against development of serious invalidity. That patients are received too late is the complaint of every physician or surgeon concerned in the treatment of this malady. "Certain American workers have demonstrated the point with almost mathematical precision. Cecil and Adams found that 82% of patients treated in the first six months of the disease either recovered completely or were greatly improved, and that the percentage of favourable results decreased with each year of delay in obtaining treatment. . . ."[3]

Because of the great numbers of sufferers involved, and the consequent impossibility of providing a specialist or special hospital to care for each one, *faith must be reposed in the main body of medicine, i.e., the family doctor,* and this policy is highly desirable for many other reasons. Early diagnoses will be made in direct ratio to his capacity in detecting early signs and symptoms. The assistance of specialists and of specialized institutions should be regarded as reinforcements to be available whenever needed. A full recognition of the important rôle of the general practitioner is implicit in this plan.

While the great majority of sufferers could attain alleviation or cure without significant disruption of their lives, there are many who require long periods of hospitalization. Long-term hospitalization is extremely expensive, and is not generally available, to people of limited or modest means who suffer from chronic illness. Physicians may know that their patients require prolonged rest and extensive treatment in hospital. Yet this knowledge will give them but little comfort, and the patient but little relief if this hospitalization is not available.

Elements of the plan.—The plan herein proposed may be considered under four separate although related headings: (1) Increased facilities for diagnosis and treatment. (2) Professional education. (3) Research. (4) Other provisions.

Increased Facilities for Diagnosis and Treatment

Special treatment centres and local clinics.— The broad range of medical facilities already in existence includes a number of hospitals which are teaching centres for the various university medical schools. On the whole, it is these hospitals which are best supplied with radiological, pathological, biochemical and therapeutic resources which have the greatest facilities for research, and which have at their command leading specialists in all aspects of medicine and surgery related to the diagnosis and treatment of rheumatic diseases. Because they are teaching hospitals, they are the logical foci for the postgraduate and undergraduate education necessary to diffuse throughout the profession the most up-to-date knowledge. A few of these hospitals have developed in varying degree special clinics, services or departments for the treatment of rheumatic disease.

For these reasons, it seems best that special treatment centres for rheumatic diseases be established at teaching hospitals. This is fundamental to the plan herein proposed. In those areas where teaching hospitals do not

exist, special treatment centres should be established at the leading hospitals.

Local clinics with facilities less extensive than those of a special treatment centre should be established, probably giving out-patient service only, at local general hospitals on a part-time basis. These local clinics should be associated with the special treatment centre at the nearest teaching hospital in the same informal way that local and teaching hospitals are associated in the special treatment of other diseases.

Classification of patients according to diagnostic and therapeutic needs.—Patients may be classified according to the particular diagnostic or therapeutic needs which they present. The suggested classification excludes that largest proportion of sufferers whose diagnosis and treatment can be effectively carried out by the general practitioner with or without the aid of a private consultant. It is concerned only with those cases whose diagnosis and treatment require more extensive measures. The family doctor is the best judge as to whether a particular patient needs to be referred to a special centre or to a private consultant, and accordingly, except in the case of indigent patients, these centres should accept patients only when referred by a doctor, either general practitioner or private consultant.

The classification follows: (1) A large proportion which, after attending at the out-patient department of the special treatment centre or local clinic, may be returned to their own doctor with a complete analysis of diagnostic factors, and an outline of the recommended program of treatment. In the case of indigent patients, treatment could be continued under the direction of the centre's out-patient department. (2) A fairly large proportion would, after preliminary investigation at the centre's out-patient department, be admitted to hospital. Such admission would be for two main reasons: (*a*) complete investigation over a two-to-four week period, and/or (*b*) instruction of the patient and his family in those simple measures of treatment which can be carried on at home, and in the proper regimen to be followed. On discharge, these patients, too, would be referred back to their own family doctor. (3) A small but nonetheless significant proportion who require to be hospitalized for special treatment of 6, 12 or 18 months' duration for the prevention or correction of deformities.

It will be neither unduly expensive nor complicated to provide the special treatment centres and local clinics required to meet the diagnostic and therapeutic needs of the patients in the first two of the foregoing classes. At both local general hospitals and at teaching hospitals, many of the facilities and skills required already exist, and it is but necessary to add those which are missing and orient the whole to the task. It should not, of course, be thought that a complete scheme of local clinics and special treatment centres could be created overnight. Probably the most limiting single factor is the number of physicians presently available with the special training, knowledge and enthusiasm required to direct such centres. As, however, special treatment centres are developed, selected physicians may attend as postgraduate fellows, after which they could be placed in charge of or practice in still other centres or local clinics. Thus, professional education and the special treatment centres go hand in hand, and the availability of both will increase in a sort of geometric progression.

Adequate resources for intensive physical therapy are essential to the modern treatment of deforming arthritis. The establishment of a clinic or centre for the indoor or outdoor treatment of chronic arthritis at most general hospitals would necessitate expansion of physiotherapy departments.

Accommodation for long-term patients.—Most difficult to meet will be the needs of the patients in the third mentioned class who require long-term hospitalization. At present, such hospital accommodation is almost totally non-existent. Too often, patients in this class can not be admitted to hospital until a stage of hopeless invalidity has been reached, or, if admitted, must be discharged to make room for patients acutely ill from other diseases. Many—probably most—reach and continue to live in a stage of hopeless invalidity without ever having received proper treatment. Even were the beds to be available, the majority of these patients could not afford to pay the costs of treatment, nor would it be paid for them under conditions of public medical care now prevailing in most communities.

At this time, it is impossible to estimate the number of patients annually who would require this form of long-term treatment. It should be

recognized, however, that the screening carried out at the special treatment centres would, in a relatively short period of time, give a fair indication of the numbers requiring it.

The needs of this group of patients are comparable to those of the tuberculous. Before adequate hospitalization was available for the tuberculous, and before governments, directly or indirectly, made provision for the payment of costs of treatment, the tuberculous attempted to carry on normal activity until their disease was far advanced, and their prospects of life greatly lessened. Those arthritics requiring long-term treatment today must, of necessity, carry on as best they can until they, too, have no reasonable prospects of regaining or retaining their health.

Incurables.—The plan herein proposed does not contemplate the hospitalization of incurables, but an effort should be made to ensure that such cases are actually incurable before they are so classified. In addition, many cases incurable in light of existing treatment facilities may at least be rendered employable, or able to lead near normal lives as facilities are expanded. So, too, the welfare, nursing home or familial care, and recreational needs of this group should not be forgotten.

DEVELOPMENT OF SPECIAL TREATMENT CENTRES

A special treatment centre cannot function efficiently without an adequate number of beds. To provide such beds in general hospitals may be difficult in view of present crowding; yet this is at the same time an argument for the designation of beds for this purpose. "The provision of a special wing or floor devoted to long-term patients insures that the special needs and problems of chronic disease are not lost sight of in competition with the more urgent and dramatic needs of the acutely ill."[5] This point is especially worthy of consideration by hospital authorities planning new construction.

Nevertheless, special treatment centres with many desirable features can be established with little if any additional construction, through an effective utilization of existing space and facilities. Where the recommended number of beds cannot be made available, outdoor services only may be provided, although efficiency will be reduced.

The needs of the third class of patients who require long-term treatment for the correction or prevention of deformities can only be met by additional construction of units of from 100 to 200 beds. The total requirement is not known, but as earlier mentioned, this can be ascertained through the screening to be carried out in the facilities described above. These units for long-term treatment need not necessarily be established in the immediate vicinity of the teaching hospital, although this would be desirable. They should, however, be professionally integrated with the teaching hospital, sharing the same directing and consulting staffs. They would, in fact, be an integral part of the special treatment centre, representing a further stage in its development.

The provision of additional bed units for the active remedial care — as opposed to nursing home care—of patients with chronic arthritis is closely related to the whole question of care for the chronically ill. Whether it is to be solved by the construction of additional designated bed units at or near general hospitals, or as a part of the more extensive development of chronic disease hospitals is a point which can only be decided in light of local circumstances.

Local clinics would undertake programs quite similar to those of special treatment centres, within the limits of their less extensive facilities. They would probably operate out-patient departments only, and on a part-time basis only.

Importance of social and vocational rehabilitation.—The most extensive treatment will still find many patients developing severe disabilities, and others in which disabilities cannot be wholly corrected. Yet many of them will have families to support. Thus, their medical and physical rehabilitation should be linked from the beginning with measures for social and vocational rehabilitation. Rehabilitation should start while the patient is under treatment. In many instances, the treatment provided will only make it possible for the patient to live in a better adjusted relationship with his or her disability. Rehabilitation can contribute to patient morale, and the group stimulus or therapy achieved by the concentration of patients of like disability at special treatment centres makes rehabilitation easier.

PROFESSIONAL EDUCATION

Professional education is fundamental to the scheme. While at the outset many physicians who are going to direct and practice in special treatment centres may have to be sent outside Canada for their training, ultimately this train-

ing can be given in the special treatment centres to be established. The training responsibilities of the special treatment centres would be:

Postgraduate.—(*a*) *Long-term fellowships.*—Fellowships of up to one year's duration should be accorded to well-qualified young doctors to prepare them for the direction of or to practice in special or local treatment centres. Generally speaking, they should be selected by university medical schools, and as a condition of taking the fellowship, should return to a part-time appointment at a teaching hospital, in order to disseminate their knowledge.

(*b*) *Short-term courses.*—Special treatment centres and local clinics should operate short-term courses of two to three days' duration for general practitioners, and conduct clinical demonstrations. Such courses would be designed to assist the general practitioner in making early and accurate diagnoses; in detecting cases which need to be sent to a special centre or consultant; and in the supervision of treatment measures in which the patient can co-operate outside hospital by following appropriate rest, physical exercises and regimen.

Undergraduate. — Increased and improved undergraduate education in the treatment and diagnosis of rheumatic disease will automatically follow from the establishment of special treatment centres at university teaching hospitals.

Technical. — The special training of technicians, and particularly, of physiotherapists, is an important educational function.

RESEARCH

The reason why one apparently healthy member of a family is afflicted with deforming arthritis while another escapes is still not known. Many aggravating or precipitating factors, such as infection, injury, exposure, mental stress, etc., are recognized, but the basic cause still remains an unsolved puzzle. It is probable that the "cure" for various types of arthritis will not be found until the specific cause is known. Consequently, there is an urgent need for fundamental and clinical research so that knowledge of the disease can be gradually extended.

A special treatment centre for arthritis provides an excellent opportunity for the clinical study of hundreds of different types of arthritis which is not otherwise possible. Only by well-kept records and a systematic follow-up can the value of any treatment be properly assessed. The more fundamental aspects of research require a team of physiologists, biochemists, pathologists, etc., as well as expensive laboratory equipment which is already available in most universities. Our universities might well be encouraged to devote greater attention to rheumatic diseases, through professional stimulus and financial assistance.

Additional provisions.—Additional provisions should be contemplated. There is, for example, the need for greatly increased social and vocational rehabilitation services not only in direct relation to the local clinics and special treatment centres, but also through an appropriate rehabilitation agency capable of providing required vocational guidance, vocational training, job placement and other services necessary for the patient's restoration to work following hospitalization.

A body of mobile physiotherapists, available to supervise the patient subsequent to discharge, might materially contribute both to the reduction of relapses through failure to carry out medical instructions at home, and also shorten the patient's required stay in hospital. It is important to bring physical therapy for the purposes of prevention of deformity and maintenance of muscle power to those physically unable to attend a special treatment centre because of bed shortages or otherwise. If the patient cannot be brought to hospital, then perhaps the hospital can be taken to the patient.

This is of great importance. The mistaken impression that rheumatoid arthritics "must keep going at all costs" stems from the fact that in the past such patients were allowed to lie vegetating, with a pillow under the knees, half sitting up, and sooner or later froze in that position. It is now known that when weight-bearing joints are involved, rest in bed often allows the inflammation in these joints to subside. "Freezing" is unnecessary if supervision assures that each day the involved joints are carried at least once, gently through the fullest possible range of movement, and muscular exercises are performed frequently throughout the waking day to maintain muscle power. All of this should be combined with other appropriate treatments. In exceptionally severe

cases, destruction of one or more joints is sometimes inevitable. In these rare cases, supervision will ensure that the unavoidable fixation occurs in such a position that greatest usefulness is preserved.

Many of the patients suffering deforming arthritis are women, whose domestic responsibilities make it impossible for them to take the prescribed rest at home without some form of domestic assistance. A home-maker service appears to be a desirable adjunct. A combination of mobile physiotherapists, home-makers, social workers and vocational rehabilitation workers available to visit the patient at home can do much to compensate at the outset for the lack of additional bed units for the provision of long-term treatment.

The mobile physiotherapists could operate either under the direction of the local clinic or special treatment centre, or on referral under the direction of the patient's own physician. Many areas can never support local clinics. Travelling clinics operating from special treatment centres will be necessary to give a proper coverage of less populous parts of the country.

PART III. ORGANIZATION OF THE CANADIAN ARTHRITIS AND RHEUMATISM SOCIETY AND ITS RÔLE IN A CONCERTED ATTACK ON ARTHRITIS

The Canadian Arthritis and Rheumatism Society was established in November, 1948. Its constitution calls for the creation of a division within each province, and local branches in the main centres of population. The affairs of the Society are directed by a National Board, which has the guidance of leading physicians, surgeons, and scientists serving on the Society's Medical Board. The affairs of the Provincial Divisions will be similarly directed.

There are six major projects which the Society proposes to undertake:

1. *Professional education.*—(*a*) A program of postgraduate fellowships to train young doctors in the most modern methods of diagnosis and treatment. (*b*) Assistance in the organization of special short courses for interested general practitioners.

2. *Research.*—To aid existing research facilities at universities and hospitals through a program of research grants and fellowships.

3. Awakening constructive interest among the medical profession and general public. The development of an informed public opinion will assist voluntary and government health authorities to participate effectively in the overall program and therefore the Society will undertake to collect and disseminate factual information to medical and lay public.

4. Aid in establishing special treatment centres or local clinics, probably in connection with existing hospitals.

5. Promotion of beneficial legislation or other endeavours, to secure improved facilities for prevention, research, diagnosis, treatment, rehabilitation or general welfare.

6. Additional measures (*e.g.*, projects according to need and facilities such as homemaker service, mobile physiotherapy, etc.).

The Society will make annual public appeals for funds to enable it to carry out its program. It is believed that the constructive measures planned to reduce the economic waste and suffering caused by rheumatic diseases, will receive the financial support of business, the people, and their governments.

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CHILDREN'S HEALTH CENTRES AND THEIR USES*

Donald Paterson, M.D.(Edin.), F.R.C.P.[Lond.& C.]

Vancouver, B.C.

IT may be well if we start by asking ourselves at once what is meant by a health centre for children. As I conceive it, its purpose should be to act as a consultative centre where advice can be sought on both the preventive and curative sides of children's diseases, in all their aspects. It is this close linking together of these fundamental aspects of child health under one roof which I wish to stress, and which are essential if the centre is to be a success.

Let me be more explicit. We should aim to gather in the one building a representative

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