

A comparative study of the injury profile of the elderly patients in an accident and emergency department

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SUMMARY

Four hundred and fifteen patients aged over 75 were compared with a comparable group of 351 below 75 adult attenders. The over 75s were referred by 999 call and general practitioners more frequently. They also suffered more fractures and multiple injuries. The implications of these different injury patterns for the accident service are discussed.

INTRODUCTION

It is well known that the so-called 'dependency groups' are one of the most frequent users of the facilities of the National Health and other support services (Illesley, 1981). The clinical characteristics and the needs of some of these 'dependency groups' are varied and different requiring specific targeted measures by the health care professionals (Maitra, 1984). The elderly are one of the important socially dependent groups because of 'biological malfunctioning' (Illesley, 1981) and their special needs merit an organized and structured response. This is especially important in view of the projected rise in the over 65 population in the country estimated to be from 14.9% to 20.4% in the year 2040 (Coni, 1988).

A prospective study was undertaken to compare the injury profile of patients above 75 with that of the average adult attender aged between 16 and 74, comment on any differences between these two age groups, and their implications on the accident and emergency services.

METHODS

During a 6-month period between August 1987 and March 1988, 415 patients over 75 attended the Accident and Emergency Department of the Royal Victoria Infirmary as a result of accidental injury. The demographic and clinical details of these patients were compared with the randomly selected group of patients aged between 16 and 74 who also attended the department between the same period following accidental injuries. None of the patients in either group were admitted for in-patient treatment.

RESULTS

Table 1 shows the demographic details. The difference in sex distribution correlates well with the sex distribution in the general population and is therefore not significant. There was no difference in the pattern of attendance, majority of patients in both groups attending between so-called social hours and within 24 h of injury. However, a significantly increased number of patients over 75 years were referred as a result of 999 calls and by general practitioners ($P < 0.0001$). The majority of the patients in the controlled group were self-referrals.

Table 2 shows the clinical details. The upper limb, head and neck and lower limb were almost equally injured in both groups. The frequency of lacerations and abrasions was also comparable but the over 75 group sustained significantly more fractures ($P < 0.0001$) and more multiple injuries ($P < 0.005$).

Table 1 Distribution of demographic factors

	Over 75 (<i>n</i> = 415)	16-74 (<i>n</i> = 351)
Mean age	81.6 years	33.8 years
SD	6.2 years	15.1 years
Female	73.3%	35.6%
Male	26.7%	64.4%
<i>Attending between:</i>		
0900-1700 hrs	290 (72.2%)	230 (65.5%)
within 24 h	353 (85.1%)	313 (89.2%)
<i>Referred by:</i>		
999	211 (40.2%)*	28 (8.0%)
General practitioner	162 (30.9%)*	29 (8.3%)

* $P < 0.0001$

Table 2 Distribution of clinical factors

	Over 75 (n = 415)	16-74 (n = 351)
<i>Site of injury:</i>		
Upper limb	147 (35.4%)	153 (43.6%)
Head and neck	117 (28.1%)	75 (21.4%)
Lower limb	102 (24.7%)	97 (27.6%)
<i>Type of injury:</i>		
Fractures	105 (25.3%)†	48 (13.7%)
Lacerations	105 (25.3%)	73 (20.8%)
Abrasions	91 (21.9%)	85 (24.2%)
2 separate injuries	71 (17.1%)†	23 (6.0%)
3 or more injuries	18 (4.4%)*	4 (1.2%)

* $P < 0.005$ † $P < 0.0001$

DISCUSSION

It has been recognized that the dependency of the elderly patient is increased following an attendance at the accident and emergency (A&E) department (Currie *et al.*, 1984). Rowland *et al.* (in press) have recently suggested that additional information about these patients are obtained so as to identify those patients who are particularly vulnerable to increased dependency after their A&E attendance. Although it was recognized that a greater proportion of the over 75 age group would be excluded from the study by only considering those discharged from the department, the aim of the study was to compare two out-patient groups.

The present study illustrates a pattern of patient referral of increased use of the 999 call and the general practitioner which is probably reflective of the greater isolation and decreased mobility of the over 75's. While fractures may be expected to be more common in the population of elderly patients, predominantly female, it is surprising how often more than one site is injured.

Ideally efforts to reduce morbidity in this age group would be aimed at prevention, which places the emphasis on the relatives and the support services. Judging from the data presented here, the elderly are more likely to suffer from serious injury than the general population thus increasing their dependence on outside help. The A&E departments need to be sensitive to these special features in organizing their workload as well as taking into account that many of these elderly will need short-term admission following treatment of their fractures and injuries and are more likely to have a delayed recovery increasing their period of follow-up. The A&E doctors would also need to establish a closer liaison with the physicians in charge of the care of the elderly and the general practitioners. In this way, we will be able to offer a comprehensive hospital and community-based service, without overstretching the capacity of the present A & E departments.

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