How to Assess Patients Admitted with 'Falls'

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Abstract

Many Medical Admission Units admit patients who have suffered a fall. Falls are incredibly common, yet often assessed and managed suboptimally in hospitals. Falls may be due to an acute illness, or due to a combination of factors which can be identified and managed in order to reduce the risk of falling in the future. A true 'mechanical fall' in an older person is rare.

Keywords

Fall, multifactorial, vision, get-up-and-go test, medicines, multidisciplinary team.

Introduction

All staff who work in a Medical Admissions Unit are familiar with patients who are admitted following a fall. Many are not trained in the assessment and management of such a common condition. There is a perception that falls are accidental, a fact that is not borne out by statistics.[1] In fact, most falls occur due to diseases.

A joint statement from the Royal College of Physicians of London and the British Geriatrics Society sums this up perfectly:

'…older people with serious medical problems do not present in a textbook fashion, but with falls, confusion, immobility…yet are perceived as a failure to cope or in need of social care. This misconception that an older person's health needs are social leads to a prosthetic approach, replacing those tasks they cannot do themselves rather than making a medical diagnosis. Thus the opportunity for treatment and rehabilitation is lost, a major criticism of some current services for older people…Failure to attempt to assess [older] people's problems as medical is unacceptable'.[2]

This article will briefly cover the epidemiology of falls, why preventing falls is a Government priority, the main reasons why older people fall, what interventions make a difference and the recent NICE guidelines on management of falls.

Background

Falls are common. Several studies in America and Europe have shown that around one third of over-65's experience one or more falls each year.[3] This is higher for people living in institutions or in hospital. Around half of all falls occur in the home, during routine activities of daily living, with no obvious hazard.[4]

Children and young adults may also fall, but the consequences are less severe in terms of morbidity, mortality and cost to the NHS and social services. Falls are the leading cause of admission to hospital due to an injury in the over-65's.[3] In the elderly, the consequences of falls include loss of confidence, loss of independence and fractures. After a fall, half of older people report a fear of falls, and one quarter limit their activities because of this.[5] Falls are a common reason for admission to care homes.

Although only 5% of falls result in fracture,[6] the cost of these fractures to the NHS is £1.7 billion each year.[7] In recent years, research has shown that multifactorial interventions can reduce the incidence of falls and, in theory, their complications. Preventing falls has therefore become a national priority, one of the standards in the National Service Framework for Older People[8] and the subject of NICE guidance.[9]

Clinical assessment

Falls may be categorised into three broad groups:

- Fall due to acute illness
- A single 'true' mechanical (ie accidental) fall
- Recurrent falls

Falls due to acute illness

Almost any acute illness can present with a fall in an older person. The most common is infection, but others include acute coronary syndromes, haemorrhage and metabolic disturbances such as hyponatraemia and hyper or hypoglycaemia. Any older person presenting with a fall should be screened for an acute illness with a thorough history and examination (including measurement of all the vital signs). Since older people commonly do not have a fever or raised white cell count in infection, a very useful test in older patients admitted to hospital with a fall is the CRP (C-reactive protein). Remember that it is common for elderly women to have bacteruria and a positive urine dipstick does not necessarily mean there is a urinary tract infection.

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'True' mechanical falls

True mechanical (ie accidental) falls in the elderly are rare. Occasionally the clinician will come across a biologically young older person who has slipped on the ice and broken her wrist. There is no definition of a 'mechanical fall', a label that usually represents diagnostic laziness, which should be avoided.

Recurrent falls

A more common scenario is an older person who has fallen before. A recent audit in our department found 26 patients over a three day period admitted on account of recurrent falls – ie an entire ward out of 5 in the Care of the Elderly department! Recurrent falls are nearly always multifactorial in aetiology so that multifactorial interventions are beneficial.[10]

A multifactorial risk assessment in a patient with recurrent falls should always include the following:

- Falls history
- Medication history
- AMTS (abbreviated mental test score)
- Vision assessment
- 'Get-up-and-go' test
- Neurological examination
- Cardiovascular examination (including lying and standing BP and 12-lead ECG)
- Consideration of bone protection
- Physiotherapy assessment
- Occupational therapy assessment

Patients should also be asked about alcohol intake, continence and the psychological impact of their falls.

Falls history

A falls history is important. Dizziness commonly leads to falls and can be treated. There are three main types of dizziness:

- Light-headedness on standing, often due to postural hypotension
- Vertigo (a sensation of movement), due to central or peripheral vestibular problems
- 'Fuzzy all the time', often due to diffuse cerebrovascular disease or medication

It is not uncommon for older patients to have more than one type of dizziness. It is important to note that all older patients have a degree of cervical spondylosis, which does not cause dizziness. Vertebrobasilar insufficiency, as a cause of vertigo with no other neurological symptoms, is extemely rare.[11] Benign positional vertigo is a diagnosis which is commonly missed and easily treated. Older patients with vertigo should be referred to a geriatrician or ENT surgeon with an interest in dizziness.

If a patient is unaware of what happens when they fall, this may be due to cognitive impairment (a risk factor for falls in itself). There is also a grey area between falls and syncope. Approximately one third of older patients who lose consciousness after carotid sinus massage deny they have done so immediately afterwards. The incidence of epilepsy is now highest in the elderly[12], and this diagnosis is also often overlooked.

Vision, medicines and 'get-up-and-go'

Following a falls history, the three most important interventions which a doctor can undertake to prevent further falls are: to assess the patient's vision (for acuity and cataracts) and refer if necessary; to reduce cardiac and psychiatric medicines which may be contributing to falls (especially vasodilators) and to perform the 'get-up-and-go'-test. Visual problems are common in the elderly; bifocal use increases the likelihood of falls.

The 'get-up-and-go' test is a simple screening test for gait and balance abnormalities. The patient is asked to rise from a chair (without using his arms if possible), walk three metres, turn around and sit down again. The test can be done with assistance if necessary. In the Leeds falls clinic, typical diagnoses that are suspected by watching the patient walk include:

- Undiagnosed stroke
- Peripheral neuropathy
- Parkinsonism
- Arthritis
- Cerebellar or vestibular problems
- Foot drop
- Cervical myelopathy and cord compression

Finally, patients should be asked about risk factors for osteoporosis and treated for this if necessary. Any woman over the age of 65 with a previous fragility fracture has a diagnosis of osteoporosis without the need for any tests, and should be started on a bisphosphonate and calcium/vitamin D tablets. Other patients can be screened on the history and referred for bone densitrometry if needed.

Unexplained falls

When the 'get-up-and-go' test is normal and no obvious other cause for falls can be identified, the fall may be considered 'unexplained'. An eye-witness should be sought if possible, as seizures can present as 'falls' in the elderly. Otherwise, the patient should be investigated for syncope.

In the SAFE PACE study,[13] older people attending an Accident & Emergency department because of falls were screened for carotid sinus hypersensitivity. Of those that were diagnosed as having cardioinhibitory carotid sinus hypersensitivity (the most common type), half were randomised to receive a dual chamber pacemaker and half to receive usual falls care. There was a two-thirds reduction in falls (without loss of consciousness) in the paced group, suggesting a strong association between falls and carotid sinus hypersensitivity. Therefore older patients with recurrent unexplained falls should be considered for carotid sinus massage, a test that is properly performed in a setting which has the facility to do the test upright as well as supine.

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Interventions

Assessing an older patient with recurrent falls takes the same amount of time as a normal 'clerk-in' – and saves a lot of time in the long run. Patients with recurrent falls should not spend a long time in hospital having unnecessary tests. It is helpful to come up with a list of medical risk factors, which can then be tackled in turn (Figure 1). The patient should be referred to physiotherapy and occupational therapy. A clear plan should then be communicated to the patient's GP, care home or community services.

Dealing with falls is a multidisciplinary task, which is amply illustrated by the results of a study produced in 1999. The PROFET Trial[14] looked at elderly fallers presenting to the Emergency Department in a major London hospital and assigned them to 'usual' care or a detailed medical and occupational therapy assessment with onward referral to relevant services if appropriate. There was a significant reduction in risk of further falls in the intervention group

According to the NICE guidelines,[9] all older people who come into contact with a health professional should be asked how many times they have fallen in the past 12 months. People who have had more than one fall should be offered a basic assessment and referred to a specialist falls service if necessary. This includes patients who are picked up by Paramedics at home, or seen in Accident & Emergency departments. Each locality should have a single falls pathway which includes primary care, A&E, orthopaedics, medicine/care of the elderly and a specialist multidisciplinary falls service. Trusts are audited against these standards.

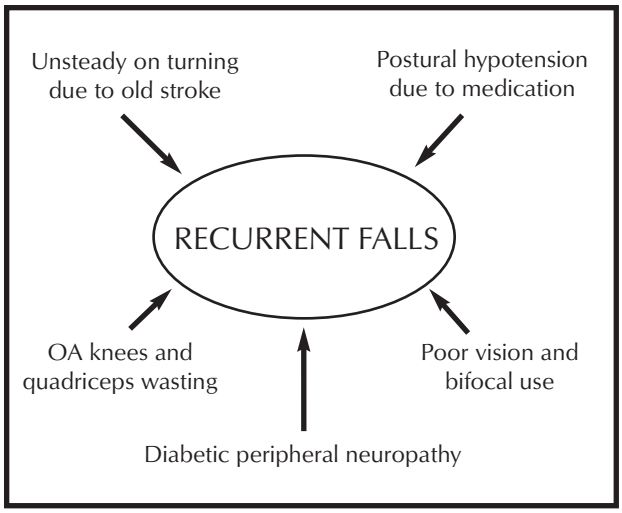


Figure 1. A typical medical assessment of a patient with recurrent falls

Conclusions

Falls may be a marker of serious underlying pathology or reflect a complex interplay between a patient's environment and disabilities. The patient who falls requires careful and intelligent assessment in order to tailor investigations and minimise hospital stay. In many cases it is community based services –properly directed- that can have the most significant impact on the patient's physical and psychological wellbeing.

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