Chapter 3:
Presentations To The Emergency Department

3.1 Introduction

There are few reports detailing the problem of falls in the elderly Australian population in terms of presentations to the Emergency Department despite the fact that falls reportedly make up around 14-18% of the presenting problems of the elderly (16). Bell, Talbot-Stern and Hennessey reported a six month study of elderly presentations of falls to a Sydney Emergency Department. Most of those presenting lived in their own homes and just under half had previously fallen. 70.5% of patients sustained an injury as a result of the fall, the most common injures being fractures (36%), soft tissue injuries (16%) and lacerations / skin tears (14.5%) (16). Of these injured patients, 57.2% required hospital admission, representing 38% of the elderly admissions during the study period. Fallers had a mean length of stay of 10.4 days and a median stay of 6 days (range 1-129 days). 35% of patients were hospitalised for more than 10 days. 4.4% of patients died during their admission, half of these were over 85 years of age and half lived in nursing homes. Therefore this represented the extremes in terms of age and disability. One of the most important factors associated with death was hip fracture (12, 13, 16).

The largest proportion of falls occurs in the individuals own home (6, 10, 16). Once an elderly person has had one unexplained fall they are at a significantly greater risk of subsequent falls (16). A prior history of falling is an intrinsic risk factor for further falls, increasing the risk of a further fall in the next twelve months by two and a half times (6). In addition, despite the potential for injury to occur secondary to falls, the incidence of falls is frequently under-reported by the elderly patient (8). Therefore, the opportunity arises to identify, assess and refer people who have fallen for intervention and follow-up at the time of presentation to the Emergency Department.

The presentation of an elderly patient to the Emergency Department is frequently a sentinel event, as the culmination of risk factors often produces a serious or life-threatening condition (75). Commonly, management of elderly individuals presenting to the Emergency Department focuses upon treatment of their injuries, rather than providing a systematic evaluation of the underlying causative factors, functional consequences and potentially required primary / secondary prevention strategies (9). These patients however, represent an accessible, high-risk group that is most often receptive to intervention offered during presentation to acute care providers (9, 75).

Whilst around 30% of elderly patients will be admitted to hospital following a presentation for falling, the remaining 70% will be discharged back into the community (11). It is these patients that are all too often lost to follow-up or not adequately referred for outpatient and community assessment and intervention. It is acknowledged that new dependency develops in approximately half of all elderly individuals following a fall, necessitating referral for specialist assessment, intervention and follow-up programs (9, 19, 68).

3.2 Patients Requiring Acute Care Admission

Patients who require acute care admission for treatment of injuries or associated medical problems must not be permitted to pass through the system without being assessed for risk of future falls.

It is here that discharge planning should include early assessment of the patient's functional, social and physical needs to ensure referral to appropriate outpatient and community services for both ongoing care and follow-up assessment.

GUIDELINE

Referrals of people admitted to hospital with fall should be made to a coordinated multidisciplinary team, who can provide focussed, individualised interventions. This first contact should be made prior to discharge from hospital.

Level I evidence

3.3 Initial Assessment and Treatment

Treatment of people who fall requires the prompt management of any acute injury. The cause of the fall and predisposing risk factors for falls and injury also needs to be investigated. It is poignant to remember that in the elderly population the treatment of falls related injury is not only managing the outcome of the fall, but involves the many complex medical conditions, psycho-social issues and adaptation problems inherent in the elderly patient (2, 5, 12, 13).

Falls are not a natural phenomenon that occurs as part of the aging process, but rather a symptom of an underlying medical condition, medication effect or environmental hazard (8). The most common intrinsic factors related to Emergency Department presentations are gait disturbances, syncope, central nervous system lesions, postural hypotension and dizziness (16). Very few falls in the elderly population are truly accidental, with no significant precipitating factor (8).

Reversible medical and surgical factors should therefore be managed following accurate assessment and diagnosis. This treatment however requires multiple staged investigations and intervention with long-term follow up. Rehabilitative interventions and environmental changes are also often required.

GUIDELINE

An education program should be undertaken by Emergency Department staff on the importance of the assessment, investigation and treatment of falls in the elderly.

Level IV evidence

3.4 Screening Tools For The Emergency Department

Carson and Cook assert that as a minimum standard, all elderly patients who have experienced a recent fall will be assessed using a falls prediction tool (10). Rubenstein et al., claims that 95% of problems related to falls can be elicited from the patient history and physical examination alone (76). This finding was confirmed by Close et al. who found that 17% of patients presenting to the Emergency Department following a fall had one or more cardiovascular / circulatory disorders, 59% had visual impairment, 28% had decreased leg power and 72% had diminished balance (9). Kiel advocates that physical examination should focus upon diseases affecting postural stability, sensory input, central processing, and effector responses (13).

Depending on the injuries sustained and the background medical / surgical problems the patient is either:

- admitted to hospital under a team able to instigate the multidisciplinary falls assessment / treatment
- admitted to hospital under a team where this process will not occur
- discharged home to be assessed by a ACAT team with a potential focus on falls
- discharged home with no falls follow up.

However due to the nature of Emergency Department work-flows and staffing, it is currently not possible to complete an adequately detailed assessment, perform one of the detailed screening processes, and plan and coordinate a multidisciplinary falls assessment / treatment. Despite this, patients presenting to the Emergency Departments are high-risk patients who are most likely to benefit from the multifaceted and multidisciplinary strategies that have been shown to be efficacious in many trials.

An effective screening tool which is comprehensive, sensitive, reliable, concise and clearly formatted may assist in the assessment and intervention process, regardless of the severity of the initial injuries sustained. The literature describes a plethora of risk assessment tools purported to be suitable for assessing falls risk in the elderly. Evaluation of these tools reveals that many are either too lengthy or cumbersome for implementation in the acute clinical setting, whilst others are less than comprehensive. One effective study used a tool in their methodology (9). Baraff et al., however, reports on the lack of effect of practise guidelines implemented in emergency (77).

The problems inherent in creating a screening tool are clearly apparent (19). The initial assessment conducted within the Emergency Department is not intended to be all-inclusive, but simply to identify those who require referral, intervention and follow-up thus minimising the risk of subsequent falls and injury. A pilot tool has recently been developed for the South Western Area Health Service to assist with these procedures (See Appendix B). It is recommended that this screening tool be further developed to assist emergency department staff in the identification of those at risk of falls.

GUIDELINE

Emergency staff should be educated about the importance of identification of older persons who have fallen and those at risk of falls.

Level II evidence

3.5 Action After Completion Of The Screening Tool

Once the screening tool is completed, adequate access to coordinated multidisciplinary assessment and treatment is imperative. The value of the screening tool is that it may assist in stratifying the urgency and types of interventions required for elderly patients presenting to the Emergency Department, including the need for multidisciplinary interventions. In addition, the tool may assist in determining whether people require admission to hospital or can be discharged home.

Denman et al., reported that 20% of the elderly patients followed up after discharge from the Emergency Department had worse medical outcomes at three weeks. Between 6-29% of patients discharged from the Emergency Department can be classified as early readmissions (recidivists) (5, 17, 68). More frequent recidivism was noted in those aged 75 years and over (5). Most of these patients require subsequent hospital admission due to a decline in functional capacity that prohibits them from being independent at home (2, 17, 19, 68). The tool should therefore identify those at risk of poor outcomes as well as link patients to appropriate services.

Ideally this link would be in the form of a formalised referral pathway for those patients assessed with the screening tool. The aim should be to provide more appropriate and timely access to multidisciplinary programs that have been shown to benefit the elderly falls patient. This referral pathway may need to be individualised for the multidisciplinary services developed across SWSAHS and the sectors. There should however be equity and accessibility to these services regardless of the sector.

Once the patient has been referred to a falls service, the assessment and treatment should be similar to patients referred from different health providers. However it needs to be acknowledged that the patient presenting to the Emergency Department after a fall is at high risk and should be triaged within the system accordingly.

GUIDELINES

Formalised referral pathways to multidisciplinary teams and General Practitioners need to be established for patients who have fallen.

Level III-2 evidence

3.6 Interventions Prior To Discharge From The Emergency Department

Elderly people discharged home directly from the Emergency Department are known to be a vulnerable sub-group (68, 78), although there is limited knowledge of their long term outcomes (2). Those who are provided with appropriate levels of support and intervention have been demonstrated to achieve better independence and functional recovery than those who receive no special referral services (68).

Despite this apparent obvious need, there has been surprisingly little research undertaken in terms of discharge planning from Emergency Departments (68). The available research suggests that there is currently an underestimation of the need for social support and an under-utilisation of available referral mechanisms to address functional problems faced by the elderly (9, 18). Functional decline at the time of presentation is the best predictor of poor outcomes such as representations to hospital (2, 19, 68).

GUIDELINE

Emergency Departments should have ready access to individual components of the multidisciplinary team members, (physiotherapy, occupational therapy, geriatric services, discharge planning) prior to discharge. These services assist in identifying new self-care and functional deficits, as well as social needs in order to minimise problems immediately post-discharge.

Level II evidence

3.7 Patients Discharged Home

There has been one well conducted randomised trial of a falls prevention program implemented on people discharged from emergency. Close targeted older people presenting to emergency with a high incidence of prior falls, but who had only minimal functional impairment after a fall. The intervention consisted of a detailed medical and occupational therapy assessment with referral to relevant services including a day hospital if required. The intervention group had 183 falls in the next 12 months compared with 510 in the controls ($p=0.0002$) with a significant reduction in the risk of falls (odds ratio 0.39[CI 0.23-0.66]), and the risk of recurrent falls (0.33 [0.16-0.68]). Long term follow up revealed a statistically significant decline in function in the control group (9).

GUIDELINE

Elderly patients with falls discharged home from the Emergency Department require follow up by a multidisciplinary team.

Level II evidence

3.8 Role Of The General Practitioner

Continuity of care with primary health providers has been found to contribute to reduced admissions and a higher level of satisfaction amongst the elderly (5). The Emergency Department functions as a vital interface between acute and community based health providers (2). In their study of elderly patients discharged from the Emergency Department, Rowland et al. found that although the General Practitioners of 96% of patients were aware that their patient had attended the Emergency Department, only 33% of patients had been visited by the General Practitioner post-discharge (all but 3 visits were at the patients request) (19). This finding serves to highlight the need for General Practitioners to become actively involved in routine patient follow-up. Whilst in this study the General Practitioner was aware of the presentation there was no coordinated plan for follow-up consultation.

It is in such circumstances that gains can be made by bringing together primary health and emergency / acute care services as well as multidisciplinary teams to coordinate assessment, thus identifying the need for support services and the implementation of focused intervention programs (18, 19, 68).

GUIDELINE

Elderly patients discharged home from the Emergency Department require referral back to their General Practitioner for ongoing coordination of care.

Level III-2 evidence

3.9 Specialist Multidisciplinary Assessment And Interventions

Whilst assessment of falls risk should be carried out on all elderly patients presenting to the Emergency Department, those with intrinsic factors predisposing them to falls, benefit from multidisciplinary assessment and interventions. Such assessment can assist in prioritising the importance of individual risk factors and facilitating specialist intervention and follow-up.

A variety of falls prevention programs have been reported in the literature. The efficacy of these programs in actually reducing the numbers of falls has been analysed in several reviews and meta-analyses (6, 24, 63, 79-81). From these analyses it is possible to conclude that a multi-faceted approach, where interventions are targeted at both the intrinsic and extrinsic factors placing the patient at risk of falling is the most effective strategy. It has been demonstrated that modification of risk factors can reduce the incidence of falls (9, 15, 38), prevent hospitalisation (9) and reduce length of hospital stay (16). Therefore, it is recommended that management plans be multidisciplinary and tailored to meet the risk factors of the individual (9).

In their study to determine the effectiveness of implementing a geriatric consultation team in the Emergency Department, Gold and Bergman determined that of the 70 consultations they made, 87% were either admitted to the geriatric ward or followed up by the community geriatric team.

In this study the consultation team prevented many inappropriate hospitalisations and invoked the optimal use of community based resources to provide the most appropriate patient care (3). There is significant literature demonstrating the benefits of comprehensive multidisciplinary geriatric assessments in targeted elderly patients identified in hospital. Positive outcomes have included improvements in mortality rates, morbidity, length of hospital stay, nursing home placement, quality of life, medication utilisation, diagnostic accuracy, and mental and functional status (76). A review of the literature on inpatient geriatric consultation reported improved patient care, decreased use of health care resources, and increased identification of new diagnoses (82). Although there is extensive evidence on the benefits of geriatric interventions in elderly individuals identified from a range of other settings, there are limited studies investigating the effectiveness of interventions when people are identified from the Emergency Department. Despite the lack of studies based in Emergency Departments, better health outcomes should eventuate by early identification and management of health problems that may result in an elderly person falling.

3.10 Conclusion

Advances in preventing falls injury can be made by identifying those at risk of falling. Elderly patients presenting to the Emergency Department are often experiencing an acute medical, psychological or social event that overlays the complex nature of their wellbeing. At this time they are often receptive to thorough assessment and implementation of interventions that can assist in the reduction of future falls risk. To achieve this however, it is essential that there is a coordinated approach to assessment, referral to specialist services, and follow-up to ensure the effectiveness of interventions.