MEDICAL PRACTICE

Hospital Topics

A stroke unit in a district general hospital: the Greenwich experience

PETER BLOWER, SHAUKAT ALI

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Strokes are the commonest cause of severe permanent physical disability in Britain,¹ and their care consumes a considerable proportion of acute medical resources. The reported incidence in Britain varies,²⁻³ but 150 cases per 100 000 a year is a useful approximation for planning. In some areas about 40% of patients with stroke are admitted to hospital²⁻⁴ with some evidence that they are more physically disabled than those left at home.⁵ Between one-third and one-half of the patients admitted to hospital will die within the first three weeks,²⁻⁶ and of the survivors, about one-quarter will be confidently independent, one-half will be able to walk independently using an aid and have limited personal independence, and one-quarter will remain heavily dependent, usually confined to bed or chair.⁶⁻⁷

The care of patients with stroke may be arbitrarily but usefully divided into an acute care/investigative phase and a rehabilitation phase. We agree with Mulley and Arie⁸ that this first phase is best managed in hospital. Though uncommon, treatable lesions are more likely to be recognised in hospital, and the sheer effort needed and the difficulties that arise in managing at home a semiconscious or severely paralysed patient who initially may be incontinent should be recognised. In many general hospitals patients with stroke are admitted under the care of general physicians, and this acute care/investigative phase is accepted as being part of general medicine and is dealt with competently. The level of interest in the rehabilitation phase is unfortunately likely to be lower. As the hard

work of rehabilitation is done not by doctors but by nurses physiotherapists, occupational and speech therapists, and social workers, this might not matter except that this relative indifference is often communicated to these professions, who thereby feel deprived of the skilled and enthusiastic leadership necessary when dealing with patients who commonly have complex medical and social problems.

The responsibility for rehabilitating these patients cannot be passed to residential rehabilitation centres—the numbers are too great. The major residential rehabilitation centres in the four Thames regional health authorities (total population 13 666 000) treated a total of 520 patients with hemiplegia in 1977 (Farnham Park, Bucks, 41; Garston Manor, Herts, 82; Passmore Edwards, Clacton, 228; and Wolfson, Wimbledon, 169). A stroke incidence of 150/100 000/year and a three-week survival ratio of 60% suggests that in this population during 1977 there would have been about 20 000 cases of stroke and 12 000 survivors, of whom about 75% would have been left with some considerable physical disability, usually a hemiparesis or hemiplegia. Clearly less than 10% of such cases ever get to a residential rehabilitation centre. The corollary is that at least 90% of patients with stroke are managed locally and that as no major expansion of residential rehabilitation centres is planned, the problem of stroke management will remain one that predominantly must be tackled locally in the foreseeable future.

The Greenwich units

THE STROKE REHABILITATION UNIT 1972-7

Planning for the first Greenwich unit—the stroke rehabilitation unit—was based on two hypotheses. Firstly, that care of patients with stroke, and in particular the management of the rehabilitation phase, was poor in most hospitals including our own and, secondly, that the most effective way of improving stroke rehabilitation would be to collect patients together. This

Greenwich District Hospital, London SE10 9HE

PETER BLOWER, FRCP, consultant in rheumatology and rehabilitation
SHAUKAT ALI, MRCP, consultant physician in geriatric medicine

would allow one group of people—doctors, nurses, and therapists—to develop their skills in treating patients with stroke and prevent the unfortunate isolation that sometimes occurs with such patients. A survey performed three times at monthly intervals in 1971 had shown that between five and 11 acute medical beds in the hospital were occupied by patients with stroke. The medical staff committee agreed to a proposal to form a stroke unit of six beds in part of a 33-bedded medical ward. Control was to be shared between the consultant in geriatric medicine (Dr R V Boyd, 1972-3) and the consultant in rheumatology and rehabilitation, and the junior medical staff were to come from the department of geriatric medicine.

All patients with stroke were to continue to be admitted under general physicians for their acute care/investigative phase but any patient with a neurological deficit that required rehabilitation training for over two or three weeks would be eligible for transfer to the stroke rehabilitation unit. All patients were admitted to the unit on a trial basis. If it became clear after an adequate trial of rehabilitation, and this might take three months in complex cases, that discharge home was not possible and that future placement would have to be in Part III residential accommodation or its equivalent or in a continuing hospital care unit, and if such care were not available within the immediate future, then these patients were transferred back to their referring ward to await this.

All who worked on the unit considered it a success, but we have no figures to prove that patients with stroke were rehabilitated more completely or swiftly there than were patients scattered throughout the medical wards. Nurses and therapists, however, now believed that at last patients with severe stroke were receiving the maximum therapeutic effort available within the hospital. When failures occurred, as inevitably they did, the therapeutic team thought that it was the extent of the neurological deficit plus or minus the social circumstances rather than insufficient treatment that had rendered return home impossible. At least the common irritations and difficulties that had sometimes hindered rehabilitation when patients were dispersed—such as a lack of interest in retraining bowel and bladder control, a disinclination to allow patients to have their clothes and

to practise dressing while on the ward, and a lack of follow-through in the evenings and at weekends of programmes of feeding, dressing, walking, and wheelchair use that had been started by therapists during the normal working day—had been eliminated.

THE COMPREHENSIVE STROKE UNIT 1977 ONWARDS

In 1976, when the hospital was finished, we enlarged and developed the unit. The geriatric department has one smaller than normal ward of 20 beds—three six-bedded bays, two single rooms, and a day room—and it was decided to use 14 of these beds for the new stroke unit, leaving six for geriatric patients. The new unit was to accept responsibility for the acute care/investigative phase as well as the rehabilitation phase; all referrals to the hospital of patients with stroke were to be channelled through it. The medical staffing remained unchanged and the unit opened in April 1977. The major advantages and disadvantages of the two types of unit that we have had at Greenwich are listed in table I. Special units themselves are not an unmixed blessing, and some of the more obvious pros and cons are listed in table II.

During its first 12 months the comprehensive stroke unit showed a bed occupancy of 93%. Despite this, at times patients with stroke could not be admitted to the unit and were therefore admitted under the care of general physicians. All those requiring a prolonged rehabilitation programme were eventually transferred to the stroke unit. Ultimately, we hope to assign 17 or 18 of the beds in our 20-bedded ward to stroke care.

Discussion

Consultant leadership is the most important single element in setting up and running a stroke unit, but there are no hard rules about the medical disciplines. In a pure rehabilitation unit where acute medical care and neurological screening have been completed and which has no long-term placement responsibilities then consultants in general medicine, geriatric medicine, neurology, rheumatology and rehabilitation, or orthopaedic surgery would all be suitable. A unit providing comprehensive care such as the second Greenwich unit has two major additional responsibilities—the investigation and acute care of newly admitted patients and the long-term placement of those patients unable to return home. The last is a key issue, for without the services of an energetic and purposeful social worker, and even more importantly the co-operation of the local geriatrician, the unit will quickly silt up with rehabilitation failures (20 to 25% of three-week survivors) and fail. Although we have emphasised that in most hospitals the greater deficit in stroke care occurs in the rehabilitation phase, it is important to acknowledge that the acute care/investigative phase can also usually be improved. An interested neurologist with ready access to computerised axial tomography and other investigative facilities can play a uniquely helpful part in this first phase.

The next key appointment is the ward sister. Certainly, the greater the skill and experience of the therapists the better, but, however talented they may be, the unit will never flourish without the right sister. She is the person who more than any other determines the atmosphere and morale of the ward, particularly in the oft-forgotten “off-peak” hours of evenings, nights, and weekends. Most nurses have been taught to be very caring for individual patients and, initially, need much help and guidance from the ward sister in adopting the “stand back and let the patient do it” attitude that is so important on any rehabilitation unit. If the therapists are constantly encouraging patients to be independent and the ward staff have not adopted this approach confusion results.

Clearly a study comparing the results of a unit like ours with the more traditional approach to stroke care is needed.

TABLE I—Organisation of stroke care in a district general hospital

Advantages	Disadvantages
<i>All physicians (Greenwich pre-1972)</i>	
Nil	Patients scattered throughout medical wards Consultant/ward staff may have little interest in patients with stroke
<i>Stroke rehabilitation unit (Greenwich 1972-7)</i>	
All cases have acute medical care and neurological screening performed in general medical area and come to the stroke unit only for rehabilitation	Only moderate/severe cases are transferred. (Milder cases never transferred)
No long-term placement problems as all patients are accepted on a trial basis and rehabilitation failures are returned to the referring unit	Because of above turnover is slow. Morale may suffer Unit will tend to be small Service to community may be sub-optimal because general physicians may be unwilling to admit patients with stroke to the medical beds
<i>Comprehensive stroke unit (Greenwich 1977-)</i>	
Mild cases as well as severe ones admitted, giving more turnover and more good results	Unit now responsible for acute medical care including unconscious patients
No transfer of patients or responsibility within hospital	Also responsible for medical and neurological screening
Unit now big enough to be a major part of a ward	30 to 50% of admissions will die
Maximum rehabilitation programme commensurate with clinical condition from time of admission	Responsibility for long-term placement of rehabilitation failures now rests with the unit
Possible better service to community	

TABLE II—Special units: advantages and disadvantages

For	Against
Better service for difficult problems	Fragmentation of clinical practice
Better training opportunities—in a limited field	Reduced training opportunities for those outside the unit
Better research opportunities	

This would be difficult in any one institution, and matched hospitals and an outside assessment team seem mandatory. We would deny vigorously that we squander resources. The establishment of nurses, occupational therapists, physiotherapists, social workers, and speech therapists resulting from the creation of either of our units has not increased. The patients have always been with us and had to be treated—nowadays it is done more efficiently.

Conclusions

The rehabilitation of patients with stroke is poor in most hospitals, and the single most important step in improving care is to collect the patients together so that one group of staff may develop their skills. We have no absolute recommendations whether a hospital should develop a "stroke rehabilitation unit" or a "comprehensive stroke unit" or which medical disciplines should provide the consultant leadership. Much will depend on local circumstances and personalities, though at Greenwich we

believe that the comprehensive stroke unit opened in 1977 has significantly improved the total care of patients with stroke within the hospital compared with the service offered by the preceding stroke rehabilitation unit.

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Clinical Topics

Unblocking beds: a geriatric unit's experience with transferred patients

C JOAN McALPINE

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Summary and conclusions

A study was made of all patients admitted to a geriatric unit over several years. The admission policy included a high degree of priority to requests for transfer from acute beds, which resulted in transferred patients accounting for 25% of admissions. Unblocking acute beds did not lead to prolonged delay in admitting patients from the community to the geriatric unit. Almost 30% of beds allocated to transferred patients were recovered in 30 days.

Introduction

The transfer of patients from "acute" beds to "geriatric" beds is an emotive subject. Departments of geriatric medicine are often accused of dragging their feet in this matter thus leading to blocking of beds by elderly patients.

This unit has given a high degree of priority to requests for patient transfer, and it seemed of interest to examine the effects of such a policy.

Background circumstances and method

The department serves an urban and rural population of some 210 000 and is located in a scattered complex of buildings adjacent to the acute hospital. It has 15 beds per 1000 elderly recommended by the Hospital Plan for Scotland in 1962¹ but is without day hospital facilities.

The study was carried out principally over two complete years, 1974 and 1976. All admissions including transferred patients were recorded. The numbers and sources of transferred patients were examined, and the time taken to effect transfer and the outcome of their stay were recorded. Less detailed studies were made of other years for comparison.

Initially one consultant (CJM) was responsible for transfer arrangements and later two. Apart from the confused ambulant patients, requests for transfer were usually accepted without demur after written or verbal requests. There are no formal or informal arrangements for elderly patients to be seen by the consultants in geriatric medicine before the request for transfer.

Results

Requests to accept transferred patients came from the departments of medicine, orthopaedics, surgery, casualty, infectious diseases, and others in order of decreasing numbers. The "others" included gynaecology and various hospital departments outwith the district.

On average, patients were transferred within six days from date of request, many within a day or two. Accepting transfers did not result in undue delay in admitting patients from the community, most of whom could be accommodated either the day they were visited at home or within a day or two. Only a few people, whose medical and social conditions permitted, had to wait more than a week for a bed. Transferred patients represented almost a quarter of all the admissions to the geriatric unit (table I). The medical unit contributed the largest

Royal Alexandra Infirmary, Paisley PA2 6AB

C JOAN McALPINE, MB, MRCP, consultant physician in geriatric medicine