pernicious anaemia and Sjögren's syndrome despite isolated case reports. Patients with pernicious anaemia do not have an increased prevalence of keratoconjunctivitis sicca.[30] Associations between Sjögren's syndrome and liver disease (especially chronic active hepatitis)[31] and fibrosing alveolitis[32] have been reported. Mitochondrial antibody (a non-organ-specific antibody) has been detected in the sera of about 6% of patients with the sicca syndrome in titres normally associated with liver disease and has been shown to be associated with histological evidence of liver disease.[33 34] Antibodies to salivary duct cells can be detected in roughly half of all patients with Sjögren's syndrome though their pathogenic significance is doubtful.[35]

Management

In most though not all patients suffering from keratoconjunctivitis sicca 0·5% carboxymethylcellulose eye-drops provide symptomatic relief. As most patients have increased bacterial counts in the conjunctivae we frequently begin treatment with a month's course of chloramphenicol eye-drops, carefully observing the patients for the development of drug allergy. The mucolytic agent acetylcysteine shows promise in the treatment of keratoconjunctivitis sicca but needs to be fully evaluated. Some patients resistant to treatment with eye-drops and who have residual tear formation have improved with nasolacrimal duct occlusion. In certain patients, unfortunately, the disease progresses despite all treatment, and complications such as corneal perforation and vascularization occur. These, of course, need expert ophthalmological attention.

The lack of adequate treatment for the dryness of the mouth is reflected in the variety of remedies suggested. Attempts to stimulate salivation with pilocarpine and neostigmine have failed, and patients mostly resort to frequent sips of water and to the use of citric acid or pure lemon juice. The tendency to dental caries makes regular dental treatment doubly important. Occasionally suppurative parotitis may complicate the picture and should be treated with antibiotics. Irradiation of enlarged lacrimal and salivary glands should be avoided in view of the possibility that it may trigger malignant lymphoma development.

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Making Hospital Geriatrics Work

H. M. HODKINSON, P. M. JEFFERYS

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Summary

The first year's work at a new geriatric department at Northwick Park Hospital shows that active policies revolutionize the geriatric service and result in high turnover of patients and no waiting list. Comparison with low turnover/waiting list departments shows the effects of a waiting list in terms of diminished therapeutic benefit and less favourable outcome for patients admitted. The requirements for elimination of the waiting list appear to be well directed policies and adequate and enthusiastic staff. Active geriatrics results in high morale and could be widely applicable within the present hospital bed resources given the necessary improvements in staffing.

Northwick Park Hospital, Harrow, Middlesex
H. M. HODKINSON, B.M., M.R.C.P., Consultant Geriatrician
P. M. JEFFERYS, M.B., M.R.C.P., Registrar in Geriatrics (Present address: Maudsley Hospital, London S.E.5.)

Introduction

This paper looks at the first year of a new geriatric service based on Northwick Park Hospital, a new district general hospital combined with a clinical research centre, which opened in 1970. The geriatric department admitted its first patients in October 1970 and during the following year built up gradually in size to its present 114 beds, 25 in Northwick Park and 89 in two small hospitals in the neighbourhood (Roxbourne and Harrow Hospitals). The department has taken on responsibility for a catchment area of about 140,000 population (17,000 over 65), most of which is in the borough of Harrow with a smaller part in Brent. The area had previously been part of that served by a seriously overburdened geriatric department based on Edgware General Hospital, whose problems were outlined by Binks.[1] In

the first year our medical staff consisted of a consultant, a senior registrar, and a senior house officer, with two general practitioners giving help on a sessional basis at the two outlying hospitals. In addition a registrar was appointed during the year.

Organization of Service

The previously existing geriatric service had relied on preadmission domiciliary assessment of patients and had run with a long waiting list and low admission rate. We hoped to achieve a different type of service with our new resources, and so at the outset contacted the local general practitioners to acquaint them with our intended policies. They were asked to refer patients for admission on their own assessment, contacting either medical staff of the department or the continuously manned admissions bureau set up at Northwick Park Hospital. There would be no preadmission assessment by the department's staff, but domiciliary consultation or outpatient opinions would be available when required for an individual patient. We explained our intention to run a geriatric service without a waiting list and with the minimum of barriers to admission for elderly patients (usually over 65, though patients of 60-65 could be taken by agreement). Provisos were that patients referred should need *hospital* care as opposed to residential care in a local authority old persons' home and that fit but mentally disturbed elderly patients requiring hospital care should continue to be referred to the local psychiatric hospital. It was made clear that the geriatric department accepted responsibility for *ill* patients irrespective of their mental state.

Our emphasis was on active treatment and rehabilitation with an early-discharge policy aiming to avoid the development of a waiting list. We placed great reliance on the help of the medical social workers and sought to build close links with the local authority domiciliary services. All admissions were made to the 25-bed ward at Northwick Park Hospital, where full facilities were available for investigation and treatment. The ward had a readily adjustable distribution of beds allowing the admission of either sex to a vacancy. Roughly half of the patients were subsequently transferred to Harrow Hospital for continuation of treatment and rehabilitation. Patients needing long-stay care were transferred to Roxbourne Hospital, so that the department followed a scheme of "progressive patient care."[2]

First Year's Work

From October 1970 to October 1971 the department admitted 542 new patients, of whom 76 (14%) were transfers from other clinical departments of the hospital group or from other hospitals. Most of the direct admissions occurred on the day of the request for admission, and even in the winter months only few patients waited for up to a few days. Few patients were admitted from the outpatient department but moderate numbers came from the group casualty department. About 20 patients were admitted in the summer months as "holiday admissions" for booked periods of two weeks. Transferred patients were usually taken over during their first month in hospital.

The average available beds for the first year was 88, giving a turnover of patients of 6·16 admissions per bed/year for our department. By comparison the regional average is 2·8 and that for England and Wales 3·0 for geriatric departments.[3] Altogether 36·7% of the patients were men and 63·3% women, and their average ages were 77·6 and 80·4 years respectively. The distribution by five-year age groups of the patients admitted (Table I) serves to illustrate that the geriatric age group begins more properly at 70-75 rather than 65, for only 9·4% of the patients were under 70.

Turnover was not inflated by any scheme for planned intermittent readmission of patients as advocated by DeLargy.[4] First admissions formed 85% of the total. In the main readmissions (Table II) represent further admissions due to new episodes of illness rather than failed discharges.

TABLE I—*Age and Sex Distribution of Patients*

Age in Years	Male		Female		Total	
	No.	%	No.	%	No.	%
60-64	7	3·5	6	1·8	13	2·4
65-69	17	8·5	21	6·1	38	7·0
70-74	54	27·1	46	13·4	100	18·4
75-79	48	24·1	83	23·9	131	24·2
80-84	36	18·1	87	25·4	123	22·7
85-89	24	12·1	72	21·0	96	17·7
90-94	6	3·0	27	7·9	33	6·1
95-99	7	3·5	1	0·3	8	1·5
Total	199	100·0	343	100·0	542	100·0

TABLE II—*Numbers of Times Patients were Admitted to Northwick Park Hospital*

	Male		Female		Total	
	No.	%	No.	%	No.	%
First admission ..	163	85·4	298	89·0	461	87·7
Second admission ..	24	12·6	31	9·2	55	10·4
Third admission ..	4	2·0	5	1·5	9	1·7
Fourth admission ..	—	—	1	0·3	1	0·2
Total ..	191	100·0	335	100·0	526	100·0

OUTCOME FOR PATIENTS ADMITTED

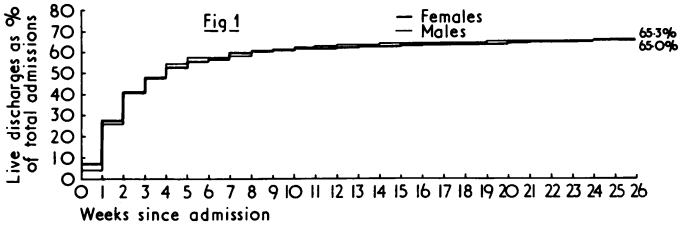
The outcome of the admissions at three, six, and 12 months is shown in Table III. Discharge rates for men and women appear closely similar, and examination by cumulative percentage discharge curves (Fig. 1) shows them to be practically identical. There was a pronounced difference in death rates, which were higher in men. The greater mortality was mainly manifest during the early weeks (Fig. 2). Balancing the higher male mortality was an increasing excess of women patients still in hospital (Fig.3). A patient's prospects of discharge fall progressively with time. Within the first four weeks of admission 48% of the patients were discharged, but only 31% of those remaining were discharged within the second four-week period. Of the latter patients 19% still in after eight weeks were discharged in the next four weeks, and of those remaining less than 10% were discharged in subsequent four-week periods.

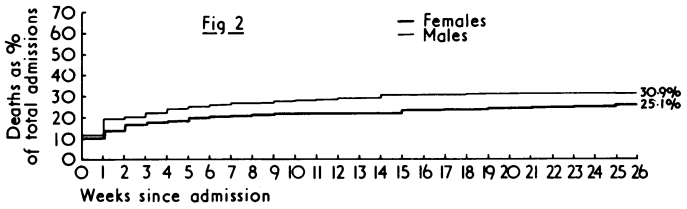
Death risks fall even more quickly. There was a 19% risk of death within the first four weeks, but for those remaining in hospital the risks for the following four-week periods were around 8%. A consequence of these altering chances is that the prospect of remaining in hospital increased the longer a patient had been in already. A third of the patients admitted remained after four weeks, but over half of these stayed in for a further four weeks and three-quarters of those stayed for the next four weeks.

TABLE III—*Outcome of Admission during the First Year's Operation of the Service*

	Sex	3 Months	6 Months	12 Months
Discharged*	M.	63·4	65·1	65·5
	F.	62·2	65·5	67·7
Died in hospital	M.	28·8	30·8	31·4
	F.	21·5	25·1	26·3
Still in hospital	M.	7·8	4·2	2·6
	F.	16·0	9·5	2·7
Outcome still awaited ..	M.	—	—	0·5
	F.	—	—	3·1

* Includes 3·7% of the men and 1·0% of the women transferred to other hospitals.





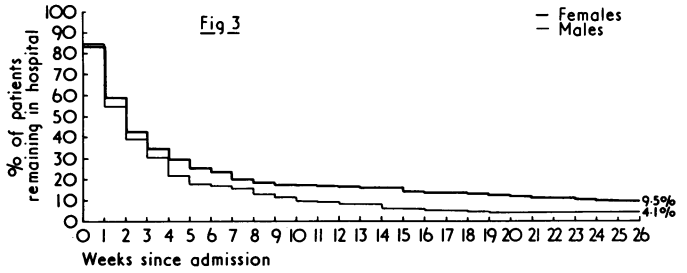


FIG. 1—Discharge rates of patients admitted to the geriatric department.

FIG. 2—Mortality rates among geriatric admissions.

FIG. 3—Proportion of geriatric patients remaining in hospital.

Comparison with Other Departments

Our findings of a female admission rate roughly double that for males and for a higher average age for women agree closely with those in other geriatric departments. The same is true as regards faster turnover of men with a higher mortality rate. This has the effect that while about two-thirds of the patients admitted are women they occupy about three-quarters of the available beds.

Our experience is less typical, however, in regard to turnover of patients (6·16 per bed yearly). A survey conducted for the British Geriatrics Society in 1962[5] showed that only a tenth of departments had "high" turnovers, in the range 4·0-6·75. The average turnover for departments in England and Wales was 3·0 for 1969,[3] suggesting that there had been no substantial improvement in this respect. In Table IV the findings for our department may be compared with those taken from two published accounts for units of lower turnover[6 7] and with the unpublished findings for the previous department of one of us (H.M.H.). They cover a six-year period (1964-9) for a department serving parts of Enfield and Haringey. All four departments are from the Greater London area. The Enfield and Haringey figures are included as the Northwick Park department's first year might be thought unrepresentative because of the initial bonus of some empty beds. Experience in the department's second year so far shows that turnover may indeed be lower but only by about 10%. At Enfield and Haringey there was a slow rise of turnover over the years, suggesting that the Northwick Park turnover may regain or surpass the level of its first year in future years.

The comparison shows that while the high turnover units have a lower proportion of deaths, the deaths per bed per year are substantially higher, and this excess makes an important contribution to the difference in turnover rates. More striking, however, is the contribution made by higher discharge rates which, in fact, account for two-thirds of the difference between the high and low turnovers. Discharges are not only more numerous but tend to occur earlier, as is shown by the much higher percentage of discharges which are achieved within eight weeks in the high turnover departments.

TABLE IV—*Findings in Four Geriatric Departments*

	Present series	Hodkinson	Pritchard and Hamilton-Hislop[6]	Mestor[7]
Turnover (admissions/bed-year)	6·16	6·10	2.70	2·08
Deaths as percentage of admissions	33%	40·5%	48%	43%
Turnover due to deaths	2·04	2·46	1·29	0·89
Turnover due to discharges	4·12	3·64	1·41	1·19
% Discharges made in first 8 weeks	88%	90%	65%	—
Available beds/1,000 over 65	6·7	6·4	10·4	11·2
Waiting list for admission	No	No	Yes	Yes

Discussion

The essential and basic difference between low and high turnover departments is the presence or absence of a waiting list for admission. No waiting list in a high turnover unit allows a large proportion of admissions to consist in the acute medicine of the very elderly. Such a department may play a dominant part in the care of medical patients over 70.[8] This considerable short-stay case load of a high turnover department must be extra to the unavoidable one of patients with greater disability and poorer prognosis, who comprise the potentially long-stay case load and account for most of the work of low turnover departments. It might therefore be expected that the high turnover units would be those favoured with more beds in proportion to the catchment area population, but reference to Table IV shows that the reverse obtains in these examples. The two high turnover units have bed provision well below the level of 10/1,000 over 65, which is the Department's norm, while the two low turnover units have provision slightly above this.

This seems to imply either that the areas served by the high turnover units are unusual in failing to generate so many problem cases or that high turnover units can deal with the problem cases more effectively in some way. The comments of Binks[1] on the area including that which our department now serves appear to discount the first possibility, so that the second is likely to be the correct interpretation.

EFFECTS OF A WAITING LIST

Isaacs's[9] experience of a department with a considerable waiting list pressure is compared with our own in Table V for outcome three months after admission. His less favourable results could be attributed to the filtering off of the short-stay type of case by the presence of a waiting list. Nevertheless, Isaacs's findings for the subgroup of patients selected on the basis of "therapeutic optimism"—that is, those thought likely to benefit from short-stay hospital treatment—show a less favourable outcome than for our overall findings. This implies that a waiting list blunts therapeutic effectiveness, and it probably affects all groups of patients, the rough and the smooth alike. A waiting list could influence outcome in the following ways.

TABLE V—*Outcome at Three Months of Geriatric Patients admitted to Northwick Park Hospital and the Glasgow Royal Infirmary (Isaacs[9])*

	Northwick Park Hospital	Glasgow Royal Infirmary All Patients	Glasgow Royal Infirmary "Therapeutic Optimism" Subgroup
Discharged	63%	29%	52%
Died in hospital	24%	33%	20%
Still in hospital	13%	38%	28%

Deterioration while Awaiting Admission.—Patients who should benefit from hospital treatment but who are obliged to wait may deteriorate meanwhile and require a prolonged stay when finally

admitted. Obvious examples are additional complications such as pressure sores, which will delay or prevent subsequent discharge. A patient with a stroke needing rehabilitation may lose confidence, balance, and motivation while waiting.

Morale in Hospital.—High turnover and a system of progressive patient care ensure a short average stay in admission wards (just over two weeks in our department). As nearly half of those admitted are discharged in the first month an optimistic therapeutic environment is maintained. With good communication high morale can be achieved among the patients, their visitors and relatives, and the hospital ward staff. This contrasts with low turnover departments, where less frequent discharge and a greater relative load of patients with less favourable prognosis can produce a very unfavourable therapeutic environment where failure rather than success can too easily become the dominant example and influence.

Resistance to Discharge.—Patients, their friends and relatives, and their general practitioners are all more likely to resist discharge if they have endured a wait for admission. They will wish to avoid the possibility of another wait should readmission ever be required. The high turnover department has the great advantage in selling the idea of discharge of convincingly being able to offer the safety-net of immediate readmission should things go wrong.

Premature Referrals for Admission.— The presence of a waiting list can have the paradoxical effect of facilitating premature or unnecessary admission. The fear of a wait for admission creates the pressure to anticipate events by referring the patient for admission before this is actually needed. For example, a patient with incurable malignant disease likely to require terminal care at some future time may be put on a waiting list to insure against a long wait when admission becomes a pressing need. Admission may well be offered before the real need has arisen but may be accepted so as not to miss the opportunity which might not readily come again when actually needed. Conversely, in the absence of a waiting list the patient and his general practitioner can wait for the right moment for admission, and this may be later or never.

HOW NOT TO HAVE A WAITING LIST

We believe that whether or not a geriatric department has a waiting list is more a matter of choice by its medical staff than a reflection of local circumstances. It does not depend on generous bed provision; indeed, lower bed provision may be an additional stimulus to high turnover. Adequate staffing—medical, nursing, and ancillary—is probably of greater importance. Medical staff need to have the elimination of a waiting list as a major aim in shaping the policies of setting up and running their department. Both high turnover/no waiting lists and low turnover/waiting lists tend to be self-perpetuating, so that the main effort is in first eliminating a waiting list. To achieve this result we believe that admission criteria need to be defined and made known to general practitioners, as outlined above.

Support of local practitioners is crucial, and we advocate the removal of unnecessary barriers to admission such as domiciliary assessment visiting and instead showing our trust in the general practitioners' reliability in assessing their own patients' needs. A waiting list for geriatric admissions presents great problems to general practitioners, and we believe that they are willing to make great efforts to support a department in maintaining a no waiting list situation. They play fair with such a department and are less likely to refer inappropriate problems to it as the "line of least resistance." They are more willing to support problem cases at home which would otherwise need custodial care in hospital if they know that help is available quickly if things go badly, realizing that this is a real help to keep the service running effectively.

The geriatrician must keep up a pressure on investigation, medical treatment, rehabilitation, and the organization of discharges. He cannot tolerate unnecessary delays at any stage. He may have to accept less than complete therapeutic result in a shorter time as the alternative to a full response taking longer. This is dictated not simply by the need to clear a bed earlier for admissions but by the difficulty of discharging a patient, which we have shown rises steeply. After three months discharge becomes very much harder because of "institutionalization" and "social dehiscence"—that is, the withering of the patient's ties with the community. The real choice may not be between earlier or later discharge but between early discharge and no discharge.

The fight against time applies strongly in deciding the policy for taking patients by transfer from other departments. It is vital that they should be taken early in their hospital stay, and then a gratifying number can be subsequently discharged, and few become long-stay patients.[10] If transfers are taken several months after admission, morale, institutionalization, and social dehiscence ensure that little therapeutic opportunity remains.

Conclusions

A major problem in the field of geriatrics is that of underexpectation affecting patients, the public, and perhaps most importantly the medical profession itself, exemplified by the use of such expressions as "clinical undertaking"[11] and "predeath."[12] The geriatric waiting list has been accepted too often and for too long as a normal and expected phenomenon, with consequent erosion of the therapeutic benefits which hospital care can offer to the elderly. Arie[13 14] showed that an active approach in the psychogeriatric field can result in high morale and professional satisfaction in medical work with the elderly. We wish to draw attention to the similar advantages of an active approach to geriatrics. While calling for greater efforts from medical, nursing, and ancillary staff of the department our first year's experience has convincingly shown that able and enthusiastic staff can be recruited and retained and that their morale is high. All staff have had the satisfaction of pioneering a valuable service which has provided a stimulating challenge to professional skills. Collaboration between disciplines has been fostered and unusually good opportunities for research and training have arisen out of our work. Within the hospital, geriatrics has been accepted as a "full member" among the departments and not cast in its usual role of a poor relation.

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