PLT Frailty Session 2026

Dr Simon Hattle

GPwSI Geriatric & Acute Medicine

Peterborough City Hospital

Simon.hattle2@nhs.net

Contents

- What is frailty?
- How can we identify it?
- Why does frailty matter?
- What can we do to help the Frail patient?
- Summary
- Question time….

Ground rules

Not acceptable:

- Just a GP…
- Primary care best placed to...
- Primary care failing patients with……
- Wes Streeting

Acceptable:

- Just a Geriatrician

What is Frailty?

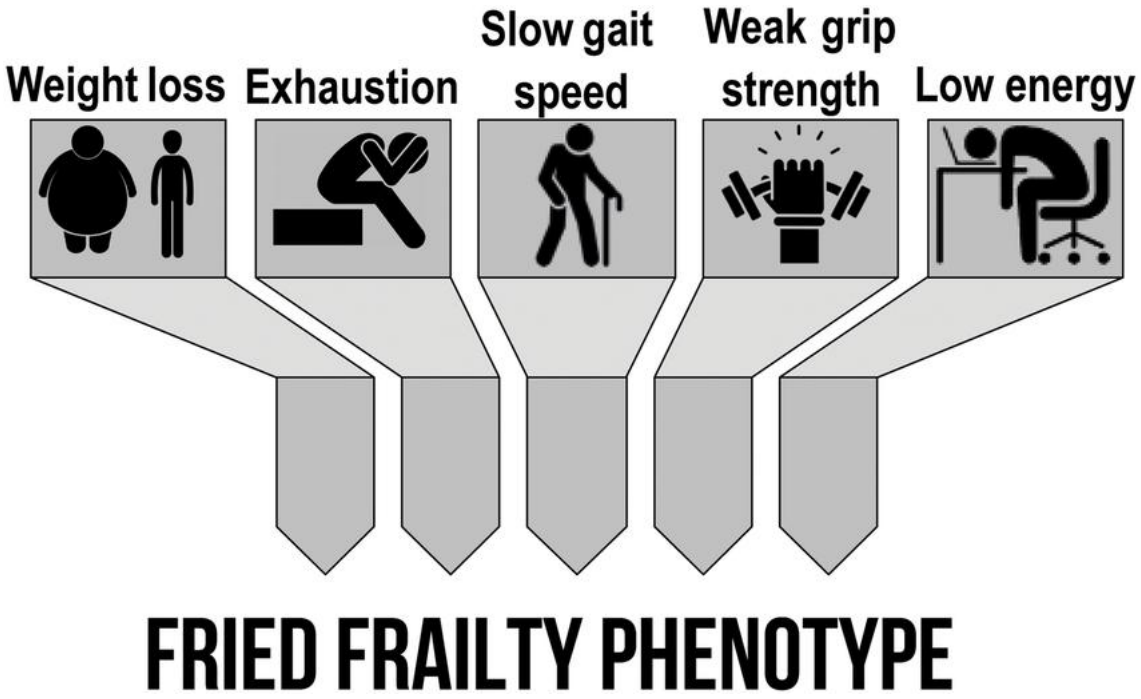
It isn’t normal ageing!

What is frailty?

- From the latin *fragilis* = easily broken
- No single agreed definition
- It isn't a diagnosis
- **Frailty is best thought of as a syndrome of vulnerability — rather than a single disease**
- Two main models:
  - Fried Phenotype Model (2001)
  - Rockwood Cumulative deficit model (2007)

Fried Phenotype Model (2001)

“A clinical syndrome characterised by decreased reserve and resistance to stressors”



Cumulative Deficit Model (Rockwood & Minski 2007)

"A multidimensional state of vulnerability due to accumulated deficits"

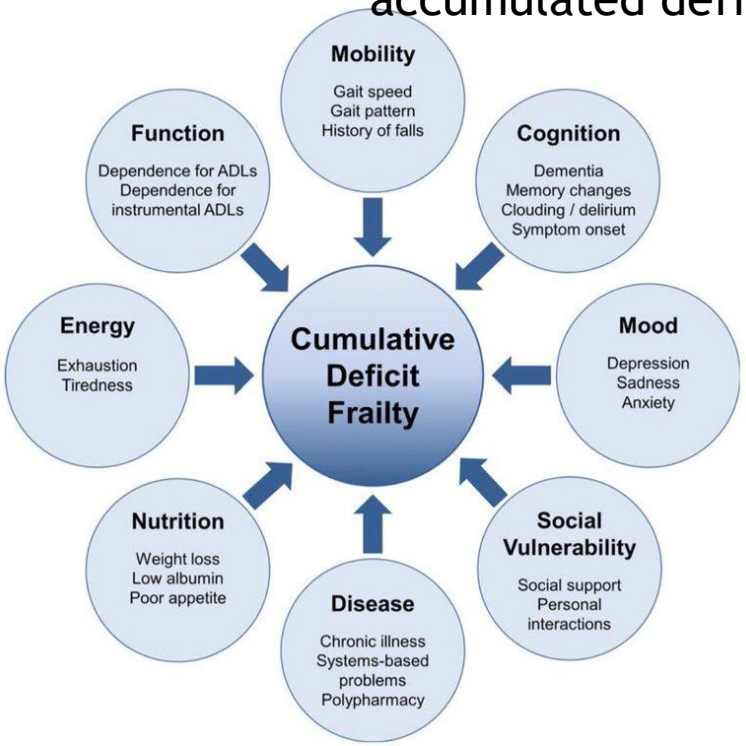
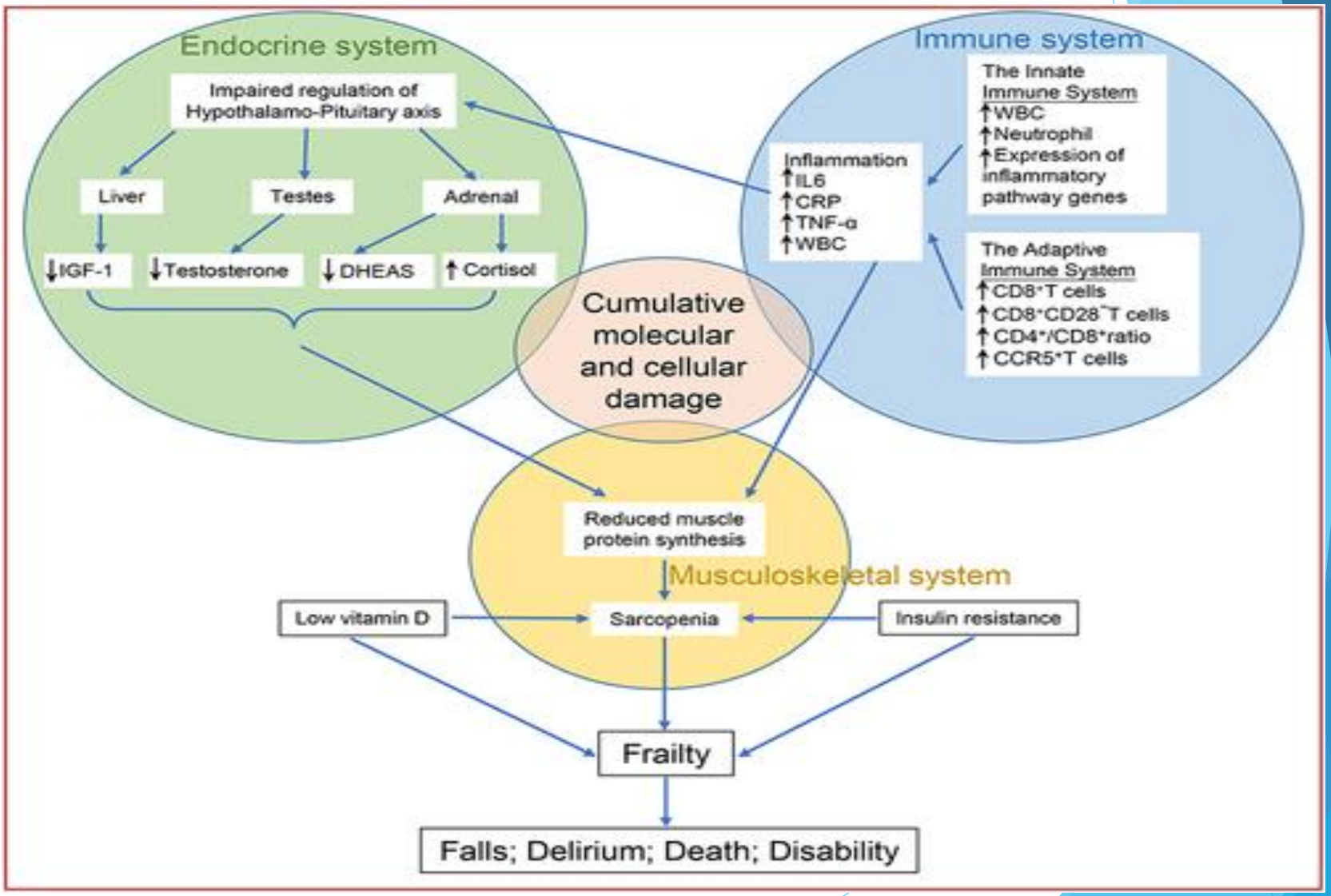


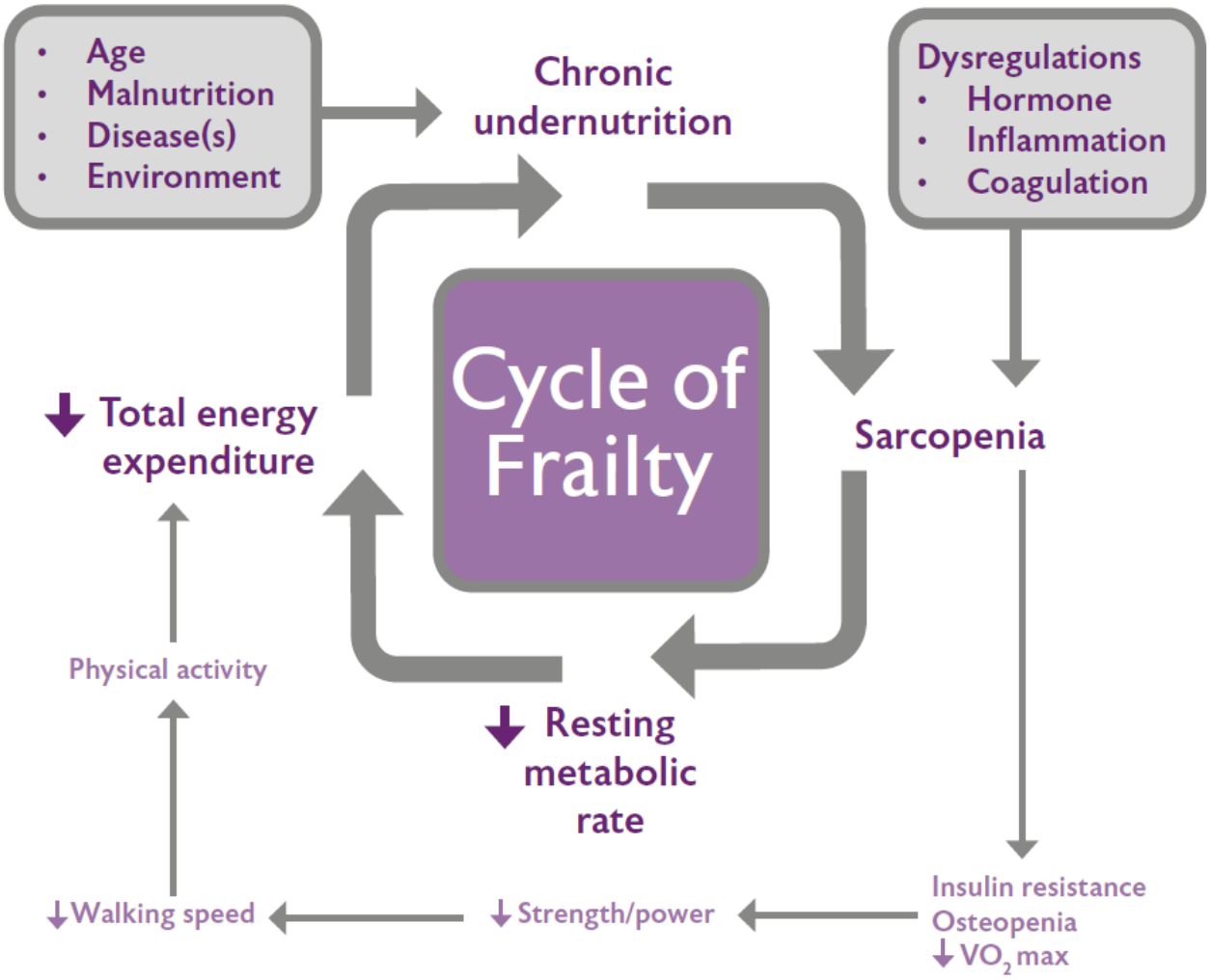
FIGURE 3. The Cumulative Deficit Model of Frailty, Which Proposes That the Accumulation of Medical, Social, and Functional Deficits Over a Person's Lifetime Leads to a Nonspecific, Age-Associated Vulnerability, or Frailty. ADLs indicates activities of daily living. Figure adapted from: Robinson TN, Walston JD, Brummel NE, et al. Frailty for surgeons: review of a National Institute on Aging conference on frailty for specialists. *J Am Coll Surg*. 2015;221:1083-1092.[13]

Pathophysiology of frailty



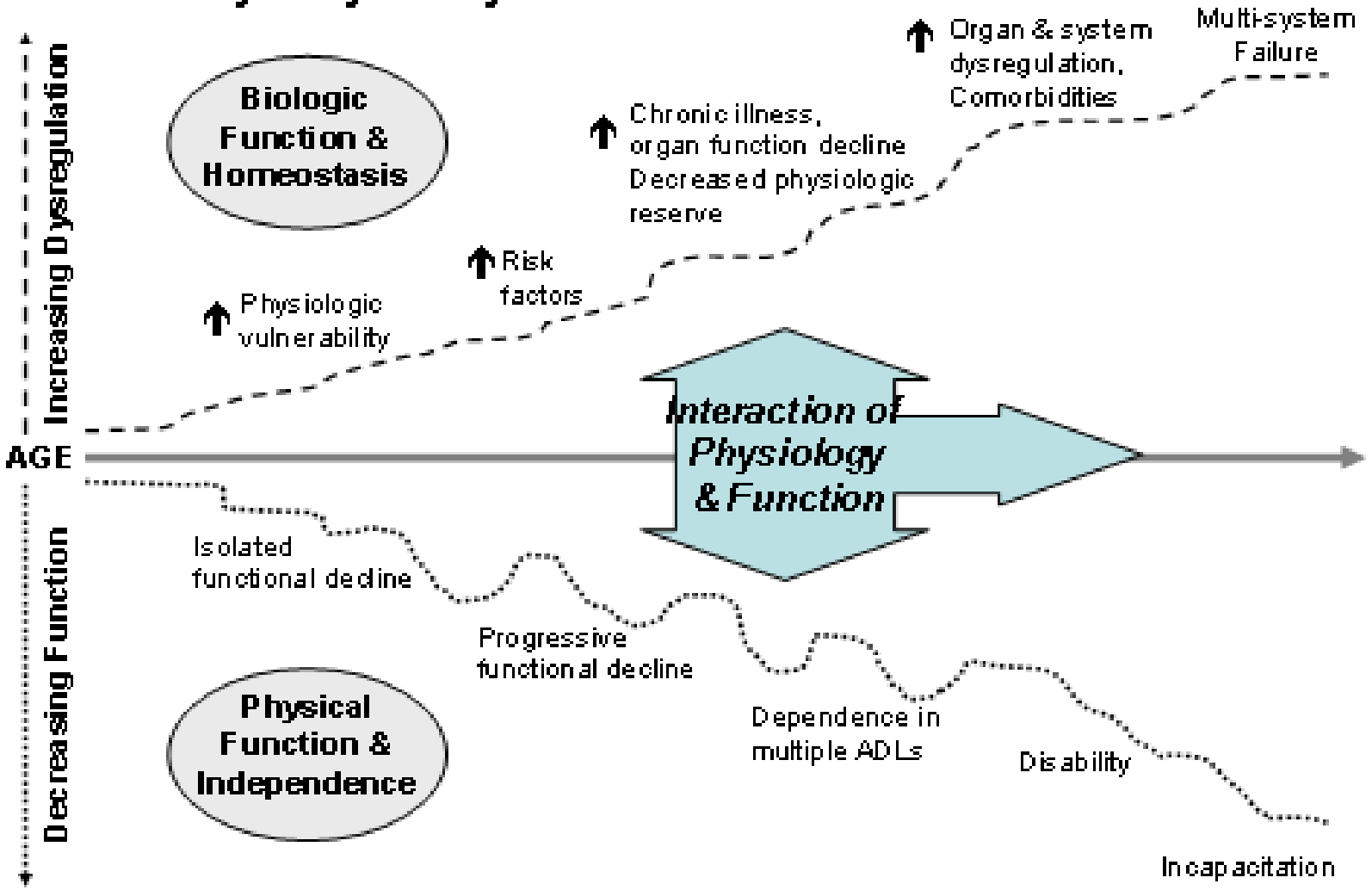
Why does it occur?

- Frailty occurs due to the combined effects of ageing, disease, inflammation, muscle loss, and social factors leading to loss of physiological reserve.
- Risk factors:
  - Increasing age (strongest risk factor – deficit accumulation)
    - 5-10% (65-75), 25-50% (>85)
  - Female sex (higher prevalence, longer survival with frailty) – but men have worse outcomes
  - Multimorbidity, Polypharmacy, Lower socioeconomic status etc



Adapted from: Lang PO, Michel JP, Zekry D. Frailty Syndrome: A Transitional State in a Dynamic Process. Gerontology 2009;55:539-49. 10.1159/000211949. With permission.

The Frailty Trajectory



CONTEXT: Physical & Social Environment, Economics, Services, Culture, Preferences

Quick Summary - Frailty

- Not a diagnosis, not a disease, no single agreed definition
- A syndrome of vulnerability — rather than a single disease.
- Caused by multiple factors with muscle loss (sarcopenia) a central factor
- Risk factors: increasing age, co-morbidity, polypharmacy etc
- Results in weight loss, reduced mobility, low energy
- Minor stressors can cause major deterioration

What is Frailty?

Frailty is a word used in healthcare that is often **misunderstood**.

Frailty means your **recovery** from illness or injury can **take longer or be more difficult**.

It is more common as we age, but younger people can also live with frailty.

People living with frailty might notice...

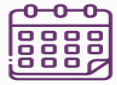
Feeling slower

Weakness and muscle loss

Feeling tired

Needing more help with daily tasks like getting dressed

Weight loss without trying



Taking a long time to recover from illness

If you have some of the symptoms above, talk to your doctor. You may be screened for frailty using a score called the **Clinical Frailty Scale**[1]. Being given a frailty score may come as a shock. However, knowing about frailty can help you prevent and manage it.

The Clinical Frailty Scale can give you a frailty score. Some examples from the scale are shown below.

What can I do?

Ask for support to:

- Be active
- Exercise regularly
- Eat a balanced diet
- Stop smoking
- Reduce alcohol intake
- Maintain a healthy weight

These steps all help prevent frailty and improve life if you live with frailty.

Ask your doctor or healthcare team if you're worried about frailty

What can my doctor do?

If you have frailty, you will usually be supported by a team led by a GP or a specialist doctor for older people (geriatrician).

They will be able to:

- Offer **support, advice** and **treatment**
- Answer your **questions**

Reference

1. bgs.org.uk/sites/default/files/content/attachment/2018-07-05/rockwood_cfs.pdf

Produced by the British Geriatrics Society
January 2023. Review date: January 2025

British Geriatrics Society
Improving healthcare for older people

How can we identify frailty?

Frailty Syndromes

- 30 year old with a UTI
  - Dysuria
  - Urinary frequency
  - Managed with 3 days trimethoprim – symptoms resolve
- Frail 85 year old with a UTI
  - Acutely confused (Delirium)
  - Fall, on the floor for 10 hours, found by Daughter
  - A&E attendance, hospital admission, deconditioning (PJ Paralysis), loss of independence and function, discharged to Residential care home

  - **Presentation is multifactorial, not disease-specific, and reflects underlying vulnerability across multiple systems.**

Frailty Syndromes (Geriatric giants) – Red flags of Frailty

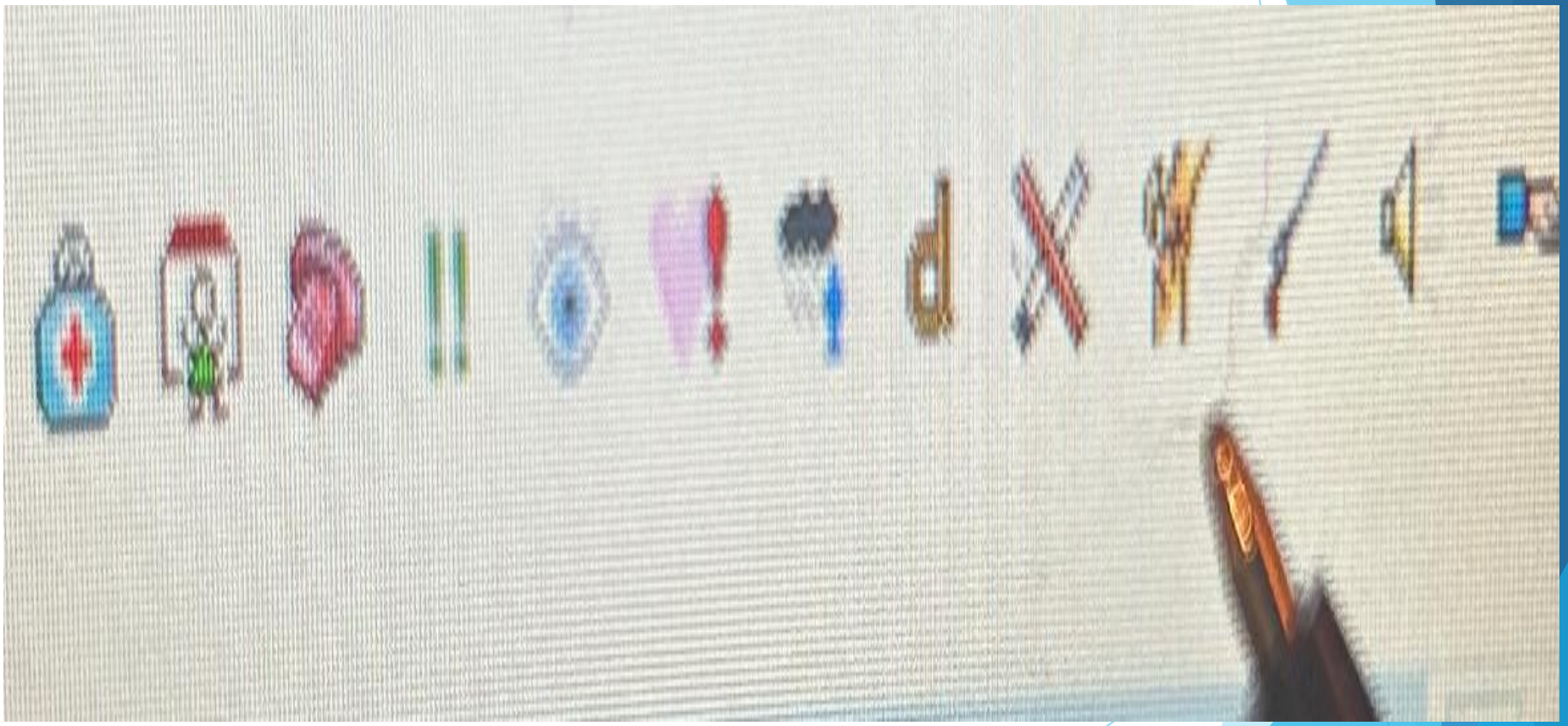
1) **Falls** (e.g. collapse, legs gave wat, 'found lying on floor'
2) **Immobility** (e.g. sudden change in mobility, 'gone off legs' 'Stuck in toilet')
3) **Delirium** (e.g. acute confusion, 'muddledness', sudden worsening of confusion in someone with previous dementia or known memory loss)
4) **Incontinence** (e.g. changes in continence – new or worsening of urine or faecal incontinence)
5) Susceptibility to side effects of **medication** (e.g. confusion with codeine, hypotension with antidepressants) – Polypharmacy harm

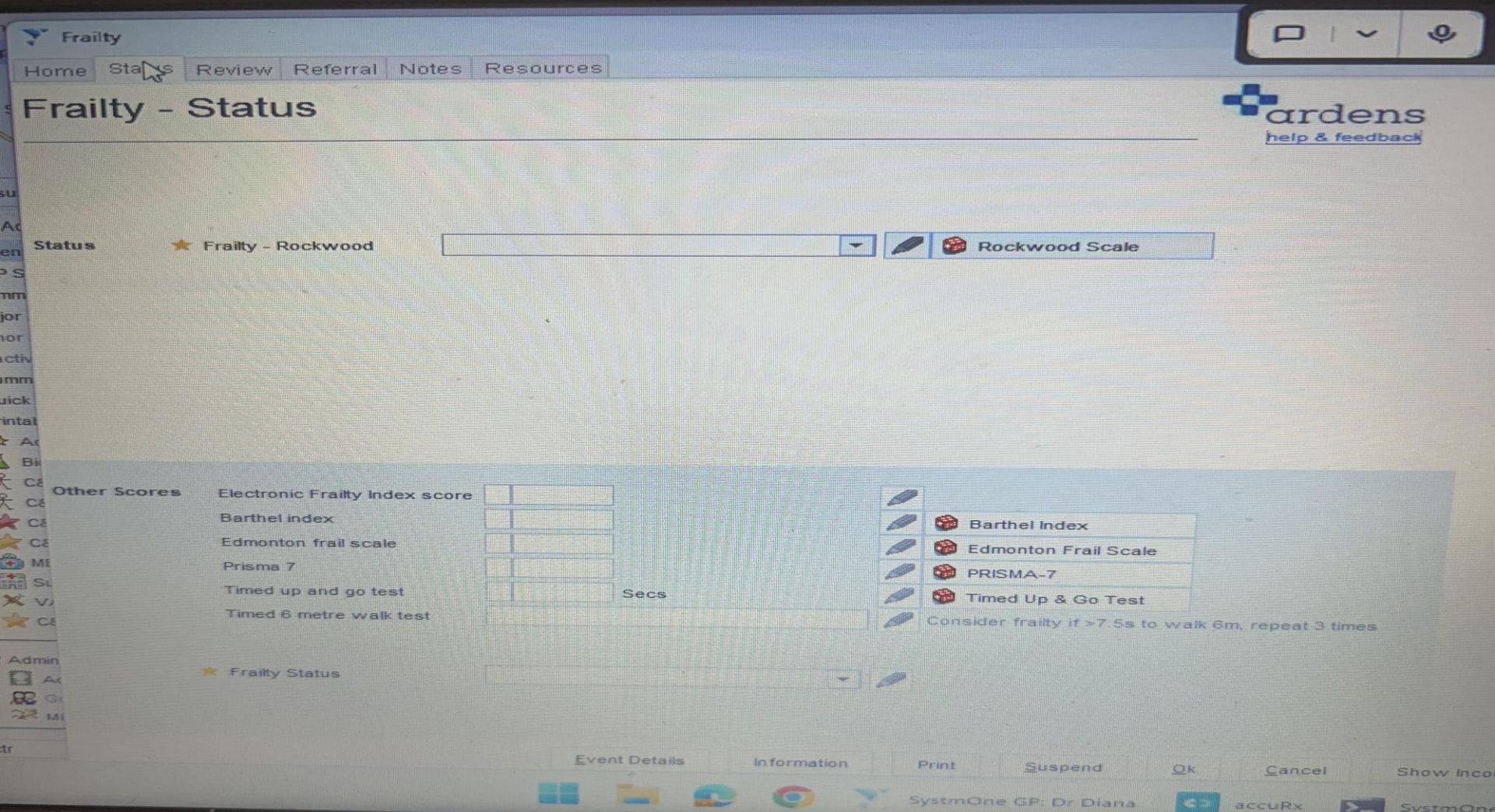
(Increasing dependency, recurrent admissions)

Frailty identification - Validated tools

- No gold standard
- **Electronic Frailty Index** (eFI) – GP Read codes
  - Case finding/population screening
  - Needs clinical validation
- **Clinical frailty score** (CFS)
  - Function/mobility/dependence
  - Takes <30 seconds
- PRISMA-7 – NICE – Primary care screening
- Frailty Phenotype – Fried criteria
- Rockwood Frailty Index
- Edmonton Frail Scale
- Gait speed
- Timed up and go test
- (Barthel Index – assessment of ADLs)

What is it supposed to be?




Frailty
Home
Status
Review
Referral
Notes
Resources
Frailty - Status
ardens
help & feedback
Status
Frailty - Rockwood
Rockwood Scale
Other Scores
Electronic Frailty Index score
Barthel index
Barthel Index
Edmonton frail scale
Edmonton Frail Scale
Prisma 7
PRISMA-7
Timed up and go test
Secs
Timed Up & Go Test
Timed 6 metre walk test
Consider frailty if >7.5s to walk 6m, repeat 3 times
Frailty Status
Event Details
Information
Print
Suspend
Ok
Cancel
SystmOne GP: Dr Diana
accuRx
SystmOne

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.

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.

3 **Managing Well** – People whose **medical problems are well controlled,** but are **not regularly active** beyond routine walking.

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.

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.

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.

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).

8 **Very Severely Frail** – Completely dependent, approaching the end of life. Typically, they could not recover even from a minor illness.

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.**

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.

* 1. Canadian Study on Health & Aging, Revised 2008.
2. K. Rockwood et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489-495.

DALHOUSIE UNIVERSITY
Inspiring Minds

Activities of Daily Living (ADL)

ICP

ADL'S

- Showering
- Dressing
- Eating and feeding
- Using the toilet
- Transferring (e.g., moving from a bed to a chair)
- Maintaining continence
- Grooming (e.g, brushing teeth, combing hair)
- Walking & mobility

IADL'S

- Managing finances
- Handling transportation
- Shopping for groceries
- Preparing meals
- Managing medications
- Housekeeping and home maintenance
- Using communication devices

Why does frailty matter?

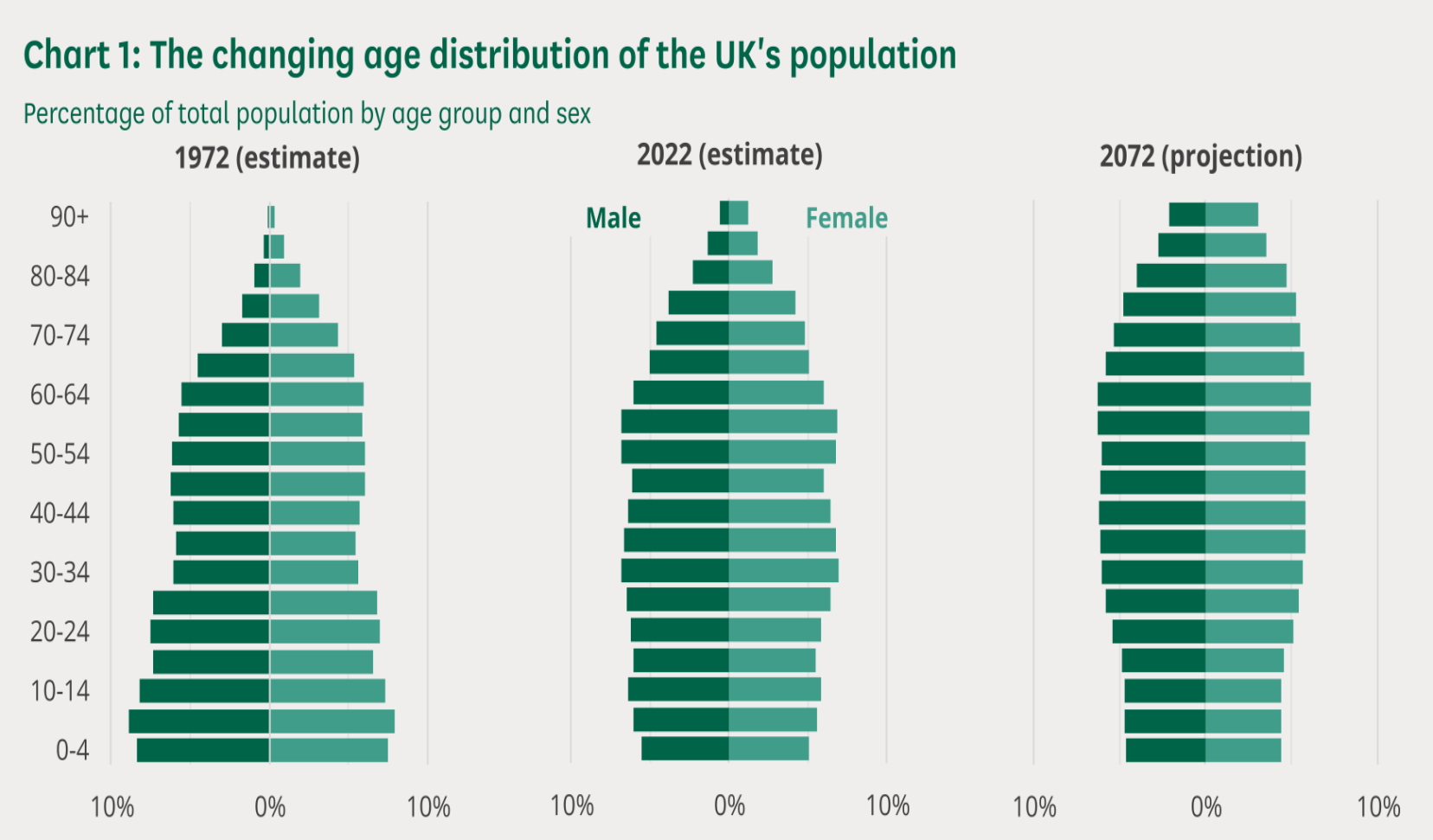
Frailty matters

- Frailty is common:
  - **~1.8 million people in the UK living with frailty**
  - **≥ 65: 10-20% frail, 30-40% pre-frail 6.5%, → up to 65% in ≥90s**
- Frailty is increasing: rising prevalence + ageing population
- Frailty is costly- £5.9 billion annual NHS cost
  - Frailty significantly increases healthcare utilisation
- Frailty dominates hospital care:
  - Approx 1/3rd of all acute medical admissions are frail
  - **~40-50% of ≥65 hospital inpatients are frail**
  - **4,000 admissions/day** linked to frailty (GIRFT)

Frailty matters

- Frailty predicts outcomes better than age alone:
  - Increased risk of decline
  - Increased risk of admission and readmission
  - Longer length of stay
  - Higher rate of Institutionalisation
  - Increased Mortality
    - Increased in hospital mortality, increased 30 day mortality, increased 12 month mortality
    - 20-40% 12 month mortality in moderate to severe frailty

An ageing population



Why does this matter in Primary Care?

- Identifying frailty can enable:
  - Admission prevention
  - Early MDT involvement
  - Medication optimization
  - Falls prevention
  - Advance care planning

What can we do to help our Frail patients?

GPs failing older people living with frailty, National Audit Office finds

Of patients diagnosed with condition in 2024/25, only 18% were assessed for fall risk and just 16% had a medical review

Tobi Thomas *Health and inequalities correspondent*

Fri 5 Dec 2025 00.01 GMT

Frailty is a condition related to ageing in which body systems lose their reserves, leading to symptoms including exhaustion and greater fall risk. Photograph: Robert Kneschke/Alamy

GPs are failing to provide adequate support for people living with frailty, an independent watchdog has found.

Frailty is a syndrome related to ageing and in which body systems gradually lose their in-built reserves. Symptoms include exhaustion and people living with frailty are more likely to be housebound.

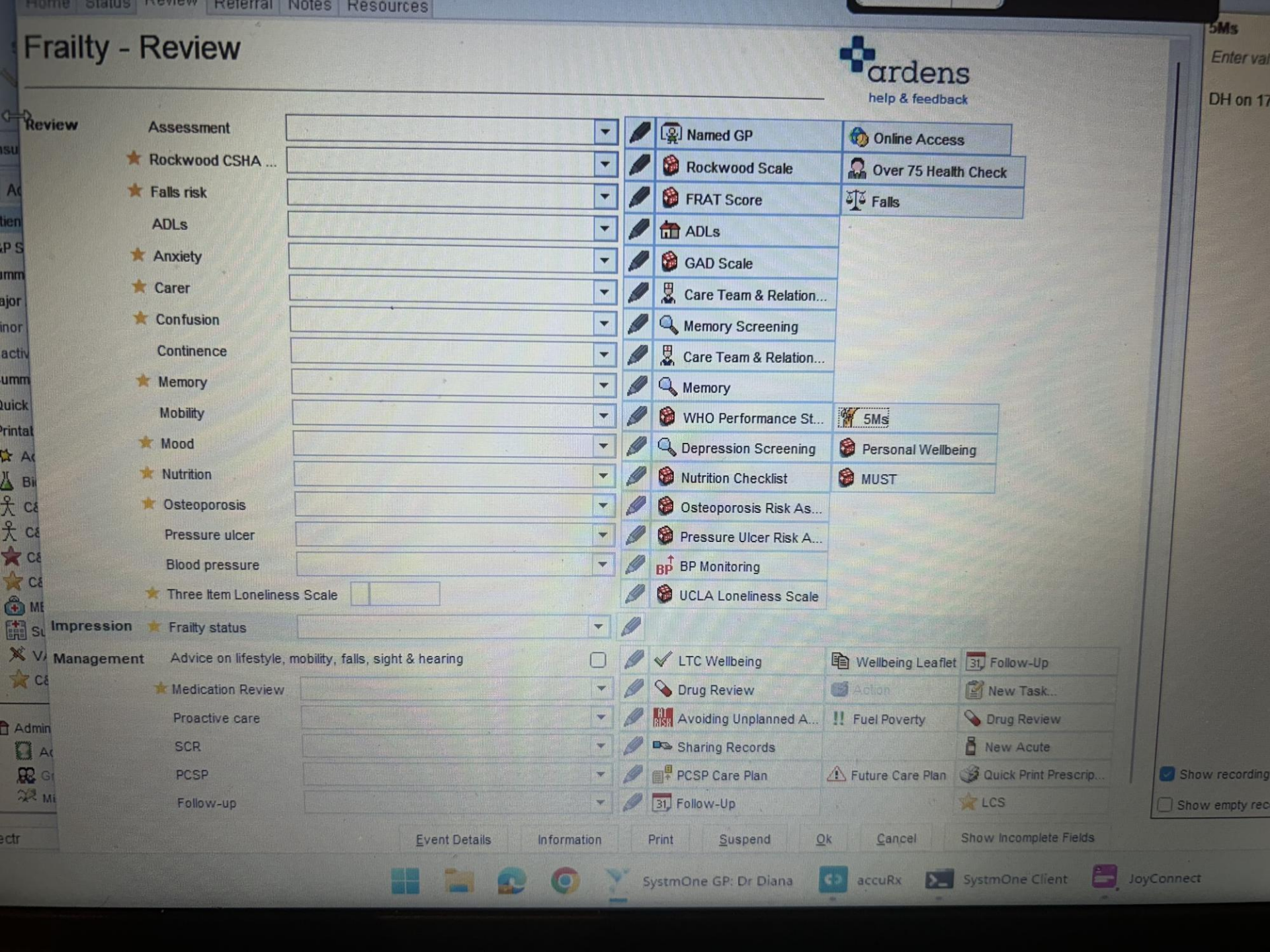
GPs are required to identify any registered patient aged 65 or over who is living with frailty, but only one in six were assessed for the condition in

The NHS System is failing Frail Patients?

1ry Care - The Frailty Challenge

CFS	Description	Conditions	Medications	Avg Problems per Consultation
1-3	Fit/well	0-2	0-3	1-2
4	Vulnerable	2-3	3-5	2-3
5	Mild Frailty	3-5	5-7	3-4
6	Moderate Frailty	4-6	6-9	4-5
7	Severe Frailty	5-7	8-10+	5-6
8-9	Very severe	6-8+	10-12+	5-7 (often dominated 1-2 major issue but with high complexity)

- Average UK GP Consultation 9.2 minutes
- ”By the time someone reaches moderate frailty, they typically have five or more interacting conditions – and that’s before we even consider function and social complexity


Home
Status
Review
Referral
Notes
Resources
Frailty - Review
ardens
help & feedback
Review
Assessment
Rockwood CSHA ...
Falls risk
ADLs
Anxiety
Carer
Confusion
Continence
Memory
Mobility
Mood
Nutrition
Osteoporosis
Pressure ulcer
Blood pressure
Three Item Loneliness Scale
Named GP
Online Access
Rockwood Scale
Over 75 Health Check
FRAT Score
Falls
ADLs
GAD Scale
Care Team & Relation...
Memory Screening
Care Team & Relation...
Memory
WHO Performance St...
5Ms
Depression Screening
Personal Wellbeing
Nutrition Checklist
MUST
Osteoporosis Risk As...
Pressure Ulcer Risk A...
BP Monitoring
UCLA Loneliness Scale
Impression
Frailty status
Management
Advice on lifestyle, mobility, falls, sight & hearing
Medication Review
Proactive care
SCR
PCSP
Follow-up
LTC Wellbeing
Wellbeing Leaflet
Follow-Up
Drug Review
Action
New Task...
Avoiding Unplanned A...
Fuel Poverty
Drug Review
Sharing Records
New Acute
PCSP Care Plan
Future Care Plan
Quick Print Prescrip...
Follow-Up
LCS
Event Details
Information
Print
Suspend
Ok
Cancel
Show Incomplete Fields
Show recording
Show empty rec
SystmOne GP: Dr Diana
accuRx
SystmOne Client
JoyConnect

NHS 'failing our most vulnerable' as elderly more likely to wait longer in A&E

A&Es have seen a surge in elderly patients waiting more than 12 hours since the NHS was forced to normalise 'corridor care' to get ambulances back on the road

Older people are more likely to wait longer, NHS data shows (Image: PA)

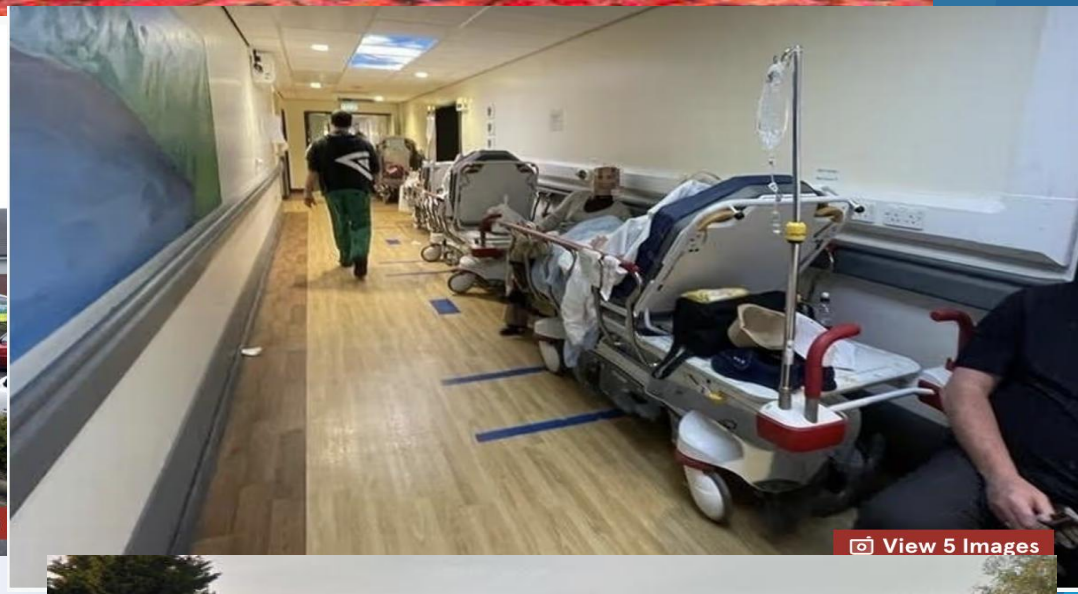
A&Es have seen a huge surge in elderly patients waiting to be admitted since the normalisation of "corridor care". NHS data collated by the Royal College of Emergency Medicine (RCEM) shows the older they are, the more likely they are to have to wait.

Figures obtained under Freedom of Information Act laws show that 1.15 million people aged 60 and over waited more than 12 hours to be transferred, admitted or discharged in England's major A&E departments last year. This is a jump on the 991,068 in 2023 and about three times the figure for 2019, when 305,619 were affected.

The Hospital journey..

- Frail 85 year old with a UTI
  - Acutely confused (Delirium)
  - Fall, on the floor for 10 hours, found by Daughter
  - A&E attendance, hospital admission, deconditioning (PJ Paralysis), loss of independence and function, discharged to Residential care home


View 5 Images


View 5 Images

A New Hope....

Enhanced Health In Care Homes

NHS

GIRFT

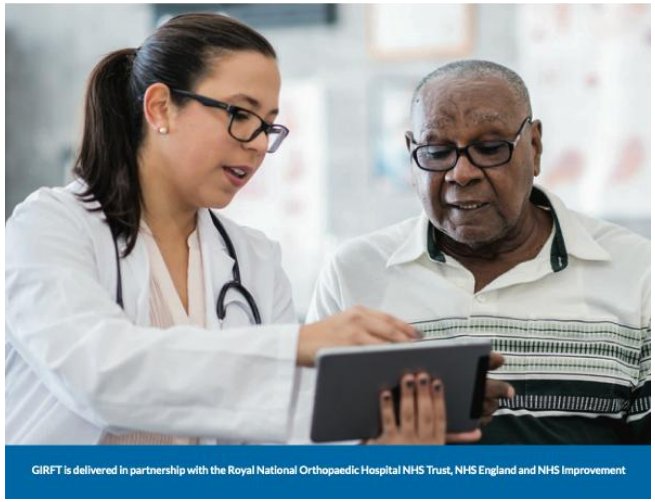
GETTING IT RIGHT FIRST TIME

Geriatric Medicine

GIRFT Programme National Specialty Report

by Dr Adrian Hopper
GIRFT Clinical Lead for Geriatric Medicine

February 2021



GIRFT is delivered in partnership with the Royal National Orthopaedic Hospital NHS Trust, NHS England and NHS Improvement

NHS England

Search

About us | Our work | Commissioning | Get involved

Date published: 13 February, 2024
Date last updated: 13 February, 2024

Print or save to PDF

Older people, Urgent and emergency care

FRAIL strategy

A strategy for the development and/or improvement of acute frailty same day emergency care services.

< Publication

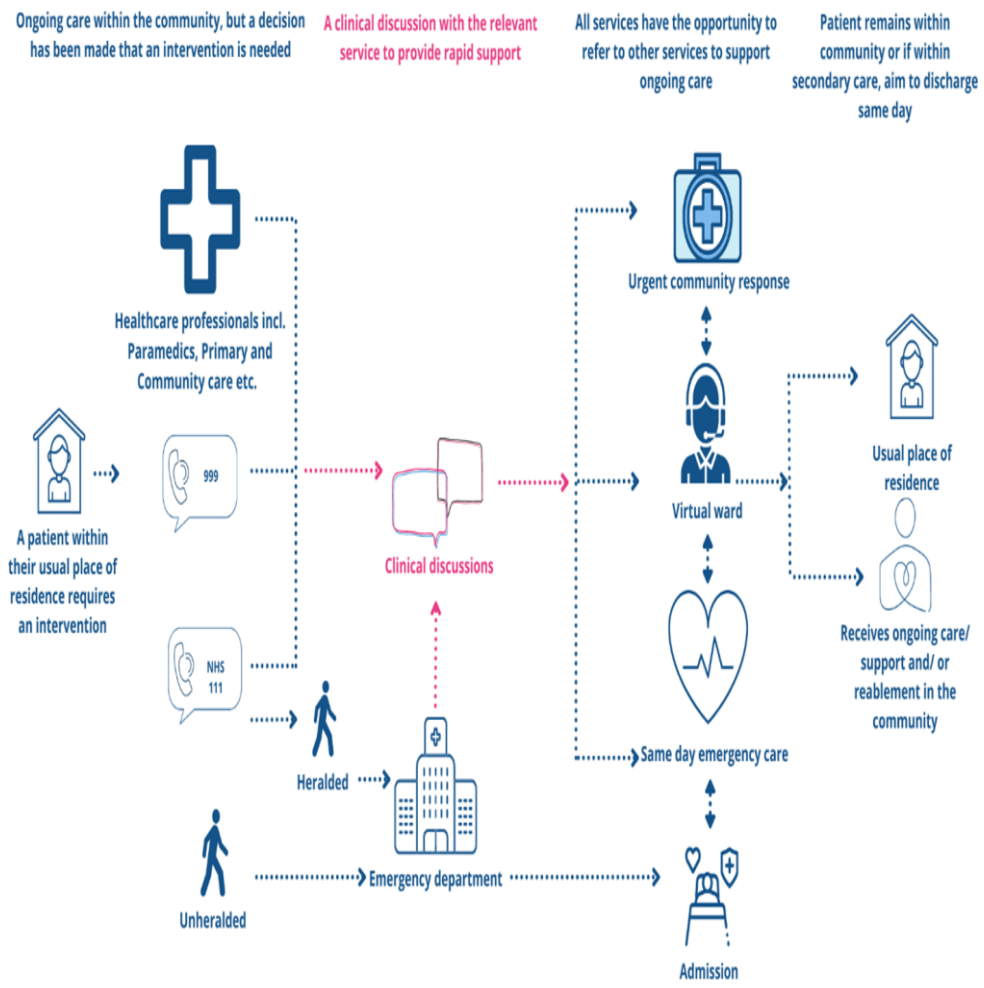
Content

Introduction

Following publication of the Delivery plan for the recovery of urgent and emergency care services and the commitment in the NHS Long Term Plan for an acute frailty service/same day emergency care service (AFS) to be in place across every hospital with a Type I emergency department (ED) for 70 hours a week, this FRAIL strategy supports wider healthcare systems to deliver and improve acute frailty services across England by setting out a practical approach. This will mean more older people living with frailty can be safely discharged on the same day they arrive, avoiding admission overnight.

A self-assessment tool that summarises the recommendations is given in Appendix 1.

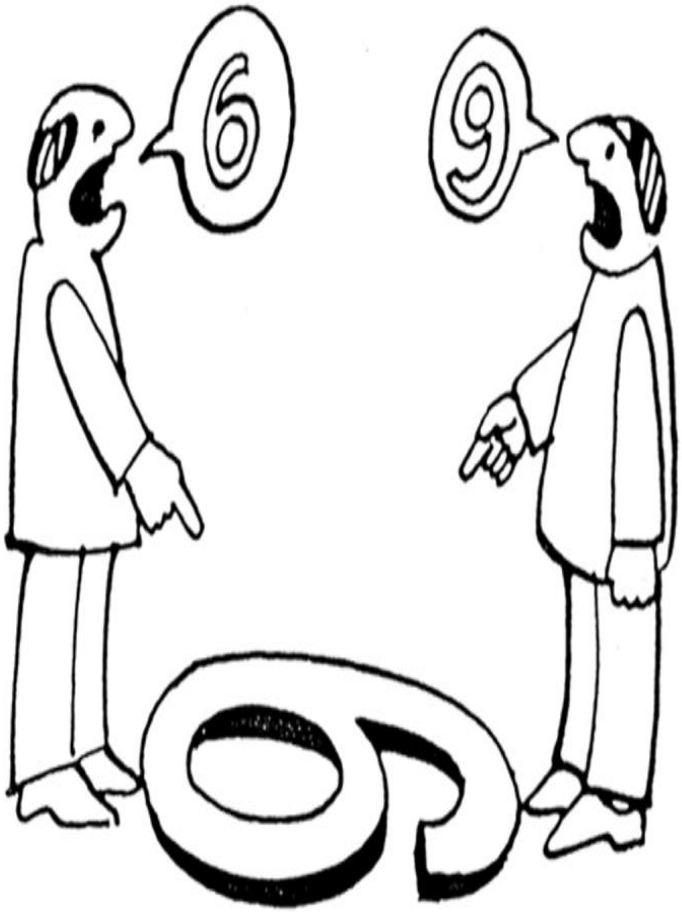
New ways of working



FRAIL

FRAIL is a mneumonic for the 5 key principles of an acute frailty service:

- Focus on the acute problem:
  - assess patients on arrival and treat the acute condition they have presented with
  - complete a clinical frailty assessment within 30 minutes of arrival
- Refer:
  - refer to the multidisciplinary acute frailty service if needed
  - liaise with other key services to support same day discharge
- Assess:
  - initiate a Comprehensive Geriatric Assessment (CGA) to further assess the patient
- Identify needs:
  - aim to personalise needs and support a patient-centred approach
- Leave:
  - discharge the patient on the same day, with a discharge summary that links the patient into other key services for ongoing care


6
9

What can we do to help our Frail patients?

What can Primary Care do to help?

- View frailty as a longitudinal risk state and not a single disease
- Identify the right patient early
  - Electronic Frailty Index
- Confirm frailty - Clinical Frailty Score
  - All team members play a role
    - Reception team – patient slowing down
    - Administration team – multiple discharge letters and referrals
    - Practice nurses – chronic disease reviews, immunization clinics
    - Physiotherapists – falls assessments
    - Dieticians, SALT, OT
    - Social prescribers
    - ACPs
    - GPs
    - Pharmacy team – noticing polypharmacy
- Why? - If you recognise frailty early, you can change the trajectory – if you don't, you manage the crisis

Quick wins? Marginal gains?

- Patient identification – starting the conversation
- Patient information re frailty
- Evidence based interventions
  - Medication reviews
  - Comprehensive geriatric assessment
  - Resistance exercise
  - Nutrition optimization
  - Some evidence for Vitamin D, Social support
- Difficult conversations:
  - RESPECT
  - Advanced care planning

Comprehensive Geriatric Assessment (CGA)

Comprehensive Geriatric Assessment

- A multidimensional, multidisciplinary assessment of a frail older person, leading to a coordinated care plan
  - Treats the whole patient
- Covers:
  - Medical (multimorbidity, medications)
  - Functional (ADLs, mobility, falls)
  - Cognitive (delirium, dementia)
  - Psychological (mood)
  - Social (support, environment)
  - Environmental (home safety)
- Focus = function, not just diagnosis

Comprehensive Geriatric Assessment (CGA)

Comprehensive Geriatric assessment

- **Multidisciplinary team (MDT):**
  - GP / Geriatrician
  - Nurse / Advanced Practitioner
  - Pharmacist
  - Physiotherapist
  - Occupational Therapist
  - Social worker
  - Community teams / care coordinators
- Involves:
  - Identify frailty (eFI / CFS)
  - Holistic assessment
  - Problem list + priorities
  - Personalised care plan
  - Follow-up + coordination

What is the evidence for CGA?

- **Strongest evidence is completion in a hospital setting**
  - **Reduces mortality**
  - **Improves independence**
  - **Increases likelihood of living at home**
  - Landmark Cochrane review: Patients receiving CGA more likely to be alive and at home at 6-12 months
- **Community / primary care evidence**
  - **May reduce unplanned admissions** (low-moderate certainty)
  - Improves:
    - Care coordination
    - Medication optimisation
    - Patient-centred outcomes
- Most effective when:
  - Targeted at **moderate-severe frailty**
  - Linked to **MDT action (not just assessment)**
- CGA works best when it is **ongoing and proactive**, not a one-off assessment

Polypharmacy

Polypharmacy

- **Frailty reflects the accumulation of deficits — and polypharmacy is often the visible marker of that accumulation**
- ≥5 medications (polypharmacy)
- ≥10 medications (hyper-polypharmacy)
- Can lead to falls, delirium, postural hypotension, ‘Off legs’, recurrent admissions

Approach to Polypharmacy

- Shift from disease-based care to Function-based care:
  - Is there a **current indication**?
  - **Is it still benefiting the patient?**
    - Primary prevention drugs often: ↓ benefit in frailty and ↑ harm
  - **Is it causing harm? Sedation, falls, hypotension, anticholinergic burden**
- STOPP/Start criteria
- Beers list
- Anticholinergic burden

Medicine Group	Anticholinergic Burden			
	Minimal	Mild	Moderate	Severe
Antidepressants				
	• Buproprion • Duloxetine	• Mirtazepine • Sertraline • Venlafaxine		• Amitriptyline • Imipramine • Nortriptyline • Paroxetine
Urinary Incontinence				
	• Mirabegron			• Darafenacin • Fesoteradine • Oxybutynin • Solifenacin • Tolterodine • Trospium
Nausea and Vomiting				
	• Prochlorperazine • Domperidone • Metoclopramide			• Levomepromazine • Cyclizine
Antihistamines				
	• Fexofenadine	• Cetirizine • Desloratidine • Loratidine		• Chlorphenamine • Clemastine
Reflux medications				
	• Esomeprazole	• Cimetidine • Lansoprazole • Omeprazole • Ranitidine		

Adapted from Scottish Intercollegiate Guidelines Network (SIGN) Polypharmacy Guidance, March 2015

Pragmatic prescribing to reduce harm for older people with moderate to severe frailty

British Geriatrics Society
Improving healthcare for older people

Moderate frailty (CFS 6)

Individual needs help with some aspects of personal care (e.g. washing or dressing), may struggle on stairs, may no longer go out alone

Severe frailty (CFS 7-9)

Individual needs help will all personal care or receiving palliative care

Key aims		• Use shared decision-making to establish patient goals. • More lenient therapeutic targets may better balance medication harms and benefits.	• Symptom control.
Common conditions	**Potential harm from medicines**	**Adjustment**	**Adjustment**
Hypertension	• Falls Fractures • Electrolyte imbalance • Acute kidney injury	More lenient target – average systolic BP in range 140-160 mmHg.[1] Measure BP when sitting and one minute after standing – use lower value for therapeutic decisions.[2]	No BP target – harms likely to exceed benefits. Deprescribing advised.
Type 2 Diabetes	• Hypoglycaemia, leading to cognitive decline/falls	HbA1c target 60 to 75 mmol/mol.[3]	Avoid symptomatic hyper/hypoglycaemia. Simplify prescription.
Cholesterol	• Myalgia • Sarcopenia • Functional decline	Primary prevention: deprescribing advised. Secondary prevention: NNT likely to exceed 100/year to prevent one cardiovascular event – discuss stopping.[4]	Harms likely to exceed benefits. Deprescribing advised.
Heart failure with reduced ejection fraction	• Hypotension • Volume depletion • Falls	Limiting prescribing to fewer than the 'four pillars' may be a better balance of risks and benefits.[5] **ARNI/ACEi** Hypotension, hyperkalaemia. **Beta-blocker** Orthostatic hypotension. **MRA** Dehydration, hyperkalaemia. **SGLT2i** Dehydration, urinary tract infection, thrush.	Continue loop diuretics for fluid overload only.
Osteoporosis	• Therapeutic burden	If on bisphosphonate >3 years, then little evidence of benefit of continuation for next 3 years - discuss stopping.[6]	Treatment unlikely to be beneficial if immobile or in last year of life.
Cognitive impairment	• Accelerated cognitive decline • Falls • Fractures	Minimise exposure to anticholinergic medicines.[7] Evaluate ongoing risk/benefit of any antipsychotic or sedative medications, favouring deprescribing if possible.	Continue anti-dementia drugs if ongoing symptomatic benefit.

CFS = Clinical Frailty Scale,[9] BP = blood pressure, NNT = number needed to treat, ARNI = angiotensin receptor neprilysin inhibitor, ACEi = ACE inhibitor, MRA = mineralocorticoid antagonist, SGLT2i = sodium glucose co-transporter 2 inhibitor

General guidance

Use shared decision making (NICE NG197)
Ensure clear communication with patient (or representative): the aim is that each patient is taking only medicines that have real value for them and avoiding medication-related harm. Decisions can be supported by NNT data.[8] But very few people with moderate or severe frailty have been included in clinical trials of medicines. Reduced life expectancy will attenuate prognostic benefits seen in less frail people.

Benefits
Medicines taken for prognostic reasons should be re-evaluated and deprescribing offered.

Risks
Polypharmacy increases the risk of drug adverse effects and therapeutic burden. Frailty increases the risk of adverse drug effects e.g. via weight loss or renal impairment.

Alternatives
Harms may exceed benefits for medicines. Anticholinergic/antipsychotic/sedative medicines are very likely to cause adverse effects. Symptomatic hypo/hyperglycaemia and fluid overload/dehydration should be avoided. Deprescribing should be offered for medicines that are not providing on-going symptomatic benefit.

What if I do nothing?
Not addressing problematic polypharmacy exposes patients to avoidable harm.

Evaluate adherence (NICE CG76). Follow guidance for multimorbidity (NICE NG56) and medicines optimisation (NICE NG5).

Notes

This is version 1 of the guidance, first published November 2025 and due for review in September 2028.

NICE has confirmed (November 2025) that this tool supports NICE guidance on multimorbidity (NG56), medicines adherence (CG76) and medicines optimisation (NG5) and that it is consistent with recommendations in relevant clinical guidelines.

1. A Cochrane review of hypertension treatment for people aged over 80 years found an absolute risk reduction of 2.9% over an average of 2.2 years for the outcome of cardiovascular mortality and morbidity, equating to NNT 35 for 2.2 years (i.e. 77 per year). Trial criteria are likely to have limited recruitment of people living with frailty. For example, the largest trial excluded people with heart failure or dementia, and nursing home residents. Musini et al. 2019 https://doi.org/10.1002/14651858.CD000028.pub3
   An analysis of primary care observational data found a lowest risk of mortality with systolic BP 140–160 mmHg for people aged over 75 years. In addition, categorising people by an electronic frailty index found no survival benefit from antihypertensive medication for people with moderate or severe frailty. A more lenient target than systolic BP 140-160 mmHg may be appropriate for some people living with frailty who are experiencing adverse drug effects or therapeutic burden. Masoli et al. 2020 https://doi.org/10.1093/ageing/afaa028 There is a high prevalence of white coat effect, being present in around a third of people with hypertension. de la Sierra et al. 2017 https://doi.org/10.1097/HJH.0000000000001493
   Assessing average BP over a series of readings, home BP monitoring, or 24-hour ambulatory measurements can reduce the risk of inadvertent overtreatment.
   Due to higher risk of orthostatic hypotension, alpha-blockers, beta-blockers and centrally-acting medicines are usually the first considered for deprescribing.

2. NICE guidance for hypertension in adults [NG136 https://www.nice.org.uk/guidance/ng136] advises also measuring BP one minute after standing for people with symptoms suggestive of orthostatic hypotension, falls, or type 2 diabetes, and all people aged over 80. The lower value obtained should guide therapeutic decisions. Orthostatic hypotension is common, affecting around 25% of people aged over 85 or living in residential care. Gilani et al. 2021 https://doi.org/10.1136/bmj.n922
   Not checking for orthostatic hypotension risks inadvertent overtreatment.

3. In England, the Quality Outcomes Framework 2024/25 indicator DM021 sets a target HbA1C 75 mmol/mol or less for people with moderate to severe frailty. Limited life expectancy reduces the risk of developing vascular complications. The risk of hypoglycaemia can be reduced by setting more lenient targets. Episodes of hypoglycaemia expose people to avoidable harm, including the risk of developing dementia. Kim et al. 2020 https://doi.org/10.4093/dmj.2018.0260

4. Older people have been underrepresented in clinical trials of statins (8% of participants age over 75, very few aged over 80). A meta-analysis of trial data suggests a smaller absolute risk reduction for people aged over 75 than any other age category. In this group, the NNT per year per mmol/L reduction in LDL cholesterol to prevent a major vascular event being approximately 200. Cholesterol Treatment Triallists' Collaboration 2019 https://doi.org/10.1016/S0140-6736(18)31942-1

5. Guidelines recommend the combination of four medication types for all people with heart failure with reduced ejection fraction: angiotensin receptor blocker plus neprilysin inhibitor (ARNI) [or an ACE inhibitor (ACEi)], beta-blocker, mineralocorticoid receptor antagonist (MRA) and sodium-glucose co-transporter 2 inhibitor (SGLT2i). The average age of relevant trial participants was lower than seen in usual practice and few people with moderate or severe frailty were recruited Woodford et al. 2024 https://doi.org/10.1136/bmj-2023-078188 . As a result, it is hard to balance the potential risks and benefits of these medicine types. Awareness of potential adverse effects for people living with frailty and using a shared decision-making approach can help to individualise care. Fewer than all four medicine classes will be preferable for some people.

   a. ARNI/ACEi — Highest risk of hypotension, may cause hyperkalaemia
   b. Beta-blocker — Smaller effect on BP but can cause orthostatic hypotension
   c. MRA — Risk of dehydration, hyperkalaemia and hyponatraemia
   d. SGLT2i — Risk of dehydration, genital candidiasis and urinary tract infection

6. This recommendation is taken from the NICE multimorbidity guidance [NG56 https://www.nice.org.uk/guidance/ng56]. Bisphosphonates bind to hydroxyapatite crystals to inhibit osteoclast-mediated bone resorption. The molecules remain bound to bone tissue for several years. A key trial that compared continuation of alendronate to switching to a placebo found that there was no significant difference in total clinical fractures between alendronate continuation and placebo over the following 5 years. But there was a lower risk of clinical vertebral fracture (NNT = 34 for 5 years to prevent one fracture). Black et al. 2006 https://doi.org/10.1001/jama.296.24.2927

7. Prolonged exposure to a strong anticholinergic medicine (e.g. bladder anticholinergics, amitriptyline) or a combination of medicines with additive anticholinergic effects (e.g. many antidepressants, antipsychotics, sedatives, opiates) is associated with a doubling of the risk of developing dementia. Taylor-Rowan et al. 2021 https://doi.org/10.1002/14651858.CD013540.pub2

8. GP Evidence https://gpevidence.org/

9. Clinical Frailty Scale https://www.dal.ca/sites/gmr/our-tools/clinical-frailty-scale.html . The CFS is not suitable for use in people aged under 65 or people with stable single system disabilities.

Advance Care Planning

Advance Care planning

- Triggers for discussion:
  - **CFS ≥5-6**
  - Recurrent admissions
  - Falls / delirium
  - Increasing dependence
  - “Not coping at home”
  - Care home entry
- Many frail patients have multiple admissions in last year of life (GIRFT)
- What matters most to you? What would you want to avoid?
- ACP: aligns with patients wishes, reduces unwanted admissions, improves end of life care

ReSPECT Recommended Summary Plan for Emergency Care and Treatment

1. This plan belongs to:

Preferred name	Full name
Date completed	Date of birth
	Address
	NHS/CHI/Health and care number

The ReSPECT process starts with conversations between a person and a healthcare professional. The ReSPECT form is a clinical record of agreed recommendations. It is not a legally binding document.

2. Shared understanding of my health and current condition

Summary of relevant information for this plan including diagnoses and relevant personal circumstances:

Details of other relevant care planning documents and where to find them (e.g. Advance or Anticipatory Care Plan; Advance Decision to Refuse Treatment or Advance Directive; Emergency plan for the carer):

I have a legal welfare proxy in place (e.g. registered welfare attorney, person with parental responsibility) - if yes provide details in Section 8 ☐ **Yes** ☐ **No**

3. What matters to me in decisions about my treatment and care in an emergency

Living as long as possible matters most to me	**Quality of life and comfort matters most to me**
What I most value:	What I most fear / wish to avoid:

4. Clinical recommendations for emergency care and treatment

Prioritise extending life	or	Balance extending life with comfort and valued outcomes	or	Prioritise comfort
clinician signature		clinician signature		clinician signature

Now provide clinical guidance on specific realistic interventions that may or may not be wanted or clinically appropriate (including being taken or admitted to hospital +/- receiving life support) and your reasoning for this guidance:

CPR attempts recommended Adult or child	For modified CPR **Child only, as detailed above**	CPR attempts **NOT** recommended Adult or child
clinician signature	clinician signature	clinician signature

www.respectprocess.org.uk

Survival based on age

NON-SHOCKABLE IN-HOSPITAL CARDIAC ARREST (UNWITNESSED)								
Duration of CPR (min):	0	10	20	30	40	50	60	**Age**
Probability of survival to discharge	15.9%	7.5%	2.9%	1.2%	0.6%	0.4%	0.2%	**<60**
	13.6%	6.5%	2.0%	0.7%	0.3%	0.20%	0.07%	**60-79**
	8.8%	4.0%	1.2%	0.4%	0.20%	0.08%	0.02%	**>79**

NON-SHOCKABLE IN-HOSPITAL CARDIAC ARREST (UNWITNESSED)								
Duration of CPR (min):	0	10	20	30	40	50	60	**Age**
Probability of good functional outcome	10.3%	4.1%	1.5%	0.5%	0.3%	0.2%	0.1%	**<60**
	8.0%	3.3%	0.9%	0.4%	0.1%	0.09%	0.04%	**60-79**
	4.6%	1.7%	0.5%	0.1%	0.07%	0.02%	0.00%	**>79**

> Resuscitation. 2019 Oct:143:208–211. doi: 10.1016/j.resuscitation.2019.07.021. Epub 2019 Jul 29.

Frailty is associated with adverse outcome from in–hospital cardiopulmonary resuscitation

Chris Wharton [1], Elizabeth King [2], Andrew MacDuff [3]

Affiliations + expand

PMID: 31369792 DOI: 10.1016/j.resuscitation.2019.07.021

Abstract

Aim: To assess whether frailty was associated with cardio–pulmonary resuscitation (CPR) outcome in a UK setting.

Method: Retrospective review of prospectively collected data on in–hospital cardio–respiratory arrests between 1/1/17 and 31/12/17. Clinical Frailty Scale (CFS) scores were assigned from notes review, patients with CFS scores ≥6 signified moderate or greater frailty.

Results: There were 179 in–hospital cardiac arrest cases where the CFS could be calculated. The median age on admission was 74 (mean 71, range 27–102), 110 patients were male and 69 female. The initial rhythm was non–shockable in 64% of cases. In 49% of cases return of spontaneous circulation (ROSC) was achieved, 22% of the study population survived to hospital discharge. Moderate or greater frailty was present in 31.3% of patients. Return of spontaneous circulation (ROSC) was achieved in 56.1% of patients with a CFS score of 1–5 and 32.1% with scores 6–9 ($p < 0.001$). Survival to hospital discharge was also associated with frailty, being seen in 31.7% of CFS 1–5 patients but only in 1.8% of CFS 6–9 patients ($p < 0.001$). In multivariable analysis adjusting for age, presenting rhythm and admitting specialty the effect of frailty on survival to discharge remained significant ($p = 0.044$).

Conclusion: Patients with moderate or greater frailty as determined by CFS score are unlikely to survive to hospital discharge even if ROSC occurs following CPR. This should be considered when making resuscitation status and ceiling of care decisions in this patient group.

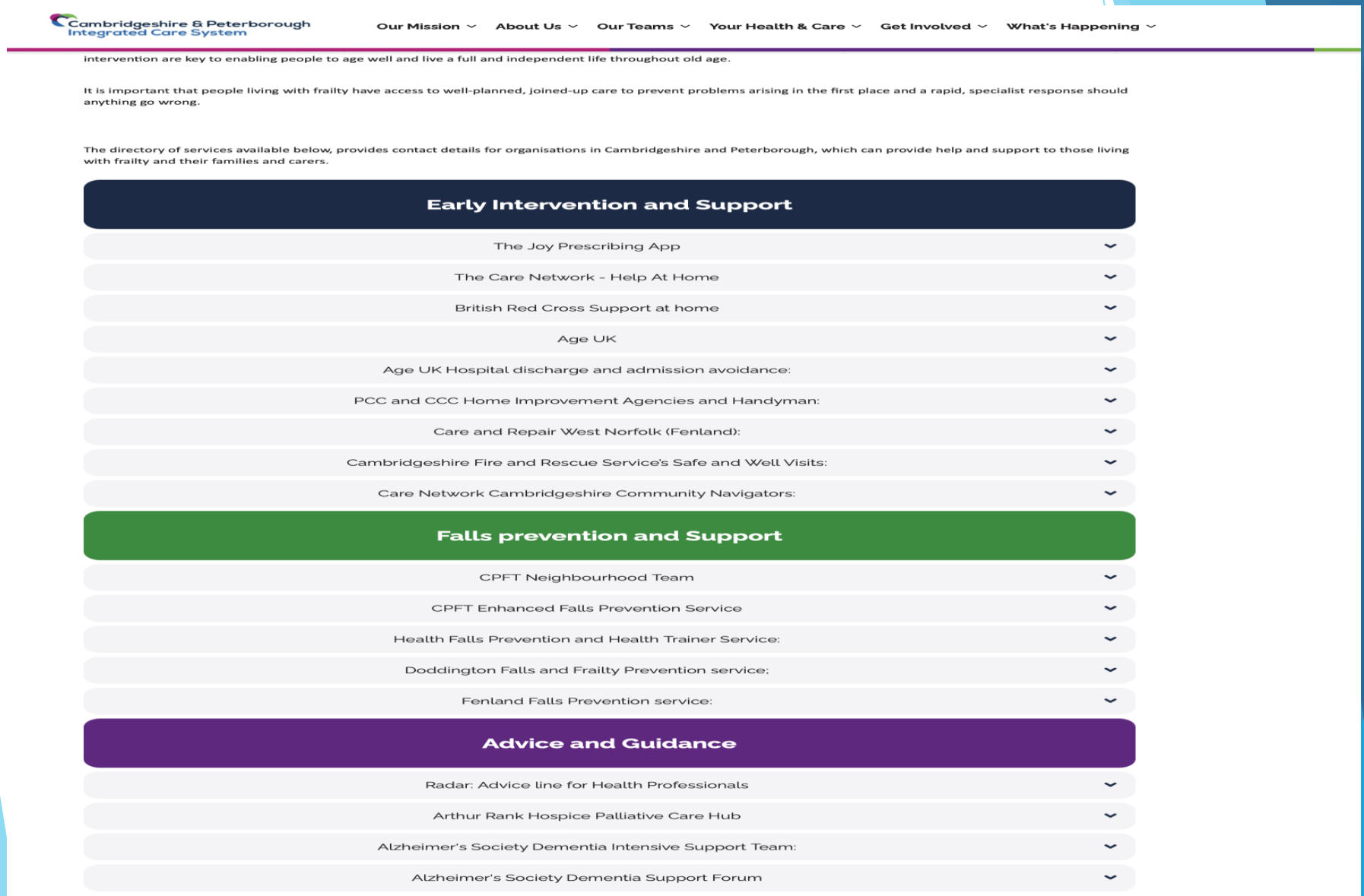
Keywords: Cardiopulmonary resuscitation (CPR); Outcome.

CFS vs CPR Outcomes (AI based Estimate)

CFS Group	Frailty Category	ROSC (approx)	Survival to discharge	Return to baseline / good function
1-3	Fit / managing well	~40-60%	**30-45% survive**	**20-30%** return to baseline
4	Vulnerable	~30-50%	**20-35% survive**	**15-25%**
5	Mild frailty	~25-40%	**10-20% survive**	**5-15%**
6	Moderate frailty	~20-35%	**5-15% survive**	**<10%**
7-9	Severe frailty	~10-25%	**<5-10% survive**	**Rare (<5%)**

Local services

What services are available?



Cambridgeshire & Peterborough Integrated Care System

Our Mission | About Us | Our Teams | Your Health & Care | Get Involved | What's Happening

intervention are key to enabling people to age well and live a full and independent life throughout old age.

It is important that people living with frailty have access to well-planned, joined-up care to prevent problems arising in the first place and a rapid, specialist response should anything go wrong.

The directory of services available below, provides contact details for organisations in Cambridgeshire and Peterborough, which can provide help and support to those living with frailty and their families and carers.

Early Intervention and Support

- The Joy Prescribing App
- The Care Network - Help At Home
- British Red Cross Support at home
- Age UK
- Age UK Hospital discharge and admission avoidance:
- PCC and CCC Home Improvement Agencies and Handyman:
- Care and Repair West Norfolk (Fenland):
- Cambridgeshire Fire and Rescue Service's Safe and Well Visits:
- Care Network Cambridgeshire Community Navigators:

Falls prevention and Support

- CPFT Neighbourhood Team
- CPFT Enhanced Falls Prevention Service
- Health Falls Prevention and Health Trainer Service:
- Doddington Falls and Frailty Prevention service:
- Fenland Falls Prevention service:

Advice and Guidance

- Radar: Advice line for Health Professionals
- Arthur Rank Hospice Palliative Care Hub
- Alzheimer's Society Dementia Intensive Support Team:
- Alzheimer's Society Dementia Support Forum

Frailty - Key Take Home Messages

- Not a diagnosis, not a disease, no single agreed definition
- A syndrome of vulnerability — rather than a single disease.
- Frailty is common and increasing
- Minor stressors can cause major deterioration
- Frailty helps identify people who are **at greater risk of adverse outcomes than others of the same chronological age.**
- This allows healthcare to shift towards **person-centred and goal-oriented care** rather than purely disease-focused treatment
- **Patients living with frailty present a growing challenge for healthcare — and one we must actively address**

Final thought….

Primary Care is Best
(placed)

Any questions?

References

- https://gettingitrightfirsttime.co.uk/medical_specialties/geriatric-medicine/
- Clegg A et al. Frailty in elderly people. Lancet. 2013.
- Rockwood K et al. Accumulation of deficits model. J Gerontol. 2007.
- Barnett K et al. Epidemiology of multimorbidity. Lancet. 2012.
- Clegg A et al. Electronic Frailty Index. Age and Ageing. 2016.
- NHS England. Polypharmacy and medicines optimisation. 2018.
- Scottish Government. Polypharmacy Guidance. 2018–2023.
- Payne RA et al. Polypharmacy prevalence. BMC Medicine. 2014.

Useful Resources

- Geriatric Medicine – GIRFT Programme National Speciality Report (https://gettingitrightfirsttime.co.uk/medical_specialties/geriatric-medicine/)
- BGS Silver Book II - https://www.bgs.org.uk/resources/resource-series/silver-book-ii
- https://www.acbcalc.com – anticholinergic burden calculator
- Pragmatic prescribing to reduce harm for older people with moderate to severe frailty - https://www.bgs.org.uk/PragmaticPrescribing
- https://www.cpics.org.uk/cambridge-and-ely