

THE ULSTER MEDICAL JOURNAL

PUBLISHED ON BEHALF OF THE ULSTER MEDICAL SOCIETY

VOLUME 47

1978

No. 2

EMERGENCY ADMISSIONS TO A GERIATRIC MEDICAL UNIT

R. W. STOUT, M.D., M.R.C.P.

L. A. HOBSON, M.B.

ANONA E. WALMSLEY, M.B., D.R.C.O.G.

Geriatric Medical Unit,
Belfast City Hospital.

DIRECT admission of patients from home is the predominant method of admission to geriatric medical units. Admission may take place as the result of a telephone consultation with the general practitioner or, in less urgent cases, following a domiciliary assessment visit by a member of the medical staff of the unit. However, in recent years the pattern of referral to hospitals in Belfast has changed. This has been brought about by the simultaneous development of general practitioner deputizing services and the emergency bed service. As a result, many more elderly patients are admitted from the casualty department without direct contact between the family doctor and the hospital medical staff. As it has been the custom for general medical units to accept all medical admissions from the casualty department, this has resulted in a change in the pattern of admission to both the geriatric medical and general medical units. To take account of this change in referral pattern it was decided to start a system of direct admissions from the casualty department to the geriatric medical unit of the Belfast City Hospital. This paper describes the results of the first year's working of this system.

METHOD

One of the features of geriatric medicine is that it provides a continuing commitment to a defined section of the elderly population. This is organized on a geographical basis. The wards of the Geriatric Medical Unit, Belfast City Hospital provide the hospital facilities for Geriatric Sector A which is mainly located in South Belfast and corresponds to postal districts 2, 6, 7, 8 and 9

(Adams, 1969). It also provides part of the services for Geriatric Sector B, mainly West Belfast, postal districts 10, 11 and 12. On the other hand, general medical emergency admissions are shared between the Belfast hospitals on time based criteria. This results in the Belfast City Hospital accepting all emergency medical admissions from the Greater Belfast Area on Sunday, Wednesday and Friday of each week. Hence, on these days, elderly patients requiring emergency admission come to the Belfast City Hospital even if their homes are outside the parts of Belfast served by the Geriatric Medical Unit of this hospital.

A system was started in which all patients requiring emergency medical admission who were over the age of 75 and whose homes were in Geriatric Sectors A and B, were admitted direct from the Casualty Department to the Geriatric Medical Unit. The criteria for admission were the same as those for admission to the general medical wards. For practical reasons, patients were admitted directly from the Casualty Department during the day, but at night and week-ends they were admitted to the general medical ward and transferred to the Geriatric Medical Unit the following day. The only exceptions were patients who were too ill for transfer. The number, diagnosis and fate of all the admissions from this source in 1977 were recorded. The system started with the Friday take-in on December 1976, the Sunday take-in was included in April 1977, and the Wednesday take-in November 1977.

RESULTS

In 1977 there were 128 emergency admissions via the Casualty Department. In the same year 424 patients were admitted direct from home or transferred from other wards or hospitals. The fate of the patients coming from the two sources of admission is shown in Table 1. The mortality of those admitted as

TABLE 1
Fate of Patients Admitted to Geriatric Medical Unit, 1977

Fate	Admissions			
	via casualty		by other routes	
	No	%	No	%
Total number	128	—	424	—
Discharged	66	51.6	215	50.7
Deaths	45	35.0	81	19.1
Continuing care	10	7.8	63	14.9

emergencies is predictably higher but the number of patients requiring continuing hospital care is much less. The figures, of course, are not comparable as the planned admissions are a selected group of elderly patients.

The average age of the 128 patients was 81.4 years with a range of 75 - 94, and 62.5 per cent were female. The age and sex distribution and the fate in relation to age are shown in Table 2. Apart from the very small number of patients over 90 years old, there is, as expected, a trend towards a higher proportion of deaths and requirement for continuing care in the older age groups.

TABLE 2

Fate of Emergency Admissions in Relation to Age

Age	No. (no. females)	Discharges		Deaths		Continuing Care	
		No	%	No	%	No	%
75 - 79	49(28)	24	49.0	16	32.7	3	6.1
80 - 84	45(30)	25	55.6	14	31.1	4	8.9
85 - 89	28(18)	12	42.9	13	46.4	3	10.7
90 - 94	6(4)	5	83.3	1	16.7	0	0

The major diagnosis at the time of admission is shown in Table 3. The one

TABLE 3

The Most Common Diagnoses on Admission

Diagnosis	Males		Females	
	No	%	No	%
Respiratory Disease	20	41.7	22	27.5
Cardiovascular Disease	9	18.8	15	18.8
Stroke	11	22.9	13	16.3
GIT Disease	1	2.1	6	7.5
Anaemia	1	2.1	6	7.5

most important diagnosis was chosen for each patient, and the five most common diagnoses are shown in the table. The commonest diagnosis was respiratory disease, usually bronchopneumonia or an infective exacerbation of chronic obstructive airways disease. Cardiovascular disease and cerebrovascular disease were also common reasons for admission. There was no difference in the average age of patients in the various diagnostic categories.

The fate of the patients admitted with different diagnoses is shown in Table 4. The mortality was highest in the patients with cerebrovascular disease and these patients also provided the highest proportion of patients requiring continuing hospital care. The average length of stay of all patients was 40.7 days. There

TABLE 4

Fate and Length of Stay in Relation to Diagnosis

Disease	Discharges		Deaths		Continuing care		Average length of stay (days)		
	No	%	No	%	No	%	total	dis- charges	deaths
Respiratory disease (42)	19	45.2	17	40.5	3	7.1	36.4	41.3	12.3
Cardiovascular disease (24)	13	54.2	10	41.7	0	0	24.4	21.1	27.7
Stroke (24)	7	29.0	12	50.0	4	16.7	56.1	28.5	24.5
GIT disease (7)	5	71.4	1	14.3	1	14.3	42.1	9.8	28.0
Anaemia (7)	5	71.4	2	28.6	0	0	21.7	26.4	10.0

were no important differences in length of stay of patients in the different diagnostic categories.

DISCUSSION

It is notable that the majority of elderly patients who have severe enough illnesses to require emergency admission to hospital are able to return home again. There is, nevertheless, a fairly high mortality. However, the proportion of patients requiring continuing hospital care for a prolonged period is small.

Admission via the casualty department accounted for 23 per cent of total admissions to the geriatric medical unit. This is in contrast to the 90 per cent emergency admission rate in the general medical wards of the Belfast City Hospital (Grant, 1975). The length of stay of the patients is considerably longer than that of patients admitted to the general medical wards. The average length of stay of our patients was 40.7 days whereas the average length of stay of patients in general medical wards is between 11 and 14 days. However, the figures for admissions to the Geriatric Medical Unit are weighted by a relatively small number of patients who spend a long time in hospital. Nevertheless, it is one of the features of medicine in the elderly that recovery is slower, rehabilitation is more prolonged and length of stay in hospital is increased.

It was unexpected that such a large proportion of admissions should be due to respiratory disease. It is sometimes suggested that severe respiratory disease is a disease of middle aged adults and that chronic respiratory disease is incompatible with survival to advanced age. This is clearly not the case. It seems that measures to prevent respiratory disease, such as discouraging smoking and avoiding industrial exposure to air pollution will have beneficial effects in the elderly as well as patients in other age groups.

After the scheme in the Belfast City Hospital had started a paper appeared describing a comprehensive geriatric medical service in Hull (Bagnall et al, 1977). The principles used were similar to those in the Belfast City Hospital. The geriatric department offered to admit directly all medical emergencies aged 75 or over. Additionally the unit undertook to readmit any patient previously treated by it and those patients of 74 and below whose circumstances made it likely that they would benefit from their first treatment being in the department. As in the Belfast City Hospital, non-transfer of patients within the geriatric medical unit was the policy and commitments for long-term care and intermittent admission for social and holiday relief were maintained within the same admission wards. The results for a much larger number of patients are very similar to those reported in this paper. Of these admissions 28 per cent were aged 75 - 79, 28 per cent between 80 and 84, 19 per cent between 85 and 90, and 10 per cent over 90. The average duration of stay was 30 days but 80 per cent of all admissions were emergencies. Only 1.8 per cent of all admissions remained in hospital for six months or more.

A comprehensive system of care for the elderly sick is a logical way of developing geriatric medicine. The age limit of 75 years is arbitrary and was chosen mainly because of the availability of resources. However, in practice it

proved to be a good indicator of need for the specialized care of the geriatric medical unit. This is supported by the fact that in the Belfast City Hospital requests for transfer from other medical wards have been negligible since the direct admission scheme was introduced. As the over seventy-fives are the section of the population which is going to increase in number most rapidly in the next decade it seems reasonable to concentrate the resources of geriatric medicine on this age group. Further development of this system in Belfast is hindered by the present system of general medical emergency admissions. A geographically based medical admission system would make possible much closer cooperation between the general medical and the geriatric medical services. Such cooperation is essential if the increasing numbers of elderly sick are to be properly managed in hospital.

We thank Dr. J. A. C. Ball for permission to include his patients in this survey and the physicians of the Belfast City Hospital for their co-operation in this scheme.

REFERENCES

- ADAMS, G. F. (1969). Review of Geriatric Services in Northern Ireland Hospitals. A report to the Northern Ireland Hospitals Authority.
- BAGNALL, W. E., DATTA, S. R., KNOX, J. and HORROCKS, P. (1977). Geriatric medicine in Hull: a comprehensive service. *British Medical Journal*, **2**, 102.
- GRANT, A. P. (1975). A preliminary examination of general medical admissions to Belfast hospitals in 1973. *Ulster Medical Journal*, **44**, 62.

Address for correspondence :

Professor R. W. Stout, Department of Geriatric Medicine, Whitla Medical Building, 97 Lisburn Road, Belfast BT9 7BL.

ERRATA

“Nosocomial Rotavirus Gastroenteritis in a Neonatal Nursery” by J. F. T. Glasgow, B. G. McClure, J. H. Connolly and H. J. O’Neill. This volume (47) pages 50-56.

In this article the authors’ legend of Table II was omitted. The maximum number of cots in each of the six cubicles was indicated by the number in brackets. Rd indicated a rotavirus infection with diarrhoea; R rotavirus infection with no diarrhoea; d diarrhoea without confirmation of a rotavirus infection. The dates gave the time of onset of illness or recovery of the virus.

On page 52 “Laboratory Studies” paragraph 2, line 16 ‘aggravated’ should read ‘aggregated’.
