PAPERS

Elderly patients discharged from an accident and emergency department—their dependency and support

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SUMMARY

One hundred elderly patients who had attended an accident and emergency department and had been discharged were visited at home shortly afterwards. Compared to their previous level of function, 52 showed a minor or major increase in dependency, usually related to trauma. Scrutiny of accident and emergency records showed only scanty documentation of dependency, function and support arrangements. Available statutory services for dependent elderly in the community were under-utilized by these patients. In 39 of the 52 cases with increased dependency relatives had provided additional support.

INTRODUCTION

As the population ages, the elderly form an increasing proportion of the patients in accident and emergency departments. In a sample year Brooks *et al.* (unpublished data) found that 17% of attenders at the Accident and Emergency Department of the Royal Infirmary, Edinburgh were over 65. Although only 21% of attenders under the age of 65 were admitted, this figure rose to 52% for over-65s, and 58% for over-80s.

It follows that just under half of the elderly patients attending are discharged, either directly by accident and emergency staff or following a specialist referral. Considerable anxieties and uncertainties often surround the discharge of frail elderly patients, because of uncertainties about mental function, postural stability, dependency, support and the availability of help should a further crisis arise.

A pilot study late in 1983, in which the main findings were a high incidence of

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increased dependency and relatively little in the way of support from the statutory community services, led to this more detailed study being undertaken.

METHOD

The patients in the study had all attended the accident and emergency department and subsequently been discharged home. All were aged 70 years or older. All had addresses in south Edinburgh.

The permission of the general practitioner with whom the patient was registered was obtained. The patients were visited at home on the day following discharge or as soon as possible. A *pro forma* covering demographic data, previous level of function and support, level of function and support at the time of visit, services supplied and additional services applicable was completed for each patient (Fig. 1). The series of cases studied was made up of three samples, each consisting of consecutively discharged patients, from the months January, February and March. A total of 101 patients were sought. In only one instance did it prove impossible to find the patient.

RESULTS

Demographic data

Table 1 The expected preponderance of elderly females

	Age-Sex					Total
	70-74	75-79	80-84	85-90	90 +	
Male	14	8	4	4	0	30
Female	31	19	12	6	2	70

Table 2 Types of housing occupied

Ordinary housing	91
Sheltered housing	4
Old people's homes	3
Other	2

Table 3 Living arrangements

Alone	50
With spouse	30
With other relatives	15
With unrelated persons	5

Table 4 The source of referral

By general practitioner	40
After 999 call	21
Self-referral	31
Other	8

Table 5 Reason for attendance

Trauma	72
Other	28

Changes in dependency

A total of 52 reported increased dependency. This was further defined. Twenty-two reported loss of previous outdoor activities (e.g. shopping). Twenty-eight reported loss of previous indoor activities such as cooking and housework. In the more standard 'activities of daily living' there was also a significant incidence of increased dependency. Fifteen patients now required help with dressing. Five now required assistance with transferring (bed to chair, chair to commode, etc.). Five now required assistance with walking and 10 had a new requirement for a walking aid. Four patients had suffered diminished continence, most commonly associated with diminished mobility.

Accident and emergency records

The accident and emergency records of the 100 patients were examined. In only 13 cases was there any record made of function other than range of movement at a joint. Support arrangements, e.g. 'lives with fit wife' were recorded in only 17 cases. Mental status was mentioned in five cases, usually in a form such as 'not a good historian'.

Referral to the accident and emergency department social worker was recorded in nine cases. These referrals, where they had been made, seemed appropriate. However, many equally dependent or precarious patients had not been so referred.

Additional community services provided

A few patients had had additional services provided following their accident and emergency attendance. In some instances this had been done on the initiative of the accident and emergency social worker. Seven patients received new or additional home help. One was referred to the District Nursing Service. One received meals on wheels. No patients were referred for domiciliary physiotherapy.

A & E Study

SERIAL NUMBER
NAME
ADDRESS
D.O.B.
SEX

AGE IN YEARS
1.M 2.F

VISIT AFTER
DISCHARGE

Visited 1 Unfindable 2 Refused 3

☐

PATIENT'S
HOME

ordinary house 1 sheltered house 2
Part IV 3 Hostel 4
Hospital 5 Nursing Home 6
Other 7 (N.A.=9)

☐

MARITAL STATE

M 1 S 2 W 3 D 4 (N.A.=9)

☐

LIVES

Alone 1 with spouse 2
with relatives 3 with other(s) 4
 (N.A.=9)

☐

REFERRED BY

Self 1 G.P. 2
999 3 Other 4

☐

PROBLEM

Trauma 1 Urgent Ix 2
? Admission 3 Other 4

☐

CHANGE IN
DEPENDENCY

No 1 Yes 2

☐

DEPENDENCY

Independent 1 Help 2
Dependent 3 (N.A.=9)

BEFORE

Walk	
Transfer	
Dress	
Toilet	
Wash	
Feed	
Continent	

AFTER

Walk	
Transfer	
Dress	
Toilet	
Wash	
Feed	
Continent	

SERVICES	<u>BEFORE</u>	Relatives	No visit 0 visit 1	
		Lives with relatives	3	
		H.H. No 0	Yes 1	
		D.N. No 0	Yes 1	
		MOW No 0	Yes 1	
		D.H. No 0	Yes 1	
		Physio No 0	Yes 1	
Walking Aid	None 0	Stick 1 >Stick 2	WC 3	
SERVICES	<u>AFTER</u>	Relatives	No visit 0 visit 1 Visit/s increased 2 Lives with relatives 3 Lives with relatives who now do more 4 Moved to live with relative after disch 5	
		H.H. No 0	Yes 1 Incr 2	
		D.N. No 0	Yes 1 Incr 2	
		MOW No 0	Yes 1 Incr 2	
		D.H. No 0	Yes 1 Incr 2	
		Physio No 0	Yes 1 Incr 2	
Walking Aid	None 0	Stick 1 >Stick 2	WC 3	
SERVICES	<u>APPLICABLE</u>	H.H. No 0	Yes 1	
		D.N. No 0	Yes 1	
		MOW No 0	Yes 1	
		D.H. No 0	Yes 1	
		Physio No 0	Yes 1	
Walking Aid	None 0	Stick 1 >Stick 2	WC 3	
		Other		
ACTION BY INVESTIGATOR	None 0 Refer A & E 2	Telephone GP 1 Other 3 (N.A.=9)		☐
Discharge was:-	appropriate 1 inappropriate 3	doubtful 2		☐
POSSIBLE ALTERNATIVE ACTION	Bed bureau 1 Other OPD 4 Other 6	GP care 2 MOPD 3 Geriatric assess 5 Action taken correct 7		☐

SUMMARY & COMMENT

Fig. 1 Pro forma for elderly patients discharged from an accident and emergency department.

Additional community services needed but not provided

It is recognized that figures in relation to this are 'soft' data. However, because of the high incidence of loss of the ability to cook and do housework, together with the high number of elderly patients living alone, it is certain that home help and meals on wheels could have been more widely used. Twenty-five patients would have benefitted from home help, perhaps five from meals on wheels. District nurse input, whether for assistance with bathing or for wound dressing, would have been applicable in 11 instances, often avoiding difficult, expensive and time-consuming return visits to clinic. Seven patients appeared to be in a position to benefit from domiciliary physiotherapy, most frequently for mobilization or provision of a walking aid following a soft tissue injury which none the less resulted in impaired mobility.

Contribution of relatives

This was the most illuminating finding in the study. Of the 52 patients with increased dependency, 39 received additional help in various forms from their relatives. In three cases, relatives not in regular contact started to visit. In 16 cases relatives who visited regularly visited more often. Thirteen patients lived with relatives already, and received more help because of increased dependency. In seven instances patients had been moved to stay with relatives, or relatives had moved in to stay with patients.

Admissions

At least six of the patients were admitted within 10 days of discharge. Others may have been, but were not known to the investigators. Two required further general medical investigation. One was Case 2 described below, the other a 73-year-old lady with a year's history of weight loss and gradually diminishing mobility. She was investigated with inconclusive results, but appeared to have a paraneoplastic polyneuropathy.

Two patients required admission because of trauma-related dependency. Both were previously impaired. One was a depressed widow with ischaemic heart disease and cardiac failure. Following a Potts fracture she failed to manage at home despite prior discussion and arrangements for increased support. An elderly hemiplegic who had sustained a fractured neck of humerus became far too dependent to live at home, despite family support.

A severely demented single lady, living alone, without any community services and not registered with any general practitioner, was discharged following accident and emergency assessment after a 'funny turn'. The accident and emergency social worker visiting her shortly afterwards found her lying unconscious on the floor. She was admitted to a medical unit with a left hemiparesis. She recovered sufficiently to graduate to an old people's home where she now lives. Another frail, demented lady recently discharged from a medical unit, was seen in accident and emergency and discharged with a diagnosis of fractured ribs. She was managing very precariously at

home, and would have been suitable for an old people's home. However, no place was available and she returned to the accident and emergency department shortly afterwards, being admitted to a medical ward where she languishes at the time of writing, awaiting her place in an old people's home.

Case examples

Brief case histories of four consecutive patients will serve to illustrate the diversity of cases encountered.

- Case 1 A 71-year-old single lady, active and fully independent, sustained an undisplaced Colles' fracture. This had gone undiagnosed for 2 weeks during which she had managed all her usual activities. She continued to do so after conventional management by immobilization in a plaster cast.
- Case 2 A 92-year-old widow who lived with her son was sent in by her general practitioner as possibly suffering from a deep venous thrombosis. Admission was requested. A diagnosis of superficial thrombophlebitis was made in the accident and emergency department and the patient was discharged home. When visited, she was obviously unwell although there had been no change in her dependency. She was pale and breathless at rest. Her haemoglobin was found to be 6g/dl. Admission was arranged for investigation of anaemia. No cause was found. The patient died a few weeks later. Post mortem failed to reveal a cause of the anaemia.
- Case 3 A 73-year-old divorcee, living with her sister, attended complaining of pain and stiffness in the left hand. There was a vague history of trauma some time before. No bruising or swelling was found. An X-ray showed minimum osteoarthritis and no bony injury. Her right hand was prosthetic, an important finding of which there was no record in the accident and emergency department notes. An apparently trivial attendance was thus explained.
- Case 4 An 82-year-old man was seen in accident and emergency following a fall in which he had injured his left thumb. No bony damage was seen, but the patient was referred the following day to a hand clinic, where a volar plate injury was diagnosed and the thumb immobilized in a plaster of paris spica. When visited at home, he was quite anxious. His wife, also aged over 80, who had sustained a CVA some weeks before, had just been discharged from hospital. She had a severe right hemiparesis with dysphasia. She could not dress or walk unassisted. Although the husband was independent, the dependency of the wife upon him was a major factor in the management of the case. After a telephone conversation, the GP arranged home help and meals in order to maintain the old lady at home.

DISCUSSION

Although the discharge of elderly patients may be a source of considerable concern and anxiety to accident and emergency staff, there appears to have been little systematic study of it. This simple descriptive exercise documents a high incidence of increased dependency related to the effects of trauma or its management. (Immobilization of an upper limb for the management of a minor fracture can be more incapacitating than the fracture itself.) It is perhaps understandable that in an accident and emergency department, where trauma is seen mainly in terms of tissue damage and its management, the functional consequences of trauma-related pain and immobility may not be a primary concern. Elderly patients' function appears to be considered mainly in terms of whether or not the patients can go home, rather than in terms of what problems

they would face and how they might cope if they did so. The various community services which may serve to substitute for lost function are not utilized to the full.

The functions most commonly lost, namely the ability to shop, cook and do housework, while inessential for an elderly person living with a fit spouse or relative may be crucial for an isolated old person living alone. Institution of appropriate services such as home help and meals on wheels, whether directly via a social worker or indirectly through the general practitioner, may render such discharges quite practical. This study, however, demonstrates that dependency is probably widely under-recognized in accident and emergency departments, and appropriate action following its recognition therefore frequently lacking. In this study, family support was a major factor in maintaining elderly and sometimes precarious old people at home following discharge. A systematic survey (Shanas *et al.*, 1968) has shown that the majority of old people living at home are in regular contact with offspring and other relatives. Relatives help in various ways, mainly with domestic support such as shopping, cooking and housework. With the more dependent patients, personal help in such matters as dressing, walking and toileting was often made available. In one instance a daughter undertook a task of 24-hour head injury observations.

Though they proved the most difficult cases to find, the patients who had been moved to stay with relatives following discharge were among the most interesting. Several were previously frail and mentally impaired. In all instances the move was regarded as temporary.

Mental impairment is common in elderly people, and causes particular difficulties in accident and emergency departments, where the credibility of perhaps the only source of information about support may be in doubt. Four of the patients visited had no record of their accident and emergency attendance. Mental impairment, as with physical dependency, appeared to be under-recognized, at least from examination of the accident and emergency notes.

This study was undertaken from the accident and emergency department of a large teaching hospital. The department is well staffed at the junior level and middle-grade supervision is close. Specialist advice is freely available, and an experienced social worker is assigned to the department. Difficult discharges can be discussed and appropriate action can be taken. The fact that a significant number of elderly patients discharged subsequently experienced difficulties cannot be attributed to any particular defect in staffing or organization. It seems likely that less fortunate departments would find similar problems encountered by their elderly discharges in similar or greater proportions.

The findings in this study suggest a further study which will shortly be undertaken. By agreement with the accident and emergency medical and nursing staff a simple *pro forma* will be completed on all elderly patients attending the department. This will consist of a questionnaire covering such points as mental function, availability of relatives, pre-existing support, likely areas of dependency, sources of additional support and action taken, whether communication or institution of services. By similar follow-up work on a series of elderly patients discharged from the accident and emergency department it will be possible to determine whether the systematic use of such a *pro forma* results in a diminution of the 'dependency-support gap'.

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REFERENCES

Shanas E. *et al.* (1968) *Old People in Three Industrial Societies*. London, Routledge & Kegan Paul.

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