

# Frailty on the acute medical take

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## ABSTRACT

**Frailty is a prevalent condition in urgent care settings associated with an increased risk of adverse events. Frailty commonly presents on the acute medical take in the form of geriatric syndromes, which include falls, delirium and immobility. Comprehensive geriatric assessment is the evidence-based holistic approach to assessing and managing people with frailty. This multidimensional and interdisciplinary process is generally specialist led, however, acute medical teams can make important contributions through early identification and grading of frailty, and proactive management of geriatric syndromes.**

## Introduction

Frailty is an age-related condition, characterised by loss of biological reserves across multiple organ systems. In frailty, homeostatic mechanisms may fail in response to even minor stressors, rendering people vulnerable to a range of adverse outcomes, including disability, hospitalisation (with increased length of inpatient stay) and death.<sup>1,2</sup> The prevalence of frailty increases with age and, with the number of older adults expected to double worldwide between 2019 and 2050, we can expect an increasing number of people with frailty to present to urgent care services.<sup>3</sup> Frailty is a condition commonly encountered on the acute medical take: around one-third of patients in acute medical units (AMUs) are older people living with frailty.<sup>4</sup>

## How does frailty present on the acute medical take?

Isaacs previously described the ‘geriatric giants’ of immobility, instability (falls), impaired cognition (delirium) and incontinence. These four presentations (now considered as ‘geriatric syndromes’) remain highly relevant to clinical practice, alongside a more recently recognised fifth ‘giant’: susceptibility to the side effects of medication.<sup>5</sup> Geriatric syndromes are prevalent in older people with frailty and are a common reason for presentation to urgent care settings. They are multifactorial and, frequently, the main complaint does not represent the pathological condition that has precipitated the change in health; for example, a person presenting with a fall who has an underlying diagnosis of acute cholecystitis. In this way, geriatric syndromes present a challenge

to standard medical models of diagnosis and treatment that are focused on single organ problems; it is important that clinicians working in such systems remain open-minded and curious about the reasons behind a presentation to hospital, recognising that the cause could be a relatively minor stressor or an acute illness presenting in a non-typical way.<sup>6</sup>

Aside from geriatric syndromes, malaise, weakness and fatigue are common presenting problems in people with frailty, and may belie significant underlying pathology.<sup>7</sup> These non-specific complaints are frequently accompanied by a story of recent functional decline and a temptation by treating clinicians to declare the patient as suffering with ‘acopia’ or ‘requiring social admission’. These are harmful labels, which do nothing to help identify the stressors that have caused the crisis.

## Key points

Frailty is an age-related condition, characterised by loss of biological reserves across multiple organ systems. It is associated with an increased risk of adverse outcomes, including hospital-related harm.

Geriatric syndromes (including falls, immobility and delirium) are prevalent in older people with frailty and are a common reason for presentation to urgent care settings, including the acute medical take.

Identification and grading of frailty is an important first step in the management of older people with frailty on the acute medical take and the Clinical Frailty Scale is quick and easy to use for this purpose.

Older people with frailty who present to urgent care settings in crisis should be assessed and managed using a holistic approach known as comprehensive geriatric assessment.

Comprehensive geriatric assessment improves outcomes for older people with frailty who have been admitted to hospital. We need to redesign our urgent care systems to support delivery of this intervention at scale.

**KEYWORDS:** frailty, comprehensive geriatric assessment, acute medical take, geriatric syndromes

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## Falls

Falls are the commonest single reason for older people to present to urgent care.<sup>8</sup> When assessing an older person who has presented with a fall, there are three main considerations:

- > diagnosis and treatment of any traumatic injuries
- > identification and management of any causes or predisposing factors
- > prevention of complications from falls in the future (including reducing the risk of future falls).<sup>7</sup>

Although falls in older people are often multifactorial, it is important to specifically consider if there has been transient loss of consciousness.<sup>8</sup> This can be difficult, in the absence of witnesses, if the patient struggles to remember the event themselves, but features such as facial injury and an inability to remember hitting the floor are suggestive. Identification of syncope as a feature of a fall should prompt careful consideration of potential underlying causes, including hypotension, cardiac abnormalities and medications. Syncopal falls that have been caused by acute haemodynamic compromise are vital to identify early as they may pose a threat to life. Cardiac causes of syncope carry a far higher risk of mortality at 1 year when compared with other causes of syncope in people who are generally well.<sup>9</sup>

In non-syncopal falls, there may be a wide range of contributing factors: those intrinsic to the person, which increase propensity to fall and those arising from the environment. A detailed description of the approach to evaluating an older person with a fall is beyond the scope of this article, but there are some key questions that we suggest should be asked when assessing someone with a fall on the acute medical take.<sup>7,10</sup>

- > Is there evidence of acute illness?
- > Is there traumatic injury?
- > Is there postural hypotension?
- > Is there cognitive impairment?
- > Are there medications that may increase the risk of falling?
- > Is there sensory impairment?
- > Are there continence problems?
- > Is there a history of falls?

The completion of a multifactorial assessment usually requires a multidisciplinary team approach, which may take place within the setting of a specialist falls service.<sup>7,10</sup>

## Delirium

Delirium can cause significant complications for older people in urgent care settings, with increased risk of inpatient falls, prolonged hospital stays, institutionalisation and death.<sup>11,12</sup> It is a serious and under-recognised medical problem, prevalent in older hospital inpatients. Defined as 'an acute deterioration in mental functioning arising over hours or days that is triggered mainly by acute medical illness, surgery, trauma, or drugs', delirium is characterised by impaired attention, awareness and cognition.<sup>13</sup> There are recognised sub-types of hypoactive (most common and highest mortality), hyperactive and mixed delirium (Table 1).

Early recognition of delirium is critical so that precipitants can be identified and treated. The 4 'A's test (4AT) is a validated rapid clinical test for detecting delirium that can be used to assess older people who are admitted as an emergency, and its use is recommended by national guidance in the UK.<sup>12,13</sup>

**Table 1. Sub-types of delirium**

<b>Hypoactive</b>	Characterised by reduced motor activity, drowsiness and somnolence. People are withdrawn, and have a lack of interest in eating and drinking.
<b>Hyperactive</b>	Characterised by increased motor activity, agitation and restlessness. People may experience hallucinations or walk around seemingly without purpose. They may have insomnia.
<b>Mixed</b>	Delirium that fluctuates between hypoactive and hyperactive subtypes.

The PINCHME acronym (Table 2) is a helpful reminder of the common causes of delirium. Once contributing factors are identified (often multiple), the treatment of delirium rests on addressing the underlying causes and providing supportive care.<sup>14</sup> Patients with delirium who become agitated or distressed should be specifically assessed for potential causes of this.<sup>13</sup> Are they in urinary retention? Is there another source of pain? Are they hungry or thirsty? Agitation and/or distress should be treated using verbal and non-verbal de-escalation techniques and by addressing any suspected precipitants. If a person with delirium is considered a risk to themselves or others, or if they are suffering with intractable distress despite de-escalation techniques (or if de-escalation techniques are inappropriate),

**Table 2. The PINCHME acronym for identifying and managing potential causes of delirium**

<b>Pain</b>	Treat pain appropriately, and identify and manage the underlying cause of the pain.
<b>Infection</b>	Identify and treat infection only if it is present.
<b>Nutrition</b>	Encourage oral nutritional intake with foods that the patient enjoys, ideally high in calories. Weigh the patient and refer to a dietitian as appropriate.
<b>Constipation</b>	Constipation should be treated and preventative measures should be considered if prescribing opiates.
<b>Hydration</b>	Encourage hydration through oral routes, with a focus on 'little and often' if there is not a huge desire to drink. In some cases, intravenous hydration will be required.
<b>Medications</b>	Review medication and stop or reduce those that may be contributing to the delirium if it is safe to do so. There may be an opportunity to suspend non-essential medications, which can be helpful in promoting other oral intake if this is a priority. Consider use of STOPP/START criteria.
<b>Environment</b>	Use reorientation devices (such as clocks and calendars) and lighting that is appropriate to the time of day to promote natural sleep. Photographs of relatives and family visiting can promote a feeling of normality.

START = Screening Tool to Alert to Right Treatment; STOPP = Screening Tool of Older Persons' Prescriptions.

then short-term haloperidol may be considered as a treatment. It should be started at the lowest clinically appropriate dose and titrated cautiously according to symptoms.<sup>14</sup> Haloperidol comes with the risk of cardiac dysrhythmias and neurological sequelae that should be considered when prescribing, and it is contraindicated in people with Parkinson's disease or dementia with Lewy bodies.

### Assessment and management of frailty on the acute medical take

Early on in the process of assessing an older person there should be identification and grading of frailty. Until we *identify* frailty, we will not be able to mitigate the risks associated with it. Until we *grade* frailty, we will not be able to accurately assess someone's needs or their risks of hospital-related harm (which will be vastly different for people with mild frailty when compared with people with severe frailty).<sup>7</sup> In urgent care settings, we can use the Clinical Frailty Scale (CFS) for the purpose of identifying and grading frailty in people over the age of 65 years (Fig 1).<sup>7,12,15,16</sup> The CFS is widely used as a judgement-based tool to broadly stratify degrees of frailty by summarising information about a person's health status 2 weeks prior to presentation.<sup>16</sup> In England, the CFS is now included in the Emergency Care Data Set (the national data set for urgent and emergency care), meaning that a score must be entered for every person aged over 65 years presenting to hospital as an emergency. Routine and systematic identification of frailty in this way has the potential to transform our understanding of frailty in acute hospitals and drive improvement of services.

Comprehensive geriatric assessment (CGA) is the holistic assessment process that should underpin the approach to managing frailty once it has been identified in the urgent care setting (Fig 2).<sup>7</sup> CGA is multidimensional and interdisciplinary; this enables the bio-psycho-social elements of an individual's problems to be fully understood.<sup>17</sup> Importantly, the process then continues with the development of a person-centred management plan to tackle those problems, which also takes into account of the risks of

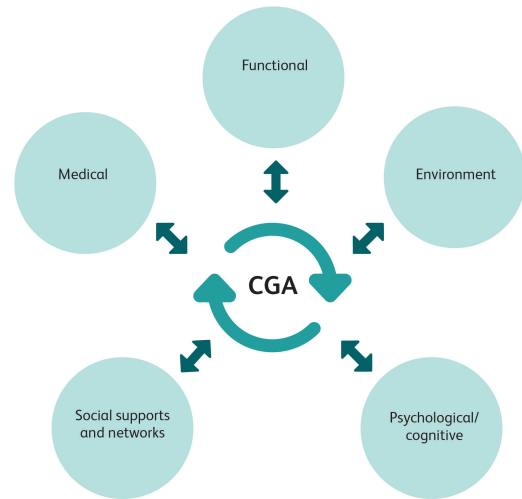


Fig 2. Comprehensive geriatric assessment (CGA).

intervention and over-medicalisation. CGA delivered by specialist services improves outcomes for older people with frailty who are admitted to hospital, increasing the chances that they will be alive and in their own homes at follow-up when compared with standard medical care.<sup>18</sup> How this care is delivered in urgent care settings will vary; there is no blueprint for how it should be done.

Broadly speaking there are two main service models:

- > delivery of CGA in a specialised unit, such as an acute frailty unit
- > geriatric liaison services, where people with expertise in the care of older people work alongside acute medical teams to support delivery of CGA in AMUs.

Local factors, including how the acute medical take is organised, the ward structure in the hospital and the skills within the workforce, will influence how a CGA approach 'fits in' alongside the acute medical take. In all cases, there should be the capability to initiate CGA on AMUs so that important decisions and actions are taken in a timely way. The Royal College of Physicians' *Acute care toolkit 3* provides recommendations on how this can be achieved within current systems.<sup>19</sup> However, if urgent care for older people is to be transformed so that it effectively and reliably meets the needs of the population, timely CGA will need to be delivered at a scale much greater than it is now. For this to happen, there will need to be a redesign of urgent care systems.<sup>20</sup>

### Conclusion

Frailty is a prevalent condition in urgent care settings associated with an increased risk of adverse events. It is characterised by depleted biological reserves and poor homeostatic responses to stressors, so that relatively minor insults have the ability to precipitate a crisis in health. Frailty commonly presents on the acute medical take in the form of geriatric syndromes, which include falls, delirium and immobility. Causes are often multifactorial, but acute illness must always be considered as this may not declare itself in a typical way. CGA is the evidence-based holistic approach to assessing and managing people with frailty in urgent care settings. This multidimensional and

### CLINICAL FRAILTY SCALE

	<b>1</b>	<b>VERY FIT</b>	People who are robust, active, energetic and motivated. They tend to exercise regularly and are among the fittest for their age.
	<b>2</b>	<b>FIT</b>	People who have no active disease symptoms but are less fit than category 1. Often, they exercise or are very active occasionally, e.g., seasonally.
	<b>3</b>	<b>MANAGING WELL</b>	People whose medical problems are well controlled, even if occasionally symptomatic, but often are not regularly active beyond routine walking.
	<b>4</b>	<b>LIVING WITH VERY MILD FRAILTY</b>	Previously "vulnerable", this category marks early transition from complete independence. While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slow up" and/or being tired during the day.
	<b>5</b>	<b>LIVING WITH MILD FRAILTY</b>	People who often have more evident slowing, and need help with high order instrumental activities of daily living (finances, transportation, heavy housework). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation, medications and begins to restrict light housework.

	<b>6</b>	<b>LIVING WITH MODERATE FRAILTY</b>	People who need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistance (cuing, standby) with dressing.
	<b>7</b>	<b>LIVING WITH SEVERE FRAILTY</b>	Completely dependent for personal care, from whatever cause (physical or cognitive). Even so, they seem stable and not at high risk of dying (within ~6 months).
	<b>8</b>	<b>LIVING WITH VERY SEVERE FRAILTY</b>	Completely dependent for personal care and approaching end of life. Typically, they could not recover even from a minor illness.
	<b>9</b>	<b>TERMINALLY ILL</b>	Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise living with severe frailty. (Many terminally ill people can still exercise until very close to death.)

### SCORING FRAILTY IN PEOPLE WITH DEMENTIA

The degree of frailty generally corresponds to the degree of dementia. Common symptoms in mild dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.

In moderate dementia, recent memory is very impaired, even though they seemingly can remember their past life events well. They can do personal care with prompting. In severe dementia, they cannot do personal care without help. In very severe dementia they are often bedfast. Many are virtually mute.



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Rockwood K et al. A global clinical measure of fitness and frailty in elderly people. *CMAJ* 2005;173:489–95.

Fig 1. The Clinical Frailty Scale. Reproduced with permission from Rockwood K, Song X, MacKnight C et al. A global clinical measure of fitness and frailty in elderly people. *CMAJ* 2005;173:489–95.

interdisciplinary process is generally specialist led, however, acute medical teams can make important contributions through early identification and grading of frailty, and appropriate management of geriatric syndromes that includes minimising the risk of hospital-related harms. ■

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