

A Brief Guide Diagnosing Frailty in Primary Care and Using the Pathfields Tool to case-find frailty in your practice population:

By Dr David Attwood GP Partner and GPwSI Older People at Pathfields Medical Group

Frailty is defined as a state of reduced physiological reserve, where seemingly trivial physiological stressors trigger a dramatic deterioration in function. Frailty is an abstract concept and in this guide I hope to clarify the situation so that primary care clinicians feel more confident making the diagnosis.

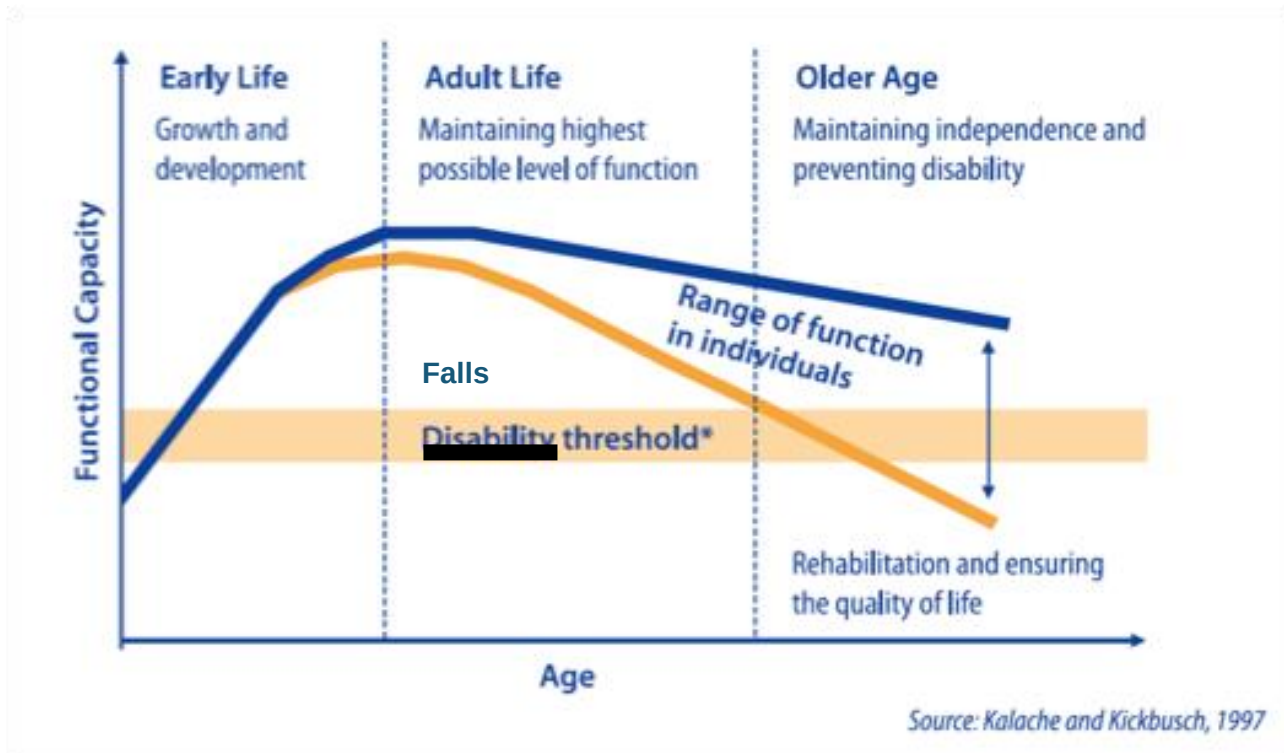


Conceptualising frailty:

When you stop and think about it, it's quite remarkable that we are able to stand upright and not fall over. A piece of wood of a similar height, when stuck in a shoe will easily topple over. Our abilities to remain upright in 3D space are the result of information being shunted backwards and forwards from multiple body systems- visual, vestibular, central/peripheral nervous, cardiovascular, and... well pretty much every system!

All of the systems are in perfect homeostasis and as a result micro adjustments are made in our muscle fibres that adjust where we are in 3D space. What's more life, the good lord, whatever you believe in, has equipped us with oodles of physiological reserve in all of these systems, meaning that it is rare for a normal adult to fall.

It is possible to artificially reduce your physiological reserve. A yard of ale followed by ten tequila's will merrily accomplish this feat; at this point your physiology will be impaired to the point where maintaining your position in 3D space will become very taxing. You will be very close to your '*falls threshold*,' the point at which staying upright becomes impossible. All it will take is a mild reduction in physiology (eg another shot of vodka) and you will fall through your *falls threshold* and find yourself on the deck.



The Ageing Process

At 40 years of age we are in the prime of life. As we continue to age, we slowly start to lose the physiological reserve across all body systems. As the graph above suggests, it has been observed that different people seem to lose their physiological reserve at different rates. An 85 year old on the blue line can be physiological robust. An 85 year old closer to the yellow line is much less so. One can easily imagine that their will reach a point where the loss of inbuilt reserves across multiple body systems occurs to the extent where remaining upright and walking becomes a struggle.

Just like that final shot of vodka for a young person, all it needs is for a seemingly trivial insult to occur to the body; a UTI, constipation, a script for codeine, and all of a sudden the compensatory mechanisms are lost, the patient hits their *falls threshold* and lands on the floor.

One could easily imagine a graph where you substitute the *falls threshold* with a *continence threshold* (the threshold at which a patient loses continence) a *confusion threshold* (at which point someone becomes confused), and *mobility threshold* (suddenly 'stuck on toilet', 'cant get out of chair').

As a result, the British Geriatrics Society has defined five frailty syndromes, which if present **and the history is suggestive** strongly indicate a diagnosis of underlying frailty. These are:

1. Falls
2. New/worsening incontinence
3. New/worsening immobility
4. New/worsening confusion

5. Susceptibility to side effects of multiple medications

When you think about frailty like this, isn't it easy? All you have to do is think to yourself "does my patient exist in a state of reduced physiological reserve?"

Frailty Exists on a spectrum:

Returning to the graph we can imagine that frailty exists on a spectrum:



Compared to fit and well people, patients with mild frailty will struggle with their higher order activities of daily living such as bin collections and travelling on the bus. They can normally get to the GP surgery for annual reviews but movement is slow and they take a while to stand, relying on heady arm usage to get them off the chair (due to quadriceps weakness). They will often have a slightly complex walking aid.

As frailty progresses, patients move into moderate frailty. This moderate loss of physiological reserve has a significant impact on daily living: they are generally housebound with a package of care for activities such as bathing, cooking, and cleaning. At this point we start to see the frailty syndromes.

Severe frailty has an equally severe effect on function: patients are either housebound with a massive package of care or in care homes. They require help with all activities of daily living (toileting, personal hygiene etc). There is clearly overlap between the three presentations.

A really useful pictorial way of diagnosing frailty is the Rockwood Clinical Frailty Scale shown below:

Clinical Frailty Scale*

	1 Very Fit – People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.		7 Severely Frail – 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).
	2 Well – 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.		8 Very Severely Frail – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.
	3 Managing Well – People whose medical problems are well controlled, but are not regularly active beyond routine walking.		9 Terminally Ill – Approaching the end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.
	4 Vulnerable – While not dependent on others for daily help, often symptoms limit activities. A common complaint is being "slowed up", and/or being tired during the day.	Scoring frailty in people with dementia. The degree of frailty 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.	
	5 Mildly Frail – These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications). Typically, mild frailty progressively impairs shopping and walking outside alone, meal preparation and housework.	* 1. Canadian Study on Health & Aging, Revised 2006. 2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005; 173:489-495.	
	6 Moderately Frail – People 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.	© 2008, Version 1.3, EN. All rights reserved. Geriatric Medicine Research, Dalhousie University, Halifax, Canada. Permission granted to copy for research and educational purposes only.	

 **DALHOUSIE UNIVERSITY**
Inspiring Minds

wouldn't get too hung up on pondering and coding the Rockwood score (score 1-9), just

diagnose frailty by severity as this is what dictates further management. **And whatever happens NEVER use Electronic Frailty Index (EFI) to diagnose frailty. It is for screening only.**

Using the Pathfields Tool to Diagnose Frailty:

For the past year Pathfields Medical Group have been piloting the use of primary care IT support clinical decision making. The IT has been designed to create a **patient cohort that is at high risk of having undiagnosed frailty**. If a clinician sees one of these patients, on saving the record, the popup below appears:

Page 1

Does this person have a state of reduced physiological reserve?

They're not Frail!
Physiologically robust and functionally independent

Mild Frailty:
Mildly reduced physiological reserve.
Slowing up e.g. taking ages to get into your Consultation room
Struggling with higher order activities eg transport

Moderate Frailty:
Reduced physiological reserve with significant impact on function
Can do some personal care but help needed with bathing, cooking etc
Patient generally housebound

Severe Frailty:
Reduced physiological reserve with severe impact on function
Dependent on carers
Patient housebound or in care home

Click if not Frail

Click if Mild Frailty

Click if Moderate Frailty

Click if Severe Frailty

Sentinel Health & Wellbeing
CHS

Information Print Suspend Ok Cancel Show Incomplete Fields

Click the relevant button and after that another popup invites you to diagnose whether they are housebound or in a care home. Once you do this, the popup will go dormant for 18 months. That's it. Job done.

To improve the uptake of patients with mild frailty, when a patient who is over 65 attends surgery for routine bloods or a QOF review, practice nurses, HCAs, and phlebotomists will receive a different prompt as showing overleaf:

Configure Question Branch

Compared to your average well older person was this patient obviously slower at getting into your room or struggling to stand up?

Answers

New Answer Delete Answer The top-most answer will be the one selected by default
The bottom-most answer will be the one selected by pressing the ESCAPE key

Yes

No

2 Answers

Ok Cancel

If they click yes, then that patient joins the **high risk cohort** and will be eligible for a clinician assessment for frailty when they next consult.

So what if I diagnose frailty?

Many people turn around and say “so what if we diagnose frailty? You can’t do anything.”

There is literally heaps we can do. From a population health management angle, it is possible to do the activities on the ‘plan on a page’ below, particularly if PCNs work collaboratively with their community provider:

COMMUNITY-BASED INTERVENTIONS FOR OLDER PEOPLE WITH FRAILTY BY SEVERITY:		
Step 1: Create patient groups with high frailty prevalence	Step 2: Programme Primary Care IT to fire a popup if patient in a high risk group so that clinicians opportunistically diagnose frailty	Step 3: Evidence-based interventions (where evidence exists)
High frailty prevalence groups: 1. Patients needing home visits 2. EFI score 'severe frailty' 3. Age >90 years 4. Patients with dementia 5. Patients in carehomes 6. Patients with difficulty mobilising noted by HCA/nurse on routine bloods or QOF reviews		1. Code as severe frailty 2. De-prescribing 3. Pragmatic Comprehensive Geriatric Assessment (CGA- main focus is examining patient goals, enabling patients to achieve goals and advance care planning) 4. Exempt from QOF (if appropriate) 1. Code as moderate frailty 2. De-prescribing 3. Consider advanced care planning 4. Clinically led CGA (main focus is keeping people happy, healthy and independent for as long as possible) 5. Exempt from QOF (if appropriate) 1. Code as mild frailty 2. Refer for social prescribing/goal orientated care to target things like loneliness/bereavement etc 3. Strength and balance, Tai Chi, Yoga classes 1. Send letter that is adapted from NHSE/AgeUK "Practical Guide to Healthy Ageing (2015)" and adapted to locality assets

I should qualify some of the interventions in step 3. Generally speaking, most research on frailty involves patients with moderate and severe frailty. There is very little research on patients with mild frailty or on frailty prevention in older people who are fit and well. Aside from strength and balance, yoga, and tai chi, the other points on referral to social prescribing and letter-bombing are pure conjecture.

However, with regards to letters, if only 1-3% of the population changed their behaviour from a one off letter this would represent numbers needed to treat (NNT) of 33-100. This is a pretty good return on investment for a one off cost, done once a year.

Referral to a social prescriber seems more intuitive; they are trained in motivational interviewing and ask questions such as “what matters to you?” and work with patients to support them in achieving their goals. We know that loneliness strongly correlates with frailty development and one could imagine that a social prescriber could improve social connectedness. The simple act of going out and meeting people offers patients a dose of exercise, which would improve activity, strength, and balance.

In terms of Comprehensive Geriatric Assessments (CGA) for the moderate-severe frailty patient cohort, the evidence is pretty robust. The simple act of discussing a patient with an MDT using a semi-structured process, encompassing all the domains of the CGA achieves some great outcomes with a significant proportion of patients with frailty alive, independent and in their own home at 12 months compared to those without. Furthermore, you can save the CCG around £100/patient/year of life by conducting a meds review and de-prescribing medications.

Although CGAs have shown a reduction in hospital admissions I suspect they also reduce length of stay if patients are admitted. If the output of a CGA is a care and support plan (CSP) and TEP, which is shared with the patient, Ambulance providers and Out of Hours GP services, and the CSP and TEP goes into hospital with the patient, one could imagine that this would expedite discharge.

Lastly, there is evidence from studies USA that whole systems integration (shared IT, shared workforce, local leadership) can reduce healthcare utilisation and improve healthcare outcomes. However, these effects often take at least three years, the reason being that it takes time to get around a whole community and a further time period needs to elapse before the interventions deployed, start to bear fruit.