A SYMPOSIUM ON THE WHEELCHAIR

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MINISTRY PRACTICE

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1. INTRODUCTION

As the Ministry of Health is responsible for the supply of invalid wheelchairs to disabled persons in England who need them, it is perhaps appropriate that I have been asked to give this short paper which might appear as a historical and factual background of the problem to which the subsequent papers and discussion will be addressed.

In the next fifteen minutes I shall try to give a brief account of the history of the growth of Ministerial responsibility in this field; to analyse the extent of the present need and to list the groups of diseases and disabilities which give rise to the need; to outline the organisation for recommendation and supply; and to give a short review of the medical aspects of wheelchair evolution and development.

2. HISTORY

The outstanding fact in the history of the provision of chairs at public expense is that the period during which this has been so is a very short one. Naturally the free supply of wheelchairs, as with most other appliances and ancillary aids to health, began whith those injured in the Armed Services.

When the Ministry of Pensions was formed in February 1917, some wheelchairs were being provided for disabled sailors and soldiers by the Lord Kitchener Memorial Fund. This continued until, in April 1918, the Minister of Pensions assumed liability for providing wheelchairs, but only for: (*a*) paraplegic cases; (*b*) double leg amputations (one above the knee); (*c*) double below-knee amputations (if the physical condition of pensioner made the supply necessary).

Hand-propelled tricycles were provided for these in these three groups who needed a tricycle to go to and from work. Other pensioners who were totally disabled as far as walking ability was concerned, and who were in employment, were considered individually on their merits. In 1934 the categories of those eligible for chairs were slightly extended, but were still confined essentially to the above groups.

Although from 1920 onwards some motors for attachment to Ministry chairs were made available by the British Red Cross Society, these were closely restricted to those most severely disabled and were only given when the hilly nature of the district made getting about in a wheelchair impossible; or where a man lived more than three miles from his place of work.

It was not until 1945 that the first powered units for tricycles were supplied as a Ministry responsibility.

From July 1948, the Minister of Health had the duty under the Health Act to promote the establishment of a comprehensive health service including the provision of surgical, medical and other appliances. In this connection the Ministry of Pensions undertook to act for the Ministry of Health for the ordering, supply and repair of wheelchairs and tricycles.

This responsibility was assumed directly by the Ministry of Health in 1953 and so continues.

3. PRESENT NEED FOR WHEELCHAIRS

During the past year the Ministry has supplied over 23,000 wheelchairs, of which 16,000 were issued to new patients and the total number at present on loan to patients is approximately 67,000.

It is apparent, therefore, that chairs issued by the Ministry are in use by patients for only four to five years, on average.

These chairs fall mainly into three groups:

(i) **General Purpose Folding Chair (Transit Chair).** In this chair, by the use of hand-rims on the wheels the patient can, at least, contribute to his own propulsion. It is a chair for use both indoors and outdoors.

This type of chair has been more and more in demand by consultants and patients and now makes up some 60 per cent. of all chairs asked for. The numbers have steadily increased from 10,000 on issue in 1956 to 40,000 at present.

(ii) **Folding Outdoor Chair.** This chair, having four small wheels and no propulsion rims, is supplied for those who are unable to maintain their own independence and need to be wheeled out.

They make up some 30 per cent. of all chairs issued (about 22,000 on issue at present).

(iii) **A Rigid-Framed Indoor Chair.** These chairs are supplied for those who need to lead a fully chairborne life within the home. They can give only domiciliary independence, but have the advantage of being able to be very well upholstered. They can be adapted for one-arm propulsion within doors and can be fitted with commode facilities.

Only 10 per cent. (7000) of all chairs supplied are of this type.

AGE GROUPING

	%
Patients over 50 years	75
Patients aged 20-50 years	15
Patients under 20 years	10

Diseases and Disabilities which Make a Wheelchair Necessary

(These figures are based on a random sample of 2000 in a total of 67,000)

	%
Arthritis (all forms)	28
Organic Nervous Disease	14
Cerebro-Vascular Disease	13
Lower Limb Amputations	9
Cerebral Palsy	8
Paraplegia (Traumatic)	7
Poliomyelitis	4
Neuro Muscular Disease	3
Respiratory and Cardiac Disease	3

Miscellaneous: Parkinsonism, Bone Injuries and Deformities, Epilepsy, Amentia, Hydrocephalus, Congenital Causes, etc.).

4. ORGANISATION FOR SUPPLY

Eligibility and Medical Recommendation. Wheelchairs can be provided for patients with such disabilities that the consultant considers one necessary 'in the interests of the patient's health'.

Recommendations for chairs are accepted only from consultants working within the National Health Service. They are not accepted directly from general practitioners or from doctors employed by Local Authorities. They are in fact considered to be 'appliances', the prescription of which is confined to the Consultant Service.

These recommendations have seldom been questioned except where it has appeared to the Ministry's officers that a different chair would have been more appropriate or where the Department had knowledge that another chair of the same type was already in the patient's possession.

The Ministry has central information about all chairs issued to a particular patient which may not always be available at the hospital.

Before April 1956 it was sufficient that the consultant inform the medical officer at the nearest A.L.A.C. that the need for a chair existed. The patient was then examined at the Centre and an appropriate chair ordered and supplied, but this procedure meant that even for the provision of the simplest wheelchair the

patient was being examined by three doctors, the general practitioner, the consultant and the Ministry medical officer.

After full discussion with all groups concerned it was agreed that, after April 1956, the hospital should not only say that a chair was necessary but also prescribe a particular chair. It was never intended that the special medical and technical knowledge at our centres would not be available for the different problems that occur in some 10 per cent. of cases. For these the Ministry readily undertakes either to see the patient at the Centre or to arrange that the doctor and a technical officer will visit the hospital to help to solve the problem—which may in some instances only be met by the design and building of special chairs.

We welcome the fullest exchange of detailed information at professional level on any case of special difficulty.

In addition, individuals or groups of those concerned at hospitals with wheelchair clinics are always welcome to visit our appliance centres to study a full range of wheelchairs and to discuss all problems with the medical and technical staffs. Many hospitals have accepted such invitations to supplement the information provided by the Ministry's Handbook (MHM 408) and 'Notes to consultants and others concerned with recommending the supply of invalid chairs' HM(61)44.

Courses for consultants, on all aspects of the provision of artificial limbs and the rehabilitation of amputees, are held regularly four times a year at Roehampton. During these courses, time is given for a full discussion of all problems concerned with wheelchairs. These free two-way exchanges keep the Ministry's doctors fully aware of the changing needs of consultants and their patients. During the past ten years some six hundred consultants have attended such courses.

5. WHEELCHAIR EVOLUTION

The technical side of this interest will be covered by my colleague, Mr. Walker, Chief Technical Inspector of the Ministry of Health, but I wish briefly to give the medical picture of the way this has developed since 1948.

By June 1950 the Ministry of Pensions had supplied 9000 wheelchairs to National Health Service patients. These were mainly of the rigid-frame type for indoor use, but in that year a small 'transit' chair, mainly for use with powered vehicles, was introduced. These weighed about 30 lb. and could be folded flat for carrying on a motor tricycle. They had fixed footrests and armrests, simple canvas seats and short backrests at a fixed angle to the seat.

This simple 'transit' chair, made for temporary use only, has developed into the general purpose indoor and outdoor chair of which 17,000 (of a total chair output of 23,000) were supplied to patients in the past year.

Instead of being a simple 'transit' chair it is now a robust chair weighing over 50 lb.

How has this evolution come about?

It is because the Ministry's staff has tried at all points to meet the medical need put forward by consultants for a chair which will meet the special requirements of the groups of disabled people whose increased mobility is their concern. Step by step new alternatives have been introduced until, on standard frames in three sizes (children's, adolescent and adult), over 20 items are available for the selection of the prescriber. These, to name only a few, include propulsion wheels

at the front or back, detachable armrests, back rests of selected height and angle to the seat, feeding or work trays, overhead gantries for arm slings—and many more.

I suggest to this meeting that this method of trying to supply over 20,000 chairs each year which will cater for the changing needs of a whole population, when the problem is under the control of doctors at both ends and where all cumulative suggestions are gradually incorporated in design, may be the best kind of clinical research into the problem, and that it amounts to an annual survey over the whole field.

What are the reasons for the dramatic increase in the numbers of chairs being asked for? Why has an average of 3000 a year in 1950 become 23,000 in 1963?

It is well known that Britain has an ageing population, ageing to the extent that five and a half million people are now over the age of 65. But the annual demand is increasing at a much greater rate than can be accounted for by the general rise in the numbers in the upper age-groups.

I suggest that there are two main factors—which are bringing this increased demand.

First, medical and surgical advances are saving more and more, especially of the old people, not only prolonging their lives but giving more opportunity for continued broader living activity.

Secondly, we are living in the age of 'rehabilitation'. Doctors are less and less content to accept that large numbers of their patients are beyond the point where they can be given independence, at least within their own homes. Less and less is a bed existence and an institutional life thought to be the acceptable outcome of the efforts of the hospital team.

This consciousness of the need for rehabilitation is not confined to the medical world. It is more and more understood and expected by disabled people, by their relatives and by interested Associations concerned with the welfare of their members.

Wheelchairs are only one, but an important one, of the aids to a wider life and independence. They must go on evolving to meet the changing needs brought about by changes in the overall picture of disability drawn by the successes of medicine, and by longer life.

The success of preventive medicine in reducing epidemics of poliomyelitis will reduce the need for wheelchairs for young people seriously disabled by this disease. Preventive medicine and antibiotic therapy have considerably reduced the numbers of pulmonary cripples, the result of tuberculosis. The number of children and young adults who are victims of bone tuberculosis has dwindled. But on the other hand increase in road traffic density is increasing the numbers of those permanently disabled by road accidents.

Increased expectation of life brings more and more old people with multiple arthritis to depend for their mobility on wheelchairs, until now nearly a third of all chairs are needed for this group.

The problems of design and production are, therefore, never static. Older needs fall and new needs rise.

Everyone concerned with the welfare of the disabled in this country must be grateful to the sponsors of this Symposium, the National Fund for Research into Poliomyelitis and other Crippling Diseases, and the Building Exhibition, for the imagination which has brought it about. We are very happy to have been asked to make our contribution.