The context and content of community hospital admissions

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SUMMARY. Hospital admissions from a general practice were studied for one year. One-third of all admissions were found to be to a community hospital. Those admitted were mainly elderly people. The majority of patients stayed in the community hospital only a short time and 69% of patients returned home on discharge. Social, nursing and medical factors determined admission and discharge. Social factors were found to be increasingly important as the age of patients increases while medical factors become less important.

Introduction

THERE have been few recent reports from community hospitals[1-7] but these show large differences between the hospitals,[8] reflecting local geography, history and the continuing evolution of the hospitals. Some have surgical or obstetric beds and some have beds for long-stay patients. There are currently 350 such hospitals in the National Health Service, contributing 3% of acute hospital beds,[8] and more are projected.[9] Patients with similar conditions are treated in district general hospitals in some areas and in community hospitals in others.[10]

This report describes a study of admissions to a community hospital over one year (1983–84). The community hospital is situated in a town of 3000 inhabitants and it also serves about 7000 people in the surrounding villages. The hospital has 34 beds and there are outpatient, casualty and physiotherapy departments. There is also a day centre at the hospital which provides rehabilitation and support for older patients and their carers. There are no longer surgical or obstetric beds and all admissions are regarded as being due to acute problems in the first instance, although some patients are found to require long-term care and in some cases care is shared between the family and the hospital. The medical staff at the hospital comprise nine general practitioners. The majority of admissions are from one practice which makes almost negligible calls upon geriatric, psychogeriatric and hospice beds elsewhere. The practice also has free access to teaching and district hospital services, and enjoys excellent support from district nursing services.

The reasons for admitting patients to hospital are usually formulated in medical terms, with social factors sometimes used to support the decision to admit. It is recognized that this order of priorities is not always appropriate. Kyle[11] and Clark and Mulholland[12] have analysed community hospital admissions by diagnoses while Oddie[13] analysed admissions by functional categories such as therapy, nursing and supervision. Kernich and Davies[14] have studied reasons for admission including acute illness (undefined), family relief, assessment and terminal care. The study reported here assessed the needs of patients for medical, nursing and social services when admitted to a community hospital.

For all admissions a general practitioner considered admission the preferred solution to his problem. Loudon[10] reviewed inpatients in a teaching hospital and observed that 16% of medical admissions might have been appropriately cared for in a community hospital and this figure rose to 29% for those over the age of 70 years. He also observed that nearly all cases were appropriately admitted rather than cared for at home. Currie and colleagues[15] reviewed elderly patients in acute medical wards. They concluded that between 30 and 40% of elderly patients could have been cared for at home with adequate resources. However, the admitting general practitioner presumably felt that these resources were not available.

In this study admissions to the community hospital were analysed by comparision with all admissions to district hospitals in the area; as part of all admissions from the study practice; by age and sex of patient, length of stay and disposal; and by the need for medical, nursing and social services at admission.

Method

Hospital admission statistics for South Warwickshire were provided by the Information Office of Warwick Hospital, and the Health Authority. Statistics for admissions to Oxfordshire hospitals were provided by the Oxford Record Linkage Study. Details of hospital admissions from the study practice were obtained from the practice day book. Details of the practice population are continuously maintained on an age–sex register held on computer. However, it was not possible to work from fully contemporary figures.

South Warwickshire hospital admission statistics relating to the study practice could only be obtained for 1984 and figures for Oxfordshire were obtained for the same period. The practice day book showed deficiencies and was upgraded for the period December 1984 to November 1985. The community hospital study ran from July 1983 to July 1984. There was no recognized change of policy in the practice over the two-and-a-half-year period July 1983 to November 1985.

Consecutive admissions to the community hospital for one year were scored as follows by the ward sister for the medical, nursing and social services provided: 2 (necessary service could not have been provided at home), 1 (contributory but not necessary) or 0 (not a significant factor determining admission).

Medical services included examination, investigation, observation and treatment, including physiotherapy, at levels which could not be achieved at home. Social services included protection from danger, for example falls, starvation, dehydration and cold, and the threatened or actual breakdown in care or independence. Nursing services included rehabilitation and continuous 24-hour attention, supervision and observation.

Results

In the study population of 8467 patients 13.8% were over 70 years of age (South Warwickshire — total population 216 944, 10.0% over 70 years), 13.5% were women aged 20–39 years (South Warwickshire 14.5%) and 11.2% were children aged 0–9 years (South Warwickshire 11.4%). These were the groups which showed raised incidences of hospital admission, particularly the elderly (Table 1). The study practice admits to several hospitals, including the only community hospital in South Warwickshire.

Of a total of 790 admissions from the study practice 33.2% were to the community hospital. The overall incidence of admissions to hospital from the study practice was 93.3 per 1000 patients per annum. This compares with an incidence of 103.6 from South Warwickshire to South Warkwickshire hospitals.

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Table 1. Number of admissions to hospitals from the study practice and incidence of admissions per 1000 population in that age group for the period December 1984 to November 1985.

Age (years)	Sex	Total popn	Number of admissions (incidence) Community hospital	District hospital	District general hospital	Private hospital	Total	% of all admissions
0–9	Females	433	0 (0)	19 (44)	6 (14)	0 (0)	25 (58)	*7.0*
	Males	513	0 (0)	21 (41)	8 (16)	1 (2)	30 (59)	
10–19	Females	523	3 (6)	20 (38)	0 (0)	0 (0)	23 (44)	*4.1*
	Males	521	0 (0)	7 (13)	2 (4)	0 (0)	9 (17)	
20–29	Females	502	1 (2)	62 (124)	0 (0)	0 (0)	63 (125)	*9.2*
	Males	526	0 (0)	7 (13)	2 (4)	0 (0)	9 (17)	
30–39	Females	640	1 (2)	53 (83)	12 (19)	1 (2)	67 (105)	*9.7*
	Males	620	0 (0)	6 (10)	3 (5)	0 (0)	9 (15)	
40–49	Females	488	3 (6)	29 (59)	4 (8)	2 (4)	38 (78)	*5.5*
	Males	516	(0)	4 (8)	1 (2)	0 (0)	5 (10)	
50–59	Females	507	3 (6)	31 (61)	3 (6)	0 (0)	37 (73)	*10.3*
	Males	491	2 (4)	19 (39)	23 (47)	0 (0)	44 (90)	
60–69	Females	547	13 (24)	34 (62)	3 (6)	0 (0)	50 (91)	*11.5*
	Males	472	9 (19)	23 (49)	6 (13)	2 (4)	40 (85)	
70–79	Females	460	76 (165)	22 (48)	3 (7)	1 (2)	102 (222)	*22.6*
	Males	346	29 (84)	40 (116)	6 (17)	0 (0)	75 (217)	
80–89	Females	204	67 (328)	16 (78)	1 (5)	0 (0)	84 (500)	*17.6*
	Males	111	39 (351)	14 (126)	1 (9)	0 (0)	54 (676)	
90+	Females	34	14 (412)	0 (0)	1 (29)	0 (0)	15 (441)	*2.4*
	Males	13	2 (154)	2 (154)	0 (0)	0 (0)	4 (308)	
Total	Females	4338	181 (42)	286 (66)	33 (8)	4 (1)	504 (116)	
	Males	4129	81 (20)	143 (35)	52 (13)	3 (1)	279 (68)	
% of all admissions			*33.5*	*54.8*	*10.9*	*0.9*	*100*	

Seven admissions were made to Part III social accommodation.

Attempts were made to check the accuracy of the information in the practice day book. For the study year (December 1984 to November 1985) 735 (93%) of the admissions were to hospitals who could identify admissions from the practice. However, these hospitals could only give figures for the 12 months of 1984 during which time 683 admissions were from the practice. This suggests that few if any omissions occurred in the practice day book.

Examination of admissions to the community hospital for one year, July 1983 to July 1984, revealed that of a total of 306 admissions 228 (74.5%) were from the study practice. The majority of those admitted were elderly patients. The incidence of admissions from the study practice rose rapidly with increasing age after the age of 50 years, doubling every six years (Table 2).

Table 2. Admissions from the study practice to the community hospital for one year for patients over 50 years of age and the incidence of admissions per 1000 population in that age group.

Age (years)	Total popn		Number of admissions		Incidence	
	Females	Males	Females	Males	Females	Males
50–54	233	256	2	4	9	16
55–59	273	233	4	2	15	9
60–64	297	255	8	4	27	16
65–69	242	203	4	6	17	30
70–74	238	192	23	8	97	42
75–79	195	139	24	22	123	158
80–84	134	79	24	21	179	266
85–89	68	23	27	14	397	609
90–94	18	7	14	5	778	714
95+	12	6	5	0	417	0

Regression coefficient = 0.97 (males), 0.96 (females).

The mean stay in the community hospital was 28.5 days, the mean turnover interval 4.0 days and the mean bed occupancy 87.8%. The majority of patients stayed only a short time and only a few stayed for a long time — 50% of patients were discharged within seven days, 10% stayed more than 260 days. Discharges were largely to the patient's home (69%) or by death (20%) — not an unexpected figure since terminal care is one function of the hospital.

The proportion of partients for whom medical, nursing and social needs were regarded as 'necessary' factors for admission was very similar. Neither medical nor nursing services were 'necessary' for one-fifth of admissions (Table 3). The provision of services to subgroups of patients may be presented as a percentage of total possible need — 100% indicates that all patients in that subgroup require a service. Medical services were needed less as patients increased in age, social services were needed more and nursing services were needed at a constant level (Table 4). The small number of patients aged 0–49 years formed an extremely heterogeneous group and included patients with multiple sclerosis, sequel of subarachnoid haemorrhage, failing to cope with house and family in pregnancy, no fixed abode and duodenal ulcer.

Table 3. Medical, nursing and social needs at admission by necessary, contributory or non-contributory factors ($n = 306$).

Factor	Score	Number (%) of patients requiring service: Medical	Nursing	Social
Necessary	2	136 (*44.4*)	133 (*43.5*)	124 (*40.5*)
Contributory	1	78 (*25.5*)	132 (*43.1*)	84 (*27.5*)
Non-contributory	0	92 (*30.1*)	41 (*13.4*)	98 (*32.0*)

58 patients (19%) scored less than two for both medical and nursing services.

Table 4. Provision of medical, nursing and social services as a percentage of the possible provision by age and sex of patients (total $n = 306$).

	Number of patients		% of possible provision of service					
			Medical		Nursing		Social	
Age (years)	Females	Males	Females	Males	Females	Males	Females	Males
0–49	4	10	*75*	*85*	*88*	*55*	*50*	*25*
50–59	6	6	*83*	*100*	*33*	*83*	*33*	*0*
60–69	16	10	*66*	*50*	*47*	*65*	*25*	*50*
70–79	55	38	*73*	*63*	*72*	*68*	*39*	*46*
89–89	78	41	*44*	*55*	*65*	*55*	*65*	*70*
90+	36	6	*31*	*67*	*54*	*83*	*69*	*42*
Total	195	111	*53*	*63*	*63*	*64*	*55*	*50*

Discussion

This study suggests that access to community hospital beds by general practitioners can provide appropriate care for a large proportion of admissions without increasing the overall level of admissions when compared with neighbouring South Warwickshire practices, whose proportion of elderly patients is less than in the study practice. It sustains the observation that family and community services in part define the incidence of admissions, and that the elderly progressively fail to cope.

This study may be considered as an extension of the much larger study of Loudon.[10] Some patients in costly high technology hospitals may have needs which can be appropriately met in community hospital beds, while some patients in community hospitals may have needs that can be appropriately met in nursing or residential homes.

Loudon attributed 13% of bed occupancy to delayed discharge, commenting on the difficulties of value judgements across intraprofessional boundaries — fit to go home, but to what home? This need not be so for the community hospital as the same doctor is responsible for the patient both within and without the hospital and the same is true on admission. Admitting a patient to a district hospital is a different matter. The general practitioner must make a case in medical terms to doctors whose concepts do not necessarily include the important interaction between medical and social factors in ill health.

Cavanagh[16] studied general practitioner access to hospital beds in North America. He observed, 'At its best in North America such integration produces some of the finest possible medical care.' The integration was the contact and discussion with specialists. The author's own observation in Canada and the USA would support that view for hospital medicine but not for primary care in the community. Primary and secondary care are not necessarily in conflict, but conflict arises from their competing calls on resources. A philosophy is needed that transcends or unites these differences. The community ward offers a focus where that philosophy may be developed and fostered.

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