Are we falling at the first hurdle? Estimating under-recording of falls in Accident and Emergency

Jyoti Atri, R. Nicholas Pugh and David Bowden

Abstract

Background Accident and Emergency (A&E) is the first port of call for most people who have experienced an injurious fall. This provides the potential for identifying patients who may benefit from preventative interventions. This study aims to estimate the percentage of falls attendances that are not recorded on computerised A&E records.

Methods A retrospective cohort study design was used to study patients attending A&E with falls related injuries.

Results The survey revealed poor recording of falls with 38 per cent (95 per cent CI ± 8.82 per cent) of patient reported falls not recorded on computerised A&E records. More than half of those reporting a fall as the reason for attendance at A&E, reported previous falls, with 21 per cent reporting subsequent falls.

Conclusions A&E could play an important role in secondary falls prevention. Improving recording of falls in A&E is an essential prerequisite.

Keywords: falls, accident and emergency, prevention, under-recording

Introduction

Falls in the elderly is a major public health issue. Falls often result in significant consequences for the individuals, their families, health services and society.1,2 The societal consequences of falls are likely to grow in importance as the population ages. The National Service Framework for Older People sets out the objectives for falls:

“to reduce the number of falls which result in serious injury and ensure effective treatment and rehabilitation for those who have fallen”3

The potential for Accident and Emergency (A&E) to contribute towards meeting this objective is great, being the first port of call for most people with injurious falls. Attendance at A&E with an injurious fall and experience of multiple falls are both strong indicators of need, and predictors of further falls. Research indicates that interventions received by fallers identified through A&E are effective.4,7 However, the key role that A&E could play in reducing the burden of falls remains largely unrealized. A&E referral for secondary falls prevention first requires fallers to be identified. This study aims to provide an estimate of falls under-recording on computerized A&E records in one urban A&E department.

Methods

A retrospective cohort study design was employed. Local ethics committee approval was granted. A list of locally specific A&E codes was drawn up, based on the available literature and discussions with staff, to reflect the most common falls related injuries. All patients with such injuries aged 50 years and over, attending Walsall Manor A&E department in the year 2002, with a recording of the predefined codes were selected. Patients with recordings of road traffic accidents or assaults were excluded. Electronic A&E records of the remaining selected patients were searched for the presence of the words: fall, falls, fell, fallen, collapse, or collapsed in free text.

A telephone survey was conducted with a random sample of 250 of the selected patients [postal questionnaires were sent to people whose phone numbers were not available or were unobtainable (36), patients who were hard of hearing (4) or at patient’s own request (3)]. General practitioners’ screening of the identified patients resulted in the exclusion of patients due to death (23), cognitive impairment8 (6) or other reasons (10) including recent bereavement or leaving the practice. Respondents were asked: if a fall was the cause of their first or only visit to A&E in 2002; if they had experienced
previous or subsequent falls and whether these falls led them to A&E.

**Results**

There were 4153 patients aged 50 years and over who attended A&E with the agreed falls related injuries, of whom 1933 had a fall recorded in free text, in their A&E record. Based on respondents’ self-reporting of falls (Fig. 1), there were 1576 (95 per cent CI 3132–3865) estimated additional falls in patients attending A&E. Of the 84 patients reporting a fall as their reason for attending A&E, 50 (59 per cent) also reported at least one previous fall (which may or may not have caused injury), 23 (26 per cent) reported more than one previous fall. Subsequent falls were reported by 19 (23 per cent) of those reporting attendance at A&E because of a fall.

Analysis by sex shows that 59/76 (77 per cent) of female responders, reported that a fall was the reason for their first or

![Diagram](http://jpubhealth.oxfordjournals.org/)
only visit to A&E. Of these 30 (51 per cent) did not have an A&E record of a fall. There were 25/44 (56.8 per cent) males who responded, self-reporting a fall, 18 (71 per cent) of them did not have an A&E record of a fall.

Discussion
The high attendance at A&E for falls, coupled with considerable under-recording, suggests a substantial burden of disease and unmet need. The high reporting of multiple falls, both previous and subsequent, further demonstrates the potential of this group to benefit from secondary falls prevention. Fewer subsequent falls were reported than previous falls due to the short time lag between their falls related attendance at A&E and completion of the questionnaire and also due to reduced mobility experienced by many respondents after their fall.

Women were much more likely to report a fall, as the cause of their first or only visit to A&E, than men. However men reporting falls were considerably less likely than women, to have a recording of a fall. This is likely to be due to staff perceptions of fallers. Educational programmes or guidelines need to address this issue in order to avoid gender inequalities in referral patterns.

Traditionally the role of A&E departments has been necessarily reactive. However A&E have a key role to play in meeting the objectives laid out in the NSF for Older People. Attendance at A&E is often the first and only contact with health services for people with injurious falls. A&E departments need to play a more proactive role in falls prevention in order to reduce the burden of disease for both individuals and health services. Initially this will be resource intensive and require cultural and organisation changes. However, in the long run, preventing falls should result in a reduced workload in A&E as a high proportion of attendances at A&E can be attributed to falls in the elderly.

The identification and recording of falls in A&E is an essential first step in reducing the burden of falls, followed by appropriate referral to secondary falls prevention services.

Acknowledgements
We thank Miriam Woodman for her advice on this study.

References