

FRAILTY- IT'S EVERYONE'S BUSINESS

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A Guide for
Non-Specialists



Northern Ireland

mdta

Medical & Dental Training Agency

Introduction and Purpose

Frailty is a chronic condition related to the ageing process in which multiple body systems lose their in-built reserves. Older adults who are living with frailty are less able to cope when stressor events strike, such as acute illness. 50% of adults over 85 are thought to live with frailty in the United Kingdom (*Age UK, 2022*). Optimal management of frailty requires a thoughtful, compassionate, and person-centred approach to the multifaceted underlying factors which are driving the frailty process. These can range from medical factors such as anaemia or chronic kidney disease to complex social issues such as poor home environment or lack of social support.

Managing frailty can no longer be considered the preserve of geriatricians, thus it is necessary that all medical professionals working with older persons living with frailty, have good knowledge of managing frailty appropriately. Frailty is best addressed by multi-disciplinary teams which bring together all the necessary perspectives. The most important perspective of all is that of the person living with frailty. As such, it is essentially any plan to address frailty must consider the thoughts, wishes and values of the person living with frailty at the centre.

This guide has been prepared to empower all junior doctors working with older persons living with frailty. Information on common frailty-associated issues such as delirium, osteoporosis and immobility are included in this document, although this is not an exhaustive guide on managing all frailty related problems, which are manifold. If you have a person in your care and you feel you require some help from your local friendly geriatrician, never hesitate to pick up the phone. We hope the information contained in this document helps you, wherever you are working, to improve the lives of older persons living with frailty.

Foreword

A new version of the UK Foundation curriculum was introduced in August 2021, and for the first time, includes 15 Specific Areas of Core Learning that should be taught to all Foundation Doctors. One of these topics is 'Frailty' and another is 'Integration of acute illness into chronic disease management and multiple comorbidities'.

Foundation Doctors in Northern Ireland have had the benefit of a Generic Skills teaching programme for many years. This programme of learning was therefore adapted to encompass the required core topics in the 2021 Foundation Programme curriculum, and was renamed 'FLiGHT' (Foundation Learning in Generic Hot Topics).

FLiGHT Module 11 is entitled: 'Acute on Chronic Illness and Frailty' and was kindly developed and delivered by Dr William McKeown and Dr Rosemary Kelly. It has been received extremely well by our F2 doctors and evaluation from its first year reflects the expertise of the two facilitators both in topic material and in teaching style. William went on to win the Best Platform Prize for the presentation of their work at the NI British Geriatric Society in June 2022.

This guide is an invaluable resource for both F1 and F2 doctors as well as other non-specialist doctors. It is easily readable, highly relevant and resonates very much with my own recent close personal experience of a frail elderly person's journey through all the care settings mentioned. The central message from John's campaign seems especially important for every one of us as healthcare professionals.

I would like to thank Lynne, Rosemary, William and Jamie for putting this booklet together and for making it available to all of our Foundation Doctors. It will greatly assist core learning during their two-year training programme with the Northern Ireland Foundation School.



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**Caring for Older Persons Living
with Frailty
A Guide for Non-Geriatricians**

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The 'F' Word

Frailty is a “clinically recognisable state of increased vulnerability resulting from age associated decline in reserve and function across multiple physiologic systems such that the ability to cope with everyday or acute stressors is compromised” (Leng, Chen and Mao, 2014)

Roughly translated, when something happens to older persons living with frailty, they will be sicker for longer than non-frail persons and it will take them longer to recover. Frailty includes mental health as well as physical health, for example vulnerability to delirium and depression.

30-40% adults admitted via an acute medical take are living with frailty (Knight et al., 2022).

Frailty identification in Northern Ireland is via the **Rockwood Clinical Frailty Scale** (See Below). The **Rockwood Clinical Frailty Scale** is only validated for those aged >65 years (Rockwood and Theou, 2020).

CLINICAL FRAILITY SCALE

	1	VERY FIT	People who are robust, active, energetic and motivated. They tend to exercise regularly and are among the fittest for their age.
	2	FIT	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 , even if occasionally symptomatic, but often are not regularly active beyond routine walking.
	4	LIVING WITH VERY MILD FRAILITY	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 “slowed up” and/or being tired during the day.
	5	LIVING WITH MILD FRAILITY	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.

	6	LIVING WITH MODERATE FRAILITY	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.
	7	LIVING WITH SEVERE FRAILITY	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	LIVING WITH VERY SEVERE FRAILITY	Completely dependent for personal care and approaching 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 living with severe frailty . (Many terminally ill people can still exercise until very close to death.)

SCORING FRAILITY 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.



Clinical Frailty Scale ©2005–2020 Rockwood, Version 2.0 (EN). All rights reserved. For permission: www.geriatricmedicine-research.ca
Rockwood K et al. A global clinical measure of fitness and frailty in elderly people. CMAJ 2005;173:489–495.

A higher Rockwood Score (also known as Clinical Frailty Score – CFS) is associated with an increase in adverse events during hospitalisation including death, falls, delirium, deconditioning and need for 24-hour care post discharge (Rockwood et al., 2005).

Frailty is not a static condition and progresses with time. Earlier stages of frailty can be reversed with appropriate support and intervention (Rockwood CFS 4-5). Interventions must therefore be tailored to where people are on their own particular 'frailty journey'. Treating advanced frailty requires different medical management with different end goals.

'Frailty syndromes' refers to presentations or symptom complexes which tend to only appear in people living with frailty. Also known as 'Geriatric Giants' (Isaacs, 1965), these can be remembered as the 4 I's:

- Immobility
- Instability
- Incontinence
- Impaired intellect/memory

The presence of any of the above syndromes should always prompt you to ask, **'Could this person be living with Frailty?'**

Frailty Matters to Me – Communicating Positively About Frailty

Good communication about frailty involves genuine two way dialogue with the person living with frailty as well as their family. Only by putting the views and values of patients and their families at the heart of decision making, can the most effective management plans be developed. Conversely by marginalising the views of people living with frailty, sub-optimal care is much more likely. It is essential stigmatising language and ‘elderspeak’ is avoided when communicating, for example using overly simplified or derogatory terminology such as ‘crumbly’ or ‘a wee bladder infection’.

Mandy Andrew and colleagues proposed several principles for including older people in service development, but these principles certainly could be extended to all communication encounters with people living with frailty (Andrew et al., 2021). These principles include:

- Involve older people from the outset and draw on lived experiences of frailty
- Create an ethos of mutual respect and openness
- Support the emotional and physical needs of the older citizen.

When a person living with frailty is unable to fully communicate for themselves, for example in advanced dementia, communication with the person’s family and loved ones becomes especially critical. Often family who have known the person living with frailty best have valuable insights which can guide management decisions and highlight issues early. *John’s Campaign* is a group which campaigns for the right to stay with people with dementia and for the right of people with dementia to be supported by their family carers:

“John’s Campaign has a single, simple message: no one should enforce disconnection between family carers and those who need their expert knowledge and their love. This principle is applicable everywhere: in the doctor’s surgery, the A&E ward, the dementia assessment unit and the care home. Families are never “visitors” to a person with dementia; they are an integral part of that person’s life and identity and often their last, best means of connection with the world.” (John’s Campaign, 2022)



STAY
WITH ME

More information about *John’s Campaign* can be found at
<https://johnscampaign.org.uk/about>

**Positive Frailty Communication Puts
People living with Frailty and Their
Loved Ones in The Heart of Discussions**

Comprehensive Geriatric assessment (CGA)

One of the best evidenced interventions for frailty is the **Comprehensive Geriatric Assessment**.

What is it?

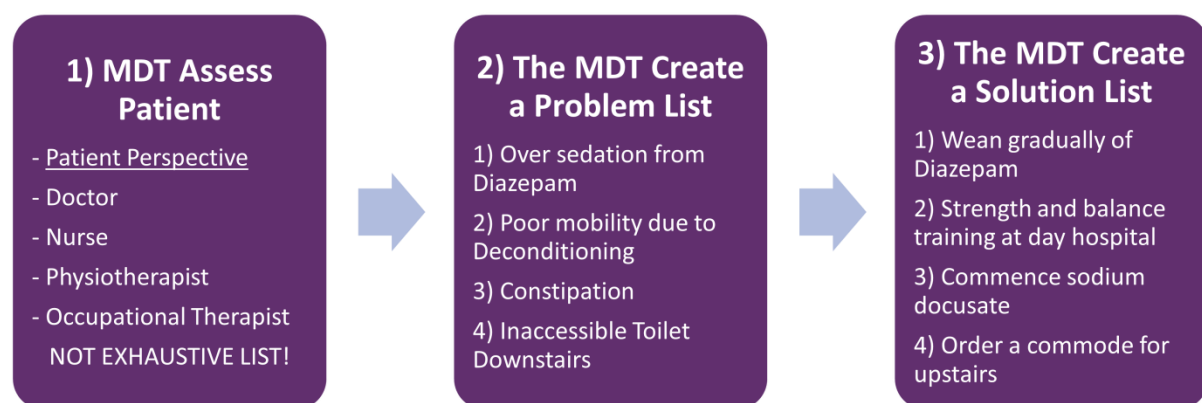
A multidisciplinary team (MDT) diagnostic and treatment process that identifies medical, psychosocial, and functional limitations of an older person living with frailty in order to develop a coordinated plan to maximize overall health with aging (Ellis and Langhorne, 2005).

What does it do?

CGA is based on the premise that a systematic evaluation of an older person living with frailty by a team of health professionals may identify a variety of treatable health problems and lead to better health outcomes.

What does it assess?

CGA evaluates multiple issues, including physical, cognitive, affective, social, financial, environmental, and spiritual components that influence health and wellbeing.



In practice CGA involves 3 practical steps. The MDT perform a holistic assessment with the person identifying their goals for intervention. This assessment generates a problem list from which the person and MDT devise a solution list (See above).

CGA takes place throughout a hospital admission. It is a process that requires input from the person (or their advocate) and entire MDT including medical, nursing, speech & language therapy, physiotherapy, occupational therapy, and social work professionals. CGA can also take place in Day-Hospitals and in the community (Ellis and Langhorne, 2005).

The Evidence for CGA

It is an evidence based intervention known to reduced mortality and care home admission at up to one year post discharge. CGA is also known to have a positive impact on patient-focused outcomes such as quality of life and improved cognition. CGA has a *Number Needed to Treat* of 13 or in other words treating 13 people living with frailty with CGA prevents 1 death or premature institutionalisation compared with usual care (Ellis et al., 2011) This makes CGA more effective than many other common interventions such as Bisphosphonates in osteoporosis (Ringe and Doherty, 2009) and Aspirin in Acute Myocardial Infraction (Tabas, 2005).



CGA reduces hospital admissions and admissions to nursing homes for up to 1 year after admission

Delirium

Delirium is an acute confusional state and is considered a medical emergency. All persons with risk factors for delirium (See *Figure 1*) should be assessed, for example using a 4AT (see *Figure 2*), when admitted to hospital (SIGN, 2019). Common features of delirium include:

- Fluctuating course
- Poor Attention
- Altered Perception (e.g. visual hallucinations)
- Poor orientation to the environment
- Hyperactive or Hypoactive affect

**Assess All Patients with Any Risk Factor for
Delirium With 4AT When Admitted to
Hospital**

Why does delirium matter? – Because it is common and deadly!

- Delirium affects 30% of inpatients on Care of the Elderly wards (Inouye, Westendorp and Saczynski, 2014)
- Persons with delirium are significantly more likely to develop dementia
- Persons with dementia who develop delirium increase their risk of death and further cognitive decline (Fong et al., 2015).
- The 6-month mortality following hypoactive delirium is 32% (Robinson et al., 2011)
- Prevention of delirium is possible in 30-40% of persons (Fong et al., 2015)

Management of delirium

Delirium is an acute medical emergency and requires a prompt clinical review. Management involves identification and resolution of the root cause of delirium while also offering supportive care (bearing in mind that there is often more than one cause!).

- Consider and treat acute, life threatening causes of delirium (hypoxia, hypotension, hypoglycaemia, drug intoxication or withdrawal)
- Consider and treat other underlying causes using Fig.1 to assist you

Causes of delirium 'PINCH ME'	Risk factors for Delirium
Pain	Dementia
Infection	Severe acute illness
Nutrition	Hip fracture
Constipation/urinary retention	Polypharmacy
Hydration	Visual impairment
Medication (see polypharmacy)	Hearing impairment
Electrolytes	Previous delirium
Hormonal imbalance (thyroid)	Chronic illness
AKI/ Liver injury	Immobility
Drug overdose/withdrawal	Busy ward environment
Hypoxia	Falls
Lack of sleep	Head injury
Environmental changes	Opioids
Hypoglycaemia	Hospitalisation
	Age >65

Figure 1. Causes and Risk Factors for Delirium (SIGN, 2019), (British Geriatrics Society, 2020)

- Involve nursing staff (and NOK) in these plans, nursing staff are essential to effective delirium management on a ward. Consider moving a person to a quiet side room on a busy ward.
- Collateral information gained via a telephone conversation is often the quickest means of making the important distinction between persons with delirium and those with dementia.
- CT brain should **NOT** be routinely considered in persons with delirium unless presenting with:
 - New focal neurological signs
 - Reduced GCS not adequately explained by another cause
 - History of recent falls
 - Head injury PRIOR to delirium
 - Anticoagulation therapy (SIGN 2019)
- Aim to prevent complications of delirium such as falls, immobility, pressure sores, dehydration.
- Reassess for resolution through the hospital stay and prior to discharge
- Educate Families – Delirium is often very distressing to families as well as the person with delirium! Consider giving families written information about delirium like the booklet below (See Figure 3).

How would you feel if your loved one suddenly became a completely different person?



(label)

Patient name:

Date of birth:

Patient number:

**Assessment test
for delirium &
cognitive impairment**

Date: _____ Time: _____

Tester: _____

CIRCLE

[1] ALERTNESS

This includes patients who may be markedly drowsy (eg, difficult to rouse and/or obviously sleepy during assessment) or agitated/hyperactive. Observe the patient. If asleep, attempt to wake with speech or gentle touch on shoulder. Ask the patient to state their name and address to assist rating.

Normal (fully alert, but not agitated, throughout assessment)	0
Mild sleepiness for <10 seconds after waking, then normal	0
Clearly abnormal	4

[2] AMT4

Age, date of birth, place (name of the hospital or building), current year.

No mistakes	0
1 mistake	1
2 or more mistakes/untestable	2

[3] ATTENTION

*Ask the patient: "Please tell me the months of the year in backwards order, starting at December."
To assist initial understanding one prompt of "what is the month before December?" is permitted.*

Months of the year backwards	Achieves 7 months or more correctly	0
	Starts but scores <7 months / refuses to start	1
	Untestable (cannot start because unwell, drowsy, inattentive)	2

[4] ACUTE CHANGE OR FLUCTUATING COURSE

Evidence of significant change or fluctuation in: alertness, cognition, other mental function (eg, paranoia, hallucinations) arising over the last 2 weeks and still evident in last 24hrs

No	0
Yes	4

4 or above: possible delirium +/- cognitive impairment
1-3: possible cognitive impairment
0: delirium or severe cognitive impairment unlikely (but delirium still possible if [4] information incomplete)

4AT SCORE

GUIDANCE NOTES

Version 1.2. Information and download: www.the4AT.com

The 4AT is a screening instrument designed for rapid initial assessment of delirium and cognitive impairment. A score of 4 or more suggests delirium but is not diagnostic: more detailed assessment of mental status may be required to reach a diagnosis. A score of 1-3 suggests cognitive impairment and more detailed cognitive testing and informant history-taking are required. A score of 0 does not definitively exclude delirium or cognitive impairment: more detailed testing may be required depending on the clinical context. Items 1-3 are rated *solely on observation of the patient at the time of assessment*. Item 4 requires information from one or more source(s), eg, your own knowledge of the patient, other staff who know the patient (eg, ward nurses), GP letter, case notes, carers. The tester should take account of communication difficulties (hearing impairment, dysphasia, lack of common language) when carrying out the test and interpreting the score.

Alertness: Altered level of alertness is very likely to be delirium in general hospital settings. If the patient shows significant altered alertness during the bedside assessment, score 4 for this item. **AMT4 (Abbreviated Mental Test - 4):** This score can be extracted from items in the AMT10 if the latter is done immediately before. **Acute Change or Fluctuating Course:** Fluctuation can occur without delirium in some cases of dementia, but marked fluctuation usually indicates delirium. To help elicit any hallucinations and/or paranoid thoughts ask the patient questions such as, "Are you concerned about anything going on here?"; "Do you feel frightened by anything or anyone?"; "Have you been seeing or hearing anything unusual?"

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Figure 2 – The 4AT Delirium Screening Tool (www.the4AT.com)



Figure 3 – Delirium Information for Families (HSCNI Public Health, 2019)

De-Escalation of Delirium

Some persons may become physically or verbally aggressive when delirious. Remember that they are confused and extremely frightened during this state and you must approach this situation sensitively.

‘Agitation exists on a continuum, e.g., from anxiety to high anxiety, to agitation, to aggression.’ When de-escalated effectively, the agitated person can be calmed into a more cooperative state without the use of pharmacological aids (Richmond et al., 2012).

Pointers for De-Escalation in the Aggressive Delirious Person

- Give the person plenty of space.
- Approach the person from the front at their eye level.

- Physical restraint reinforces the person's perception that they are in danger, it should be avoided at all costs. Remove from the bedspace any objects which could be used as weapons (thus avoiding the potential need for restraint).
- Only 1 person should be talking to the delirious person at one time. Reduce extremes of sound such as people shouting, Speak in a calm voice.
- Introduce yourself to the person, provide orientation and reassurance of safety. Be concise when providing explanations.
- Listen to what the person has to say, find a way to respond that agrees with or validates the person's position.
- Be prepared that this may take time (Richmond et al., 2012)

Sedation

Think before you sedate! **Do not routinely prescribe anti-psychotics or sedatives to persons with dementia or delirium** – it leads to an increased mortality and few benefits (SIGN, 2019).

It should NOT be used for persons shouting out or wandering (it will increase falls risk, not decrease it).

Medication should only be used in this way if the person is physically aggressive and a risk to themselves or others. If you are going to use sedation, record why, advise family, and start low and go slow with doses, preferably half doses to begin with.

Refer to trust **rapid tranquilisation guidelines** for up to date guidance on sedation.

**NEVER use Haloperidol in persons
with Parkinson's Disease or Lewy
Body Dementia**

Capacity

Mental capacity refers to a person's ability to make a decision for themselves. In order to be said to 'have capacity', a person must be able to demonstrate all of the following (Mental Capacity Act, 2005):

- Understanding of relevant information
- Ability to retain information long enough to make the decision
- Ability to weigh up the information to make the decision
- Ability to communicate that decision)

Capacity is **decision and time specific** and therefore a person cannot be said to simply "lack capacity." A person may lack capacity to make a particular decision (e.g. place of care on discharge) but may still retain capacity to make other decisions (e.g. what they would like to watch on television)

A hostile environment, such as a busy Emergency Department, may not provide the best setting for a person to demonstrate their capacity. Therefore, when assessing capacity, steps should always be taken to support the person to demonstrate capacity. Simple measures can include:

- Have a quiet and well-lit setting
- Give information in simple verbal or written format
- Give ample time for the conversation and ensure it is not rushed
- Correct all sensory deficits as best as possible, for example with hearing aids or glasses.
- Assess capacity at the time of day where a person is brightest

If a person is thought to lack capacity to make a particular decision but may regain the ability (e.g. in delirium) then the decision should be delayed (if possible) until they are able to make the decision themselves.

If a person lacks capacity, it may be appropriate to complete a **Deprivation of Liberty Safeguards (DOLS)** form in line with the Mental Capacity Act (nhs.uk - Mental Capacity Act, 2005). If you are unsure whether you need to complete DOLS forms for a person, you should ask yourself the 'acid test' questions:

1) Is the person subject to continuous supervision and control?

And

2) Is the person free to leave?

Falls

Prof Cameron Swift - 'A fall doesn't tell you what is wrong, merely that something is wrong' - hence the need for holistic, comprehensive assessment.

'Fall Query Cause' is not a Diagnosis!

A history of the falls in the past 6 months is vital:

- A clear history of the fall - What exactly were they doing?'
- Any cause they can identify?
- Were they using their walking aid?
- Any history of presyncope/syncope/vertigo?
- Any history of cognitive impairment/delirium?

Differential diagnosis of falls is extensive and often Multifactorial

General	Mechanical (e.g. poor footwear) Polypharmacy	Request physiotherapy review Review Kardex
Cardiovascular	Arrhythmia (Inc. bradycardia) Orthostatic hypotension Valvular heart disease	ECG +/- 24 Hr tape Lying and standing blood pressure ECHO
Neurological	Stroke Peripheral neuropathy Visual impairment	Consider CT brain Neurological examination Vision testing
Endocrine	Hypoglycaemia Hypothyroidism	Blood sugar monitoring Review of hypoglycaemic medications Thyroid function testing
Musculoskeletal	Arthritis Muscle atrophy	Detailed MSK examination
Vestibular	BPPV Labyrinthitis	Detailed history Epley manoeuvre (specialist)
Urinary	UTI Catheter	Urine dip +/- urine culture

Figure 4 – Common Causes of Falls (Falls - Assessment, Investigation & Management | Geeky Medics, 2022)

Orthostatic Hypotension is one of the most common causes of falls in older people. This is defined as a systolic blood pressure drop of >20 mmHg when transitioning from lying to standing (Bradley and Davis, 2003). The **CORRECT** way to obtain a lying/standing blood pressure is:

- Measure BP lying down (not sitting!)
- 1 minute after standing up
- 3 minutes after standing up

Look for causes of orthostatic hypotension (dehydration/antihypertensive medication/autonomic dysfunction). After all causative factors have been addressed, give lifestyle advice:

- 1) ALWAYS sit if you are lightheaded
- 2) Get up slowly in stages from lying position
- 3) Ensure good fluid intake
(>1.5L/day provide no contra-indications))
- 4) Ensure adequate dietary salt
- 5) Consider taking additional caffeine in diet



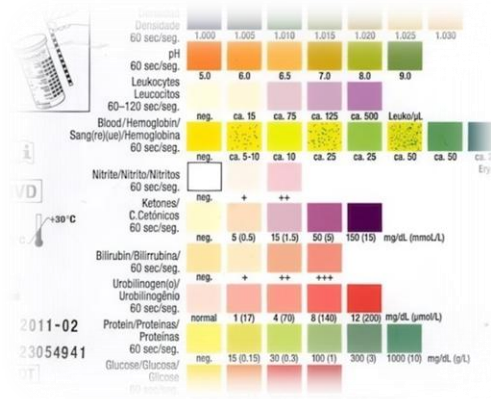
If treating underlying causes and lifestyle advice fail, consider medication to boost blood pressure such as midodrine (Never take at night – risk of supine hypertension!) or fludrocortisone. The priority with orthostatic hypotension is management of symptoms, therefore it is often better not to aggressively treat if the patient is asymptomatic (Bradley and Davis, 2003).

Often a higher blood pressure can be tolerated in older persons living with frailty. Several observational trials looking at frailer populations showed a lower mortality in persons with higher blood pressure (160-180 systolic) likely at least partially due to a reduction in falls (Staessen et al., 1989), (Boshuizen, Izaks, van Buuren and Ligthart, 1998). The lower mortality associated with higher BP does not make this a target for treatment but rather reassures that persons living with frailty do not come to harm from having higher blood pressure.

Urine

Common pitfalls regarding urinalysis:

- 50% of female residents in care homes have asymptomatic bacteriuria which doesn't require treatment (Schulz, Hoffman, Pothof and Fox, 2016).
- Change in colour & smell of urine only has a positive predictive value of 47% for bacteriuria & pyuria (Juthani-Mehta et al., 2009).
- For persons with a positive urine dipstick for leucocytes or nitrites only 45% had bacteria
- Do not use urine dip to diagnose a catheter associated UTI – It will be positive (Schulz, Hoffman, Pothof and Fox, 2016).
- **However, a negative urine dipstick has a negative predictive value of up to 100% (Stovall et al., 2013), (Deville et al., 2004)**



Catheters carry significant risk of infection and should only be considered for specific indications in older persons living with frailty. The main indications are:

- Management of pressure damage
- Acute urinary retention.

AKI in an older person living with frailty and constipation – Always do a bladder scan!

Constipation is a common cause of urinary retention & should be treated before catheter removal.

Constipation

Constipation is generally characterised by unsatisfactory defecation due to infrequent bowel emptying or difficulty with stool passage, which may lead to incomplete evacuation. Often laxatives are prescribed for constipation.

Commonly prescribed laxatives are shown below (NICE, 2022).

Type	Examples	Advantages	Disadvantages
Bulk formers Retain fluid and increase faecal mass stimulating peristalsis	Ispaghula	First line in adults who have poor dietary fibre	Can cause bloating, not good for elderly if they struggle to drink enough
Stool softeners Reduce surface tension in stool allowing water to penetrate	Docusate	12 hrs to effect. Does not require increased fluid intake	Can cause abdominal cramps or diarrhoea
Stimulant Stimulates peristalsis	Senna Bisacodyl Sodium picosulfate	Beneficial in drug induced constipation	Avoid in obstruction. Often requires softener as well
Osmotic Increases fluid in large bowel, softening and inducing peristalsis	Lactulose Movicol Laxido Phosphate enema	Softens stool	Adequate oral hydration is required to prevent dehydration

It can often be difficult to know what regimen of laxatives to start. If obstruction has been excluded, below are some suggested approaches to laxative regimens based on person characteristics (NHS Rotherham Clinical Commissioning Group, 2015).

	<i>1st line</i>	<i>2nd line</i>	<i>3rd line</i>
<i>Drug induced constipation</i>	Stimulant	Softener	Osmotic
<i>Chronic constipation (>12 weeks)</i>	Bulk forming	Softener	Stimulant
<i>Constipation in frailty</i>	Softener	Stimulant	Osmotic

If laxatives are failing, always perform a PR exam and consider enemas. Poor anal tone often makes it difficult for an older person living with frailty to pass bowel motions.

Polypharmacy and De-prescribing

As people grow older and frailer, it may become the case that medication which once offered a benefit in terms of quality or quantity of life, no longer does so. Frailer persons have increased susceptibility to side effects of medication and may not be likely to live long enough to derive a survival benefit from a drug. Therefore, it is important that as persons become frailer, their medications are thoughtfully reviewed on a continuous basis.



One-third of people aged 65 - 74 years live with multimorbidity and take five or more regular medicines (polypharmacy), increasing to 50% in over 85 year old (NHS Digital, 2017). Being on more than four medications is associated with an increased risk of falls (Ziere et al., 2006). It is therefore always important to ask for each medication prescribed to a frail adult – **Is this doing more harm than good?**

Several tools exist to help identify medications which might be potentially inappropriate. One such tool is the STOPPFrail tool which is shown in *Figure 5*. Other deprescribing tools include STOPP/START (O'Mahony et al., 2014) and the Beers Criteria (2019 American Geriatrics Society Beers Criteria Update Expert Panel, 2019).

The STOPPFRAIL Criteria

End-stage irreversible pathology or poor one year survival

Severe functional or cognitive impairment

Symptom control priority rather than disease progression

If the above applies, consider stopping the medications listed below



Figure 5 – The STOPPFrail Criteria (Lavan, Gallagher, Parsons and O'Mahony, 2017)

Anticholinergic-Burden

Another useful approach to improving the appropriateness of frail persons' prescriptions is to reduce the number of medications which inhibit acetylcholine. Inhibition of acetylcholine leads to many side effects including confusion, dry-mouth, tachycardia, and increased falls risk (Feinberg, 1993). By reducing a person's **anti-cholinergic burden**, you can reduce the person's risk of falls and death. Lots of medications have anti-cholinergic activity, but common medications with significant anticholinergic activity include:

- Tolterodine
- Solifenacin
- Amitriptyline

If you want to quantify a person's anti-cholinergic burden – use the **ACB Calculator** which can easily be found online - <http://www.acbcalc.com/>

Good Practice in De-prescribing

Always talk the person or their carer through the changes you are making and agree on a shared approach. If the person has been on a psychoactive medication for a long time (e.g. oxycodone), you should always stop gradually to minimise withdrawal symptoms. Always communicate these changes clearly to the person's general practitioner.

If you are getting stuck or need advice, pharmacists can provide crucial expertise and assistance. If you are especially fortunate, your unit may have a MOOP (Medications Optimisation in Older People) pharmacist who can provide excellent advice about managing the medications of people living with frailty.

Talk to your ward pharmacist or local MOOP pharmacist for advice about deprescribing!

Parkinson's Disease

Parkinson's medications are considered critical medications and their accidental omission could lead to a significant deterioration in Parkinson's symptoms and the person's condition. Parkinson's medications should always be prescribed by time e.g., 7am rather than 'MANE'.

Nil by Mouth in Parkinson's Disease

If a patient with Parkinson's Disease is made 'Nil by Mouth'. You have three potential options:

- 1) Review whether the Nil by Mouth status is appropriate
- 2) Insert a NG tube to administer medication
- 3) Use the OPTIMAL calculator to calculate a Rotigotine patch dose equivalent - <http://www.parkinsonscalculator.com/>

Omitting all Parkinson's medication is **NEVER** an option in a nil by mouth scenario. An NG tube allows the patient's usual medications to be given which can lead to better symptom control. In some scenarios however a person may not want an NG tube inserted or it would be inappropriate to do so, for example towards the end of life.

Avoid use of Haloperidol, Olanzapine, Metoclopramide and Prochlorperazine (Stemetil) as these can exacerbate Parkinsonian symptoms (American Parkinson Disease Association, 2018).

Persons with Parkinson's disease are susceptible to constipation-induced delirium. Always ensure this is a consideration in new delirium!

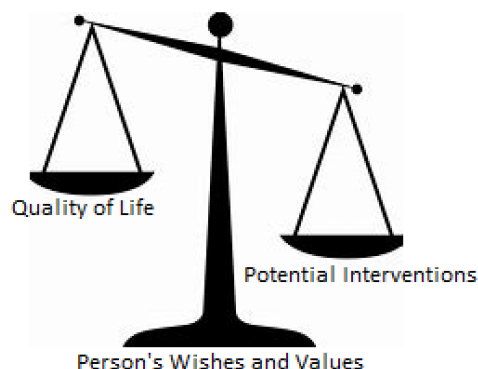
Immobility

Immobility in hospital should be discouraged and people should avoid lying in bed during the day when possible. Hospitalised persons spend 83% of their time in bed (Brown, Redden, Flood and Allman, 2009) but 60% of immobile older persons have no medical reason for bed rest (Graf, 2006). Programmes looking at routine mobilisation of hospital persons have shown a decrease in average length of stay by more than 3 days (Saltvedt et al., 2002), (Kortebein et al., 2008). Ensure nursing staff are on board with the plan to reduce a person's immobility on the ward, nursing staff can assist the person out of bed and even support them to mobilise around the ward which can aid recovery.

10 days of bed rest will reduce muscle mass and power equivalent to 10 years of muscle aging

Appropriate Care Decisions

When an older person living with frailty is admitted to hospital, it is always important to establish what appropriate care should be given and what interventions might be inappropriate. Patient's wishes should be at the heart of making such decisions and it is important to discuss these issues with the person and their family. Assumptions should not be made about people's wishes. Even if the person is unable to discuss these issues themselves, for example they are comatose, their loved ones may be able to express what they would have wanted. Getting these decisions right is critical to ensure people receive appropriate interventions and avoid those which might be inappropriate either due to a person's wishes or potential to cause harm without improved chances of a positive outcome.



Some invasive interventions are known to be much less effective in adults living with severe frailty. To take the often controversial example of cardiopulmonary resuscitation, a recent study in UK hospitals found that in people with a CFS 1-5, 22% survived to discharge after an in-hospital cardiac arrest. For adults with more severe frailty and CFS 6-9, only 1.8% of people survived to discharge after an in-hospital cardiac arrest (Wharton et al., 2019). It is important the potential risks and benefits of interventions, such as cardiopulmonary resuscitation, are communicated in a clear but sensitive manner to people and their families when establishing appropriate ceilings of care.

Often decisions around ceilings of care are over-simplified to decisions about cardiopulmonary-resuscitation status only. However, there are many other potential interventions which should also be considered when liaising with patients and their families to decide appropriate ceilings of care:

Interventions to consider discussing:

- CPR status
- HDU/ITU escalation
- Respiratory Support – Non-Invasive Ventilation/Airvo
- IV and Oral antibiotics
- Invasive investigations e.g. blood tests
- Artificial feeding and fluids e.g. IV or subcutaneous fluids

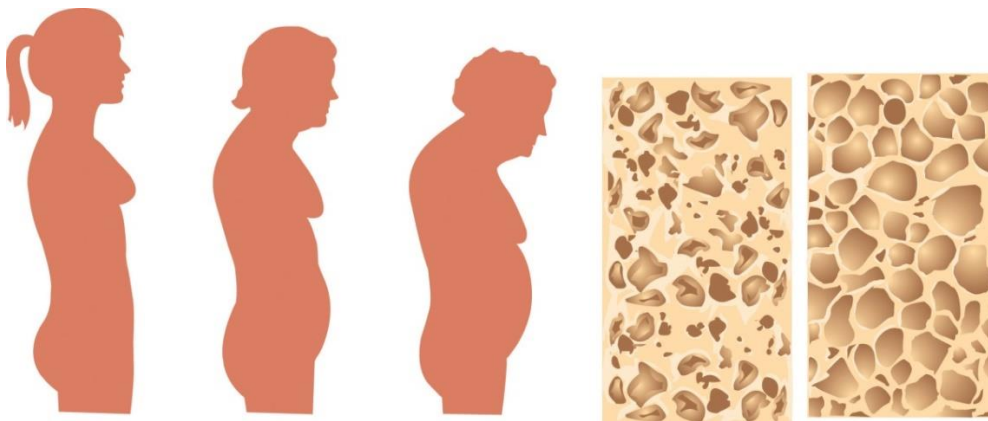
The *UK Resuscitation Council* provides useful resources to help you have positive conversations with patients about developing ceilings of care. These resources include the ReSPECT tool which can be found on their website - <https://www.resus.org.uk/respect>

ALWAYS establish ceilings of care taking into account patient wishes. Ceilings of Care do not just include completing a DNAR Order!

Osteoporosis

What is Osteoporosis?

Osteoporosis is a skeletal disorder characterised by microarchitectural deterioration of bone and reduced bone density. As a result, there is a significantly increased risk of bone fracture. This can be measured on a DEXA scan (Dual Energy X-Ray Absorptiometry) with a T-score <-2.5 being diagnostic of osteoporosis (Sozen, Ozisik and Calik Basaran, 2017). It becomes more common in older age, especially in women with more than 50% of females aged over 80 having osteoporosis (NICE, 2022).



How to manage Osteoporosis

- Perform a **FRAX Assessment** in all postmenopausal women or men >50 with a clinical risk factor for fragility fractures (University of Sheffield, 2022).
- Follow according NOGG (National Osteoporosis Guideline Group, www.NOGG.org.uk) recommendations which will recommend one of 3 options:
 - **Low Risk** – Lifestyle advice (Exercise + adequate Vit D/Calcium intake)
 - **Intermediate Risk** – Measure Bone Mineral Density (BMD) First
 - **High Risk** – Treat without waiting for BMD First
 - 1st Line – Oral Bisphosphonate (If no intolerance/contraindication)
 - 2nd Line – IV Bisphosphonate or Denosumab
 - **Very High Risk** – Commence Treatment and make referral to specialist osteoporosis service

- Treat Reversible Risk Factors (e.g., steroid use, smoking, alcohol excess)
- Assess falls risk and implement strategies to prevent
- Perform Xray of thoracolumbar spine if patient has new back pain and is at risk of osteoporosis to exclude new wedge fractures.

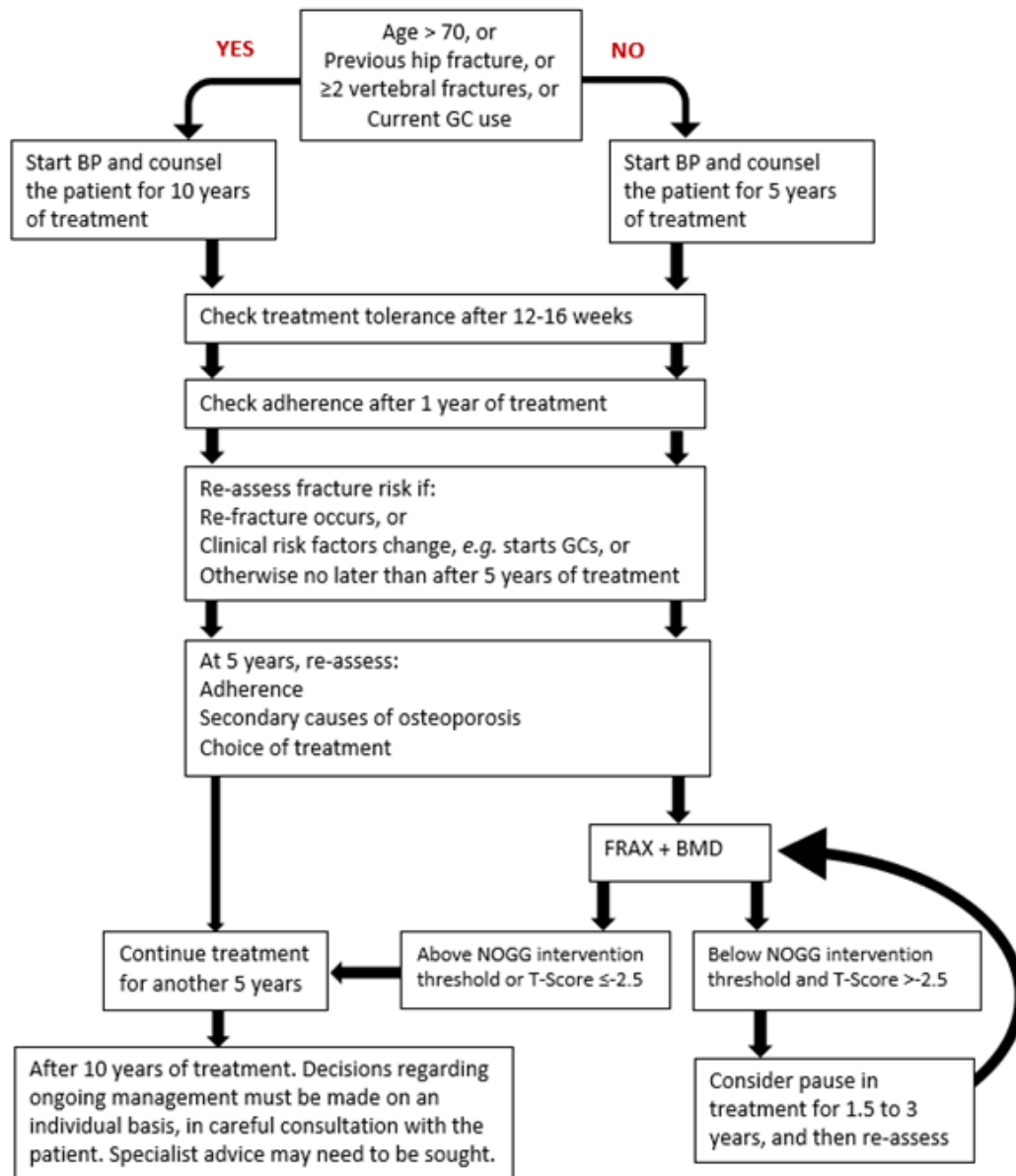


Figure 6 - Oral Bisphosphonates: Clinical Flowchart for long term treatment and monitoring (www.NOGG.org.uk)

50% of Females Aged Over 80 Have Osteoporosis

Alternatives to Hospital

For the acutely unwell older person living with frailty, deciding with them and their families the best place to facilitate care is an important but challenging decision. Hospital care brings some advantages such as 24 hour observation, rapid availability of imaging and easy access to other specialties' expertise. However, for the older person living with frailty there are a number of potential risks to hospital admission including:

- Hospital Acquired Infection
- Delirium
- Separates them from family
- Unnecessary Investigations

Alternatives to hospital can include GP led care, specialty nurse led care (for example community respiratory team) and Hospital at Home. These options may be more appropriate, especially where invasive investigations or intensive care admissions are considered unlikely to be of benefit.

Hospital at Home services consist of multi-disciplinary teams which work in the community to manage acute illness in older persons living with frailty. They can facilitate many elements of care such as IV antibiotics, Intravenous or subcutaneous fluids, oxygen, nebulisers, and comprehensive geriatric assessment. Such services have been shown in a Cochrane Review to provide similar outcomes to hospital care and may even increase the chances of living at home at 6 months as well as being slightly less expensive.

There are a number of scenarios however where Hospital at Home may not be appropriate:

- Chest Pain
- Acute Surgical Problem
- Seizures
- Clinically Unstable
- Imminently Dying

If you have an acutely unwell older person living with frailty in your care you should strongly consider if hospital admission is the best course of action and consider discussing alternatives with the patient, such as Hospital at Home.

**Consider Alternatives to Hospital for
Acutely Unwell Older Persons Living with
Frailty**

Final Considerations of Managing an Older Person Living with Frailty

DOs

- ✓ Offer drinks regularly e.g., on ward round
- ✓ Ensure persons have their dentures, hearing aids and glasses (this can prevent delirium)
- ✓ Beware of atypical presentations- 1 in 3 older persons with MI don't describe chest pain (Engberding and Wenger, 2017)
- ✓ Think before you request a test- scientific curiosity has no place in medicine.

DON'T s

- ✗ Automatically give IV fluids if a person has reduced oral intake. This can be one of the later signs of dementia and if dehydration is the only pathology, then careful thought should be given to the appropriateness of artificial hydration
- ✗ Prescribe sedation to older people just because they are confused
- ✗ Routinely repeat blood tests in well inpatients. 30-50% of inpatient lab testing is unnecessary (Yarbrough et al., 2016).
- ✗ Diagnose "Acopia"- it is not a diagnosis and those labelled with "Acopia" have a higher mortality than those with MI. It is usually a marker of acute deterioration (Kee and Rippingale, 2008).
- ✗ Avoid other unhelpful language such as 'pleasantly confused', it is not pleasant for the person and may inhibit efforts to identify an underlying cause of delirium!

Useful Tools and Resources

Apps



Clinical Frailty Scale App – This app easily determines your persons CFS score via a series of yes/no answers (Acute Frailty Network - Clinical Frailty Scale App, 2022).



Polypharmacy: Manage Medicines App – Gives detailed information on managing polypharmacy in frailty and management of simple conditions such as constipation/chronic pain/anticholinergics

Other Resources

- **OPTIMAL calculator** - Conversion tool for oral to NG/topical Parkinson's medication.
- **STOPP / START** – Online tool used for assessment of polypharmacy
- **STOPPfrail** – Online tool used to assist stopping medications in frail persons with a poor one year survival prognosis.
- **The Silver Book Version II** – An excellent resource from the British Geriatric Society outlining acute care needs in frail patients.
- **Fit For Frailty** – A useful document outlining consensus best practice guidance for the care of older people living in community and outpatient settings.
- **British Geriatric Society** – The British Geriatric Society provide numerous resources on their website, including guidelines and courses, which are useful in managing frailty (www.BGS.org.uk).
- **The MDTea Podcast** – This podcast provides short educational episodes on common issues relevant to Care of the Elderly topics (MDTea Podcast – The Hearing Aid Podcasts, 2022).
- **NI Frailty Network** – The NI Frailty Network is a locally based group which brings together healthcare professionals, relevant charities, and service users themselves who have an interest in frailty.
- **NI Frailty Network Frailty eLearning Modules** – You can register to complete free online frailty modules at the following website - <https://portal.e-lfh.org.uk/Register>. Modules range from Tier 1 – Tier 2b depending on your role working with older people living with frailty.

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