

Red flags in geriatrics: diagnoses not to be missed in acute units

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This article will address some common, easily overlooked clinical indicators of serious illness in frail older people presenting to medical admission units. 'Frailty' is a widely used clinical term that implies a state of vulnerability. There is still much to learn about the clinical syndrome of frailty, but the consensus is that the phenotype consists of weakness, weight loss, slow walking, fatigue and low levels of activity.¹ A common mistake is to equate frailty with thinness. Abraham Weintraub, as the oldest finisher of the London Marathon, is thin, but frail he is not!

The molecular and physiological underpinnings of frailty are far less well understood but lead to a situation in which relatively minor perturbations result in non-specific ill health or disproportionate functional consequences – typically a fall or an episode of delirium. These clinical syndromes can perplex even experienced physicians. Initial assessments can be imprecise, with terms such as 'collapse, ?cause' or 'confusion, ?dementia' and should be regarded as red

flags, a warning that there is a potential for missed treatable illness.

Paraphrasing a useful reflective question advocated by Bernard Isaacs, one of the great masters of geriatric medicine, is to ask 'Do you *know* your patient, who he is and who he was?'.² If the answer is 'No', another red flag is present, again foretelling the threat of misdiagnosis. In this situation, Isaacs advocated a corroborating history from a close supporter or a friend.

Delirium

Consider the patient in Box 1. Patients like Mr Jones are often characterised in terms of 'a confused elderly man'. This intellectually lazy term is a red flag and dangerous because it tends to close down clinical thinking. Mr Jones has delirium. A positive recognition of the disorder is more likely to stimulate the clinical detective work needed to identify precipitants. Studies have shown that this common and serious condition is missed in about a half of all cases. We need to do better because a missed diagnosis is associated with a much increased risk of poor clinical outcomes. Awareness of the cardinal features of delirium will improve detection, but these features are likely to be recognised only when the possibility of the diagnosis is being considered.³

- recent onset of fluctuating awareness
- impairment of memory and attention span
- disorganised thinking.

The hyperactive form of delirium, with its heightened psychomotor features, is readily identified. It is the com-

moner, sometimes more subtle, hypoactive form (Box 1) that is easily overlooked. The red flags appear innocuous when reported by carers as 'a bit sleepy', 'off his food', 'not himself' or 'a bit confused'.

Distinguishing between delirium and dementia

One common clinical dilemma is the distinction between delirium and dementia. Delirium is acute or subacute, dementia is chronic. The two may coexist: dementia is a risk factor for delirium. It is wise to assume that all older people presenting acutely with confusion have delirium until proved otherwise. Thus, all patients should undergo:⁴

- a corroborating history from a close supporter, with particular emphasis on illness onset and fluctuations
- a brief cognitive assessment, such as the four item abbreviated mental test score (age, date of birth, place, year)
- a thorough search for common delirium precipitants (infections, organ failure, dehydration, constipation, medications).

Dehydration and constipation

Frail older people have multiple risk factors for dehydration, including impaired thirst sensation, age-related renal tubular dysfunction, reduced fluid intake and effects of some medications. Dehydration is a risk factor for delirium in older people.^{4,5} Prompt detection and correction are therefore important. It is a sad truth that there is more literature relating to pulmonary capillary wedge pressure measurement than to the bedside detection of dehydration in frail older people. The well described physical signs for dehydration are absent or misleading in

Key Points

Detection of treatable conditions in frail older people is clinically challenging

Frequently missed diagnoses include syncope, delirium, depression and dehydration

Clinical clues are usually present that can act as red flags to improve the detection rates for these common conditions

KEY WORDS: acute illness, assessment, frailty, older people

Box 1. Case example.

Mr Jones is an 84-year-old man with a history of mild dementia and stable chronic heart failure. He is brought into casualty by his wife who is upset because he is 'not himself'. He has been intermittently sleepy and confused in conversation and uncharacteristically incontinent of urine.

older people,⁵ though axillary dryness can be a useful sign. Frail older people often have sedentary lifestyles, with considerable time spent sitting. Many therefore may have observable dependent oedema; lack of oedema implies dehydration – all the more likely if they are on a diuretic and have had a few days of poor fluid intake.

Dehydration and constipation are commonly interrelated and coexist in frail older people. Constipation leads to a patient being ‘off food and drink,’ and therefore to dehydration that begets constipation – and so on. Constipation is present in over a third of acute medical admissions of older people, often deceptively so with an empty rectum but high loading detected either by deep abdominal palpation or, in a selected minority, by plain abdominal X-ray. In this situation, there may be paradoxical diarrhoea caused by faecal impaction and irritation of colonic mucosa. Constipation can be further complicated by urinary retention. Ill, frail older people with constipation should be considered for a bladder scan.

Falls

There are nearly 650,000 falls-related emergency department attendances in the UK for older people each year,⁶ about half of whom are likely to fall again within a year. Reliable evidence that between a quarter and one-third of falls in older people can be prevented⁷ has led to a new approach to falls based on a multidisciplinary assessment to detect and ameliorate risk factors for falls.⁸

Transient loss of consciousness

The medical contribution to this assessment in the emergency care setting includes the critical step of determining whether the fall has occurred through transient loss of consciousness. Failure to explore this fully at the time of the initial presentation when memories are fresh can result in a missed opportunity to diagnose syncope (neurogenic, cardiogenic or orthostatic) or epilepsy – both eminently treatable conditions. Reliable detection of transient loss of conscious-

ness is harder than suggested in the idealised world of literature reviews^{9,10} because many older people will deny loss of awareness when asked as they have amnesia for the event. Commonly, they create a plausible story of slipping or tripping to plug their memory gap. Loss of awareness is less likely if there is a strong recollection of striking the ground, and more likely if there is evidence of falling without the usual protective reflexes (ie presence of head or facial bruising, or broken spectacles). Absence of post-event confusion has been identified as the most important factor discriminating syncope from epilepsy.¹¹ Corroborating evidence from an observer should always be pursued with vigour.

Measurement of gait

It would be regarded as unacceptable if there was no measurement of temperature, pulse rate and blood pressure for an acutely unwell person. Similarly, it is unacceptable for older people presenting following a fall not to have a routine assessment of gait. The ‘Get Up and Go’ test has been well researched, is quick and simple. The patient sits in a chair and is asked to stand, walk three metres (using usual walking aid if relevant), turn round and sit down again. Many older people after a fall, particularly if they have been unable to get off the floor (prolonged lie), will be fearful of further falls. This is readily apparent during the test, manifesting as an apprehensive, hesitant gait pattern and impaired balance. Such patients are at high risk of further falls and/or not coping at home and require urgent referral to a rehabilitation service.

Depression

Ill health problems in late life are not packaged in neat boxes. Physical and psychiatric illnesses are commonly intertwined. Studies have shown prevalence rates for depression of 25–50% in older medical inpatients and that depression is underrecognised, undertreated, delays recovery and has poor outcomes. Depression in older people is just as treatable as in younger people,¹² and is a

condition for which treatment offers the possibility of transforming their life.¹³

The first red flag for unsuspected depression is when the patient thinks or says ‘What should I expect with my degree of poor health?’ and should be linked with some reflective questions:

- Is the medical condition relatively stable, yet there are *new* complaints?
- Does the person appear more functionally restricted than anticipated by their physical illness?
- Are they not progressing as expected?
- Is the language used extreme (‘terrible’, ‘unbearable’)?

Fatigue at rest is much more likely to be due to depression than physical disease, which is usually improved by rest.

The patients should be listened to for expressions of poor self-esteem, guilt, worthlessness, suicidal ideation, all of them symptoms of depression at any age. Anhedonia, the inability to experience pleasure, is not a symptom of old age *per se*.

Detection of depression can also be improved by routine screening – a reasonable approach for a condition with a high prevalence. The National Institute for Health and Clinical Excellence recommends asking two questions:¹⁴

- During the last month, have you often been bothered by feeling down, depressed or hopeless?
- During the last month, have you often been bothered by having little interest or pleasure in doing things?

Conclusions

Frail older people are not ideal patients for the often hard-pressed setting of medical assessment units. It can be tempting to focus predominantly on the treatment or exclusion of life-threatening conditions. Recognition of the common red flags described above will significantly improve outcomes for frail older people.

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Inappropriate polypharmacy: reducing the burden of multiple medication

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Medication use increases with age. About 57% of dispensed prescriptions are given to those over 60 years of age¹ who constitute only 19% of the population.² In 2003, those aged over 60 were dispensed an average of 35 prescriptions per head compared with 7.7 for those under 60.

Polypharmacy is the term used to describe multiple drug use by patients, although it has come to imply excessive or inappropriate prescribing.³ It commonly refers to patients taking four or more medications, although there is no formally accepted definition. Polypharmacy is relatively common in older people: the average number of medications taken increases by 0.4 for every 10 years of age, with about 20% of people aged over 70 taking five or more medications.⁴

A distinction needs to be made between appropriate and inappropriate polypharmacy. Many patients are, quite correctly, receiving multiple drug therapy for their multiple coexisting medical problems.

The National Service Framework (NSF) for Older People recommends

that older people undergo a regular medication review to reduce the complications associated with multiple drug therapy.⁵ Patients taking more than four medications should be reviewed six-monthly, those with four or less annually.

Inappropriate polypharmacy has cost implications for the health service. The total annual spending on prescription drugs in primary care in England is £8 billion – a 60% increase in the last decade.⁶ The cost of inappropriate medication has not been calculated, but the cost of drug wastage in primary care has been estimated at £100m.⁶ Therefore, there is increasing interest in ways to decrease the cost of unnecessary drugs.

How does polypharmacy occur?

Polypharmacy has a number of underlying causes (Table 1). Older patients often suffer from multiple medical problems, each requiring differing treatments from the ever-expanding list of available therapies. This group of patients has previously been under-represented in trials of new drugs but there is now an increasing evidence base for the use of some of the newer treatments in this population.^{7–10}

Patients can remain on the same treatment, sometimes unnecessarily, for some time if their treatment needs are not reviewed regularly. However, even when there is a drug review, it can be chal-

Table 1. Causes of polypharmacy.

May be appropriate	Usually/always inappropriate
Multiple medical problems	Multiple drug prescribers
Using further medication to treat ADRs (eg laxatives with opioids)	No regular medication review Using further medication to treat ADRs (eg analgesia for a drug-induced headache) Prescribing of drugs that are not indicated
ADR = adverse drug reaction.	