

Comprehensive Geriatric Assessment Toolkit for Primary Care Practitioners



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“The NHS Long Term Plan, published in January 2019, notes that the NHS needs to help older people living with frailty stay healthy and independent for as long as possible. This guide from the BGS is an excellent and comprehensive resource addressing this need. It supports primary care work with older people, and their families, to help them stay well for longer.”

Dr Dawn Moody, Associate National Clinical Director for Older People and Integrated Person-Centred Care for NHS England

“This comprehensive toolkit will be a very helpful resource for primary care teams in Scotland and across the UK. We are delighted to see increasing awareness of the importance of frailty assessment in the community.”

Dr Christine McAlpine, Past Chair of the British Geriatrics Society Scotland Council

Acknowledgments and history

The editorial panel for the toolkit consisted of: Dr Gill Turner (Chair of the editorial panel), Dr Adam Gordon, Dr Maggie Keeble, Dr Adrian Blundell, Dr James Fisher, Dr Sean Ninan, Dr Colin Mitchell, Dr Sanja Thompson, Dr Helen Chamberlain, Dr Helen Lyndon, Soline Jerram and Nia Morgan.

Dr Angelo Grazioli, a GP based in County Limerick, Ireland, had the original vision for this toolkit. He developed the idea for a one-stop shop toolkit freely available online, and created a prototype in 2014. He approached BGS to help complete this first edition, and a BGS editorial panel worked with Angelo throughout 2015.

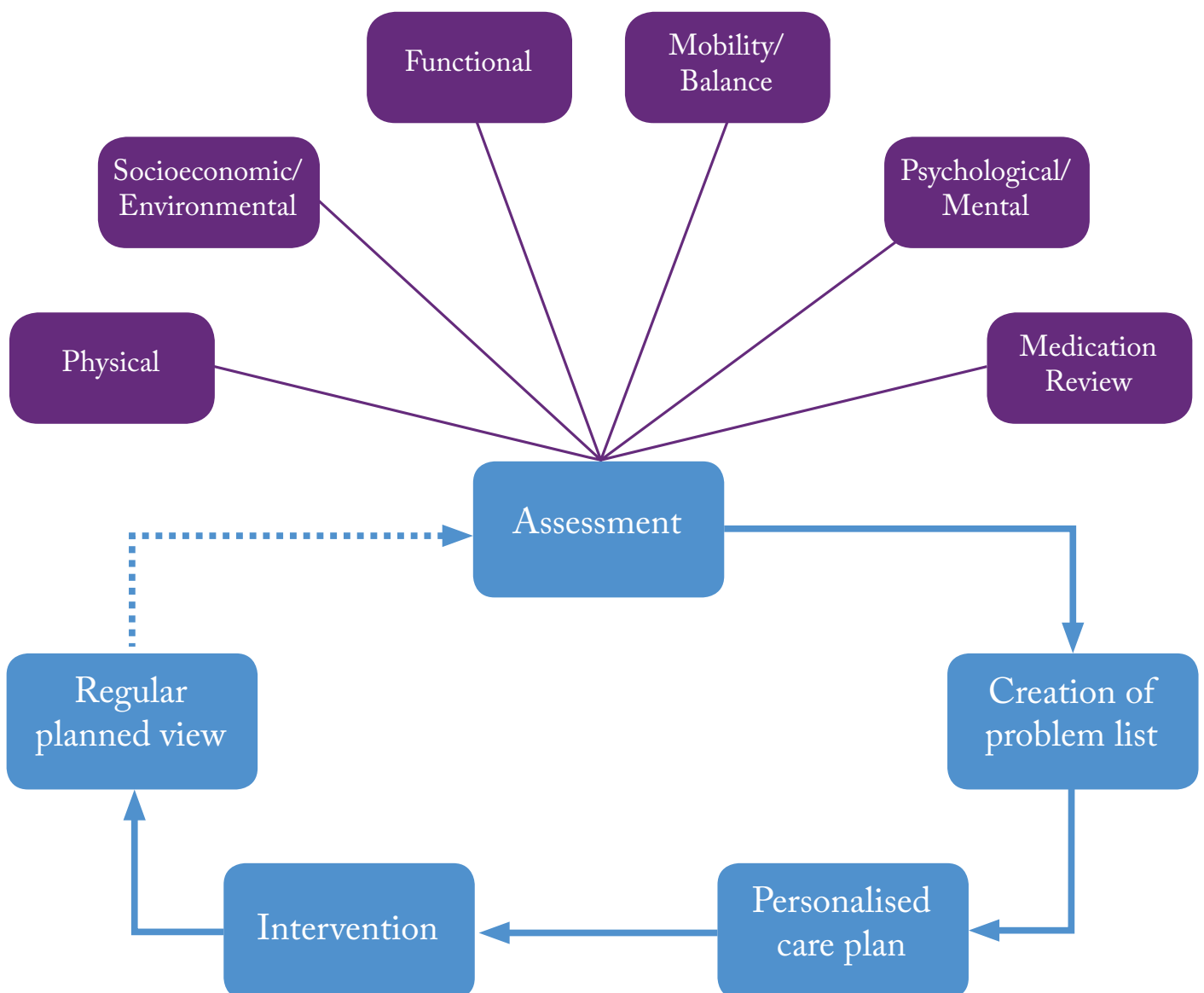
Section 1

CGA in Primary Care

This toolkit is an introduction to Comprehensive Geriatric Assessment (CGA) in primary care settings. It is divided into two parts. Section 1 covers the basics of CGA in primary care, while Section 2 relates CGA to specific clinical presentations that may be encountered in practice

1. Introduction

Developed by the British Geriatrics Society for professionals in primary care and endorsed by the Associate National Clinical Director for Older People and Integrated Person-Centred Care for NHS England, and by the British Geriatrics Society Scotland Council, this toolkit provides an overview of CGA in primary care. A suggested framework for applying the elements of this guide is provided below.





What is CGA?

Comprehensive Geriatric Assessment (CGA) is a process of care comprising a number of steps. Initially, a multidimensional holistic assessment of an older person considers health and wellbeing and leads to the formulation of a plan to address issues which are of concern to the older person (and their family and carers when relevant). Interventions are then arranged in support of the plan. Progress is reviewed and the original plan reassessed at appropriate intervals with the interventions reconsidered accordingly.

Some bodies prefer to call it a comprehensive older age assessment (COAA). It is also referred to as geriatric evaluation management and treatment (GEMT). It is a form of integrated care and is an example of a complex intervention.

Evidence shows that CGA is effective in reducing mortality and improving independence (still living at home) for older people admitted to hospital as an emergency compared to those receiving usual medical care.

In community settings, the evidence shows that complex interventions in people with frailty can reduce hospital admission and can reduce admission in those recently discharged and can reduce the risk of readmission in those recently discharged.

CGA is also a vital part of the management strategy for older people suspected of having frailty in order to identify areas for improvement and support to reduce the impact of frailty.

A recent study showed that comprehensive assessment and individualised care planning can reverse the progression of frailty.

Who does CGA?

The CGA process requires co-ordination to ensure that the experience is positive for both the patient and their families. As older people's needs are frequently complex and always unique, those co-ordinating the process must display advanced communication skills in addition to their clinical knowledge to ensure purposeful and timely assessment. Therefore co-ordination of CGA can be undertaken by any member of the health and social care team but is best carried out by someone the patient and their family trusts and with whom they can have open and sensitive discussions.

In many cases this will be the patient's GP – especially if they have known the patient for some time and have been involved in other aspects of their care. GPs in particular will be well placed to handle a medication review in the context of the overall person-centred goals. Although this could be delegated to a pharmacist, it will not be valuable unless performed as part of CGA.

Nurses are well placed to manage the complexity of assessment in an efficient way drawing together the different strands to coordinate a personalised treatment plan in which the patient and their family share their aspirations and choices. Nurses have a duty to act as patient advocate, empowering people to make shared decisions; these roles are set out within their standards of conduct, performance and ethics.

In cases where there is particular complexity, or where there are concerns about underlying diagnosis or treatment options, a geriatrician working in a community setting could be involved in, or even lead, CGA.

When is CGA done?

CGA should be considered appropriate in a number of circumstances, all of which reflect frailty in an individual (for more detailed information see Fit for Frailty Part 1 2014):

- When an older person presents to their GP with one or more obvious frailty syndromes – i.e. falls, confusion, reduced mobility and increasing incontinence, even if these appear to be due to a reversible cause (such as a new medication or minor infection) or if the ambulance service has already been called – it is unlikely they will have started the process of CGA.
- When a GP or community team learns of an incident which implies frailty in an individual – for example if an ambulance is called after a fall.
- When an older person has been discharged from hospital after presenting with a frailty syndrome (fall, reduced mobility, delirium, etc) even if another diagnosis has been offered as the cause. Sometimes a simplistic, and occasionally erroneous, diagnosis such as urinary tract infection (UTI) appears to have caused a prolonged admission and this implies significant frailty. In this situation, the process of CGA might have been started in hospital but it will need to be refreshed once the older person is back in the community in a more steady state.
- In care homes - most residents of care homes (both those with and without nursing care) will have frailty. The process of CGA will help to identify the future treatment goals and support the necessary advance care planning.

CGA should form part of the process of proactive care and would therefore be also focused on a target population - possibly those with moderate frailty identified through risk stratification. Different federations of GPs in England will be considering their strategies for managing this approach - currently there is no well defined 'best' practice and there is no hard research evidence that systematic screening for frailty offers any economic benefit. Nonetheless the unplanned admissions enhanced services in primary care require consideration of risk stratification.

Several tools for risk stratification and for frailty 'screening' are available and more are being developed. One new tool which may help with risk stratification is the Electronic Frailty Index (EFI). This tool, which is now available in both TPP SystemOne and EMIS web, uses Read codes embedded within the records to compute a score for an individual (it therefore has the obvious disadvantage of relying on good coding). Local decisions can be made as to the cut-off points within this range for mild, moderate and severe frailty.

Likewise local plans will be needed as to the pathways to follow once an individual's scores are available. There are other examples of clinicians using their knowledge of their own practice population to highlight people who need more detailed assessment.

Where is CGA done?

The process of CGA can be performed anywhere, either in the older person's home, in the GP surgery or in a special clinic set up for the purpose in a leisure centre, day centre or hospital outpatient department. The exact situation is less important than the process and activity. It should form part of the care in an acute setting.

It is also ideally suited for the process of proactive care in community settings – however the nature of community working including the geographical and availability challenges for many members of a multi-professional team means that the process will need to be adapted as outlined later in this guide.

2. The elements of the CGA process

This chapter provides an overview of how Comprehensive Geriatric Assessment (CGA) is done in the primary care setting, and what to consider when conducting the assessment.

Comprehensive Geriatric Assessment comprises interdisciplinary and interagency working which places the patient and their supporters at the heart of care.

Such an approach is usually proactive and is logically most relevant when it generates an individual problem list, identifying issues and how they have changed over time in a number of domains:

- a. Physical assessment
- b. Functional, social and environmental assessment
- c. Psychological components
- d. Medication review

It will then accommodate the individual's own personal goals before documenting interventions and overall management strategies, as well as who will deliver these, i.e. a comprehensive care plan.

Depending on the goals/problem(s) identified, the intervention may consist of one or more actions to be delivered by a clinician - doctor and/or other relevant members of the multidisciplinary team (e.g. nurse, physiotherapist, occupational therapist etc), who are included as necessary. The key issue is the collaboration between patient/family/carers and the various members of the team throughout the process. The expectation is that the older person and their family will own this process and regard the resulting care plan as their own. Some of the actions/interventions may rely on activity by the older person themselves.

The holistic nature of CGA covering physical, psychological, functional, social and environmental needs of older people may be confusing if not managed effectively. This is particularly true within the community setting where services are affected by local geography and availability - therefore CGA needs careful co-ordination.

Making CGA work

Key processes and structures which support implementation and maximise the impact of using CGA are:

- Development of multi-professional teams
- Clear identification of a joint core level of competence in assessment between health and social care practitioners
- Clarity of when referral for specialist single professional assessment is appropriate
- Single patient-held documentation
- Information sharing systems
- Regular multidisciplinary team (MDT) review meetings to share knowledge and develop team working
- Access to joint health and social care funding.

Time and financial constraints

Undertaking CGA takes time. To complete the process fully may take up to two hours. Such an undertaking is difficult for individual GPs working in the current model of care where appointment times are short and time in the day very limited. We would envisage the assessment being contributed to by a number of health and social care professionals and there may be a role for the voluntary care sector to be involved. Some sections can be completed by the informal carer. The information would accumulate over time. Developing a model of proactive care for those Older Adults living with Frailty would enable a multidisciplinary approach to comprehensive assessment for those most at risk of unplanned hospital admissions.

Developing a multidisciplinary approach to proactive care will require new models of care – enabling greater integration between primary care and community providers, social care and the voluntary care sector. In England, where commissioners and providers are split, this may be through closer alliances or through the creation of Multispecialty Community Providers – as described in the NHS *Five Year Forward View*.



Enlightened commissioners are already investing in multidisciplinary community teams providing proactive models of care expecting that this will ultimately result in cost savings across the health economy.

The fact that this will improve the quality of care for patients is likely to be the greater incentive for General Practice.

Further information

The Rational Clinical Examination
Simel D and Rennie D.

The entire book is excellent, delivered in short chapters asking a specific clinical question. There is no separate geriatric element however many of the issues are relevant to CGA.

McLeod's Clinical Diagnosis
Japp et al.

Aimed primarily at trainee doctors. There is a short chapter on assessment of the older patient that expands on some of the themes raised here.

Physical assessment

Examination of older patients incorporates all the typical aspects of clinical examination, although there are some general considerations and emphases that should be borne in mind, and specific examinations that may be more relevant in older people. Many of these specific assessments have associated tools but there is no well-validated screening tool for general physical examination. The physical examination will guide which areas require more in-depth or systematised assessment.

General considerations

Participation

Older people, particularly those with frailty, may find the clinical examination challenging or tiring. A thorough assessment may have to be split into more than one session or deferred, so initial prioritisation of the most relevant issues is important.

Posture

Within a single examination session, the patient with limitations of mobility, exertion or posture requires an adaptive approach, grouping examinations by position and opportunity rather than organ system or diagnosis and accepting less than ideal conditions. For example, a kyphosis or severe heart failure may limit the ability to lie flat and so examination of the abdomen and screening neurological examination of the legs could be done with the patient semi-recumbent and consecutively to avoid having to return to this position later.

Assessment of the non-concordant patient

Patients with dementia, delirium, or psychiatric illness may not give consent or participate in examination. Consideration must be given to whether the patient has capacity to agree or refuse examination and, if not, assessment performed bearing in mind the best interests of the patient using provisions of mental capacity legislation.

This is likely to be the case for most aspects of clinical examination which are unlikely to be burdensome, harmful or limiting to the person's liberty – however if the patient has previously refused interventions and assessments it should not

be assumed that a change in their ability to consent or refuse means that examination is now acceptable. Discussion with the patient's advocate(s) or healthcare power of attorney is also important here.

Opportunistic assessment

Examination is a continuous process and information can be gleaned even when not formally examining – the walk into the examination room may give significant clues about gait and balance, while visual cues such as choice and fit of clothing (e.g. elasticated waistbands) can suggest functional difficulties with dressing, or recent weight change. Non-concordant patients examined under their best interests may be challenging to assess but with assistance, reassurance, and careful observation (eg a variety of purposeful movements in lieu of formal neurological testing of each muscle group) a large amount of information may be gleaned.

Hints and Tips

Sensory loss

Subtle clues can be picked up about sensory deficiencies but these can often be compensated for (e.g. lip-reading in deafness) or concealed (giving non-committal responses at the end of poorly-heard sentences). Quick screens for sensory problems include:

- Whispering numbers in the ear and requesting their repetition.
- Cupping a hearing aid in the hand to check for feedback noise.
- Gross visual testing (number of fingers, read a line from a book).

Feet and footwear

Observation of foot condition is extremely important, often yielding actions which can improve balance and function. Choice of footwear, condition of skin and nails (especially toenail cutting and fungal infections), oedema, anatomical abnormalities and ulcers can all be picked up in seconds. Peripheral sensory testing frequently identifies unrecognised abnormalities although their clinical and functional significance can be difficult



to interpret. Vibration testing at the joints, joint position sense, and light touch in the lower limbs may be contributory. Check perfusion in the feet in general - are they warm? If not look for pulses and/or capillary refill time (greater than five seconds might suggest ischaemia).

Gait and balance

Observation around the examination (on and off the chair and examination couch/bed, in and out of the room) is extremely useful. Timed up and go, number of steps to turn 180 degrees, or formal balance scoring (e.g. Berg Balance Scale) can be useful. All these are described in more detail in the *Patients presenting with mobility and balance issues* chapter starting on page 26 of this guide.

Lying and standing blood pressure

This is high yield, giving clues about fluid status, medication effects, and causes of dizziness or falls. The patient must lie flat for at least five minutes, followed by an immediate BP check when standing (supported if necessary). Additional BP checks should be undertaken after one minute and three minutes of standing.

Postural hypotension is said to be present with a drop in systolic BP of more than 20mmHg or to below 90mmHg associated with reported syncope or presyncope (although it may not be demonstrated on every occasion). It is important to note that some individuals can continue to have postural symptoms even if there appears to have been no change in BP. These may need referral to a local geriatrician for more formal testing.

Cognition and mood

Interactivity, alertness, vocabulary, ability to follow complex commands and recall can all be noted over the course of an assessment but should be followed up with formal testing - see chapter on *Psychological assessment* starting on page 13 of this guide. Drowsiness, inattention or hypervigilance can be signs of delirium if acute (Check 4AT).

Functional ability

A full functional assessment is generally the preserve of specialist occupational therapists, but evidence of difficulties with personal care (hygiene, choice of attire) may be picked up leading to a fuller review.



Pain/joints

Many older patients will deny pain or be unable to express it. Observation during movement or change in posture may yield clues that mobility or function may be limited by pain. Using alternative words when assessing movement (e.g. “stiffness”, “ache”) may elucidate further. Examination of joints commonly affected by osteoarthritis such as the fingers and knees with functional observation and gross checking of range of movement/crepitus is helpful. A more thorough assessment by a physiotherapist of joint function may then be indicated.

Weight and nutrition

Check and record weight consistently. Other evidence of weight loss such as poorly fitting clothes, or loose skin should be noted. General condition of hair and nails can yield clues about nutrition, and an observation of oral health (including checking of dentures) is useful.

PR and genitalia

Constipation is often missed, and can cause chronic reduction in appetite or recurrent abdominal pain as well as acute deterioration, nausea and overflow diarrhoea. Faecal incontinence can result from this or from other local rectal problems. A PR examination will reveal information regarding these often-missed issues and also assess for prostate size/shape, haemorrhoids, bleeding or rectal masses. Examination of the external genitalia should be done in a complete assessment, and a brief breast examination (irrespective of sex) in addition.

‘Normal’ age-related changes

It is generally best to avoid assuming that a change is ‘normal’ for age, although certain non-pathological changes are increasingly common in older adults. Skin changes such as uneven coloration and wrinkling/thinning, and neurological findings such as decreased or absent ankle reflexes and loss of vibration sense in the toes or subtle changes in eye movements may not be significant in older patients.

Functional, social and environmental assessment

Functional, social and environmental assessments as part of Comprehensive Geriatric Assessment are important as they add context to the other components of the assessment. To understand what value an environmental assessment holds you must also understand how the person functions within that environment. Likewise social and financial circumstances have a direct impact on physical and mental wellbeing. Here we examine both assessments as part of CGA within primary care, including the questions to ask and steps to take.

Functional assessment

Functional assessment can encompass multiple factors like mobility, activities of daily living and the ability to interact with technologies used for telecare. Another factor impacting on function, is sensory loss, as someone with poor vision or hearing can still be as functional as anyone else but with very different coping strategies.

On initial assessment it may appear as though this person's functional ability is diminished, but in reality it is only different.

Functional assessment and associated trajectories can also inform decisions and treatment options outside of a full CGA. For example, being able to map functional ability in terms of a progressive decline may aid decisions around elective orthopaedic surgery. Likewise, sudden loss in function may indicate acute illness and guide towards active investigation and management; a slow-sustained loss of function may steer the patient to a more supportive care environment.

There are two components of a functional assessment:

- 1 What can and what does the person actually do?
- 2 How recently has it changed?

The first of these components can be relatively easy: one simply needs to ask the questions and tools are available which offer prompts as to the activities needed.

Tools for functional assessment

Most General Practice IT systems have templates for assessment tools; these can be very useful and quick to use. However, because they are embedded within the primary care system, they may not be easily shareable.

Nurses, social workers, physiotherapists and occupational therapists will all be familiar with the Barthel Index as a measure of function. Although it has been around since the 1960's, the Barthel Index has remained relatively unchanged; it is not complex and it is easy to understand the meaning of any outcomes. Particularly helpful is the ability to map a trajectory using Barthel, as baseline scores can be recorded and reassessment is relatively quick once you are familiar with the tool. There is good parity between patient self reports, professional assessment and family opinion. Given its widespread use, simplicity and accessibility it remains probably one of the most useful functional assessment tools today.

One of the problems with Barthel is its so-called ceiling effect. This means that because it measures very basic function in terms of daily life, one can score quite well on the Barthel and yet still be pretty dependent on others for daily life – for example cooking, laundry, cleaning and shopping.

Hence the development of other tools, for example the Nottingham Extended Activities of Daily Living Scale which asks about those components of function which enable social participation.

The Timed Up and Go Test (TUGT) can also be a good indicator of overall function, combining an assessment of physical ability – being able to indeed 'get up and go'. This is also a test of cognition relating specifically to following instructions and carrying them out successfully.

For more details see the *Patients presenting with mobility and balance* chapter starting on page 26 of this guide.

Assessing the timescale of change

Most of these tests do rely on the assessor knowing what was happening previously in order to measure any decline or improvement. While reliant on this factor, the tests are not presented to record and display this. If previous records are not available it is always worth asking “how has this changed in recent weeks?” The patient or their primary care-giver will then be prompted, in an open manner, to elaborate. This will add depth to what you assess and better aid decision making and planning.

Knowing the patient well can be the most effective test of function, and GP and community based staff have the advantage of interacting with patients outside of traditional clinical areas.

Subtly we see the changes in functional ability arise, often over longer time periods. A patient may stop driving one year, stop walking to the surgery the next and within a few years may be house-bound. Identifying these step changes and understanding the multifactorial causes is a vital part of the challenge that is CGA. Evidence shows us that intervening at these times of step changes can help to slow a loss of function and with the right therapies, exercise and goal setting, we can see some reversal and ultimately the patient may regain some physical function.

Social and environmental assessment

Social and financial circumstances have a direct impact on physical and mental wellbeing. They influence patients' ability and inclination to comply with medical advice and the frequency of attendance in primary care and the emergency department. Most health care consultations are done out of the patient's home and without the next of kin or informal carers present. It is vitally important that health care professionals are aware of a patient's social situation and support structures in order to best tailor their advice and support.

“We human beings are social beings... We survive here in dependence on others... there is hardly a moment of our lives when we do not benefit from others' activities... most of our happiness arises in the context of our relationships with others.”

Dalai Lama XIV

Social Assessment has historically been the domain of Social Workers. Healthcare professionals have tended to ask a few perfunctory questions and move on. How often have you seen a social history comprising one word ‘married’? We need to be more mindful of patients' social circumstances and the effects they have on their mental and physical wellbeing, compliance with advice and frequency of contact with the health services. GPs are constrained by time and may not be the best people to collate social and financial information about a patient. This can easily be done by the patient themselves, a well-informed carer, a nurse or health care assistant or indeed a social worker working as part of the multidisciplinary team. There are good examples of the voluntary care sector undertaking Easy Care assessments of patients to feed back to primary care.

There are a huge number of different ‘social assessments’ quoted in the literature but they are difficult to access and some are copyrighted.

They all ask essentially the same questions which have been collated in the BGS ‘Social Questionnaire’ and ‘Environment Questionnaire’ which you can see here: <https://bit.ly/2tcO3Mw>

Feel free to adopt and adapt to your requirements.



Different models of assessment

The medical profession is very wedded to the idea of assessment as asking a series of pre-determined questions – the so-called ‘Questioning Model’ – while Social Care organisations have increasingly adopted an assessment of the individuals’ needs and wishes using the patient as the driver for the exchange – the ‘Exchange Model’. Social work and nursing assessment practice emphasises the importance of independence and quality of life when establishing needs and thus is a person-centred activity.

Questioning Model

In the context of the questioning model, the assessor sets this agenda and is seen as the expert.

Exchange Model

The assessment process is embarked upon as a shares enterprise and the individual is respected as the expert on his/her own situation.

Further information

Barthel Index

www.strokecenter.org/wp-content/uploads/2011/08/barthel.pdf

For further explanation of the Barthel Index see King’s College.

www.kcl.ac.uk/nursing/departments/cicelysaunders/resources/tools/bi.aspx

See also Collin C, Wade DT, Davies S, Horne V (1988), The Barthel ADL Index: a reliability study, *Int Disabil Stud.* 10(2):61-3.

Nottingham Extended ADL Scale.

www.nottingham.ac.uk/medicine/documents/publishedassessments/neadl.pdf

For those concerned about older people’s safety when driving:

How to Know When It’s Time for Your Parent to Stop Driving

www.caring.com/articles/when-to-stop-driving

DVLA Assessing fitness to drive Age UK.

www.ageuk.org.uk/services/information-advice/guides-and-factsheets/

Psychological components

There is a high prevalence of mental health issues in older people so Comprehensive Geriatric Assessment is not complete without addressing these.

As part of a holistic assessment it is vital to consider mood and cognition. Assessing these is described below.

Mood

Depression in older people has a prevalence of 5-10 per cent in those aged over 65, but is frequently under-recognised. It is associated with higher morbidity and poorer outcomes from physical illness. Older people under-report symptoms of depression, and may attribute them to the effects of ageing. Somatic symptoms are more common than in younger people with depression.

Assessing mood, looking for depression, requires close observation of expression and affect during the conversation. Evidence of psychomotor retardation is often present in older people with depression but can be missed if there are other reasons for this such as Parkinson's Disease. Likewise older people presenting with weight loss, poor sleep or increasing pain with stable physical issues could well have a depressive illness and this needs to be considered.

Simple screening questions which might help include:

- During the last month, have you often been bothered by feeling down, depressed or hopeless?
- Do you ever sit and cry for no reason?
- Do you worry about the future and what it might hold?
- During the last month, have you often been bothered by having little interest or pleasure in doing things?
- Do you feel lonely?

However, people are often embarrassed to admit these things in front of others and it is usually

more fruitful to ask these questions during the physical examination when perhaps family and carers are not in the room.

If indicated, it might be helpful to proceed to a more formal depression assessment – potential tools include the Geriatric Depression Score (see Further information, below). This is validated for older people with no, mild or moderate cognitive impairment.

Diagnosing depression in those with significant cognitive impairment is a diagnostic challenge, and specialist referral is usually required. Some symptoms of depression such as tiredness, weight loss and psychomotor retardation also occur in dementia. A history of the symptoms from an informant may be helpful.

Older adults with depression are at higher risk of completed suicide than younger people, so specific enquiry into suicidal thoughts should always be made. Risk factors for suicide in older people include:

- Older age, male gender.
- Social isolation and or bereavement.
- History of attempts and or evidence of planning.
- Chronic painful illness or disability.
- Drug or alcohol use

Cognition

It is a useful approach to use the social aspects of the assessment conversation to judge whether or not there is a possible issue with cognitive dysfunction. It is important to have a low threshold of suspicion as many people with dementia have learned to cope with day to day social questions despite significant cognitive deterioration.

Often a simple screening question addressed to the patient and/or family and/or carers can be a useful introduction to the subject. One such question is: has the person been more forgetful in the last 12 months to the extent it has affected



their daily life? For example, difficulty using the phone, managing shopping lists, using money, managing their medication, driving, etc.

The rate of decline is important to distinguish delirium from dementia. Cognitive decline which is rapid and which has taken place over days to weeks as opposed to months or years is more likely to represent delirium.

The progression (smooth or stepwise) may differentiate the type of dementia suspected.

If there are grounds for suspicion that dementia or mild cognitive impairment may be present, most older people are then happy to undertake a more formal assessment of their cognitive function.

The GP-Cog test takes about 5 minutes to complete and includes an informant interview.

Although the Hodkinson Abbreviated Mental Test Score (AMTS) is a useful and fast screening test, it was developed in hospital-based care and can miss executive dysfunction. It has never been validated for use in primary care.

A more detailed assessment of cognition can be done with either the Mini Mental State Assessment (Folstein); however its use is subject to copyright. It also does not examine executive function in detail.

The Montreal Cognitive Assessment, which is available free of charge after registration, has been developed to detect mild cognitive impairment in many conditions.

Further information

Geriatric Depression Score

<https://patient.info/doctor/geriatric-depression-scale-gds>

GP-cog test

<http://gpcog.com.au>

Montreal Cognitive Assessment.

www.mocatest.org

Helping you to assess cognition: A practical toolkit for clinicians

Assessing cognition in older people - Alzheimer's Society document.

www.alzheimers.org.uk/site/scripts/download_info.php?downloadID=1045

Medication review

Medication review is a core component of CGA. Older patients with multiple comorbidities can have indications for multiple medications, some of which may be based on sound, relevant evidence, but others may do more harm than good, particularly in combination.

The evidence base for guideline-based prescribing may not be directly relevant to frail older people or those with significant comorbidity (as such people are unlikely to have been represented in trial participants). Further, even established medications may no longer be useful as diseases may have run their course, physiology may have changed, or the reason for their prescription may have been to treat another drug's side effect (e.g. amlodipine given for a single raised blood pressure, causes ankle swelling which is treated with furosemide, which causes urinary frequency treated with tamsulosin, which causes dizziness treated with betahistine).

Finally, many medicines are given for long-term risk reduction (e.g. hypertension, renal disease in diabetes, lipid lowering), which may be less relevant to patients with a limited lifespan, and their use may not reflect current priorities.

Judicious review of medications, their indications, side effects, benefits and interactions can cause significant and rapid improvements in a patient's condition. This does not always involve stopping medication. Indeed, increasing doses to effective levels or treating patient priorities such as limiting pain may be highly beneficial, or checking whether the medication can actually be taken or not might be particularly useful (e.g. inhaler technique, ability to put in eye-drops, frequency of PRN use). Below is a schema for a general approach to medication review (it is thorough but depending on prescribing complexity can be completed in 5-10 minutes), plus some validated tools to add rigour to the process.

1 Obtain full medication history

- a Primary care prescription
- b Pharmacy dispensation history
- c Prescribed medications from other providers (e.g. private healthcare, from abroad)
- d Other medications taken (e.g. leftover tablets, medicines prescribed for others)
- e Herbal supplements, vitamins, etc.
- f Illicit drugs.

2 Review medication use: in general and for each medication

- a In general:
 - “Are you good at remembering your pills?”
 - “Can you swallow them OK?”
 - “What are you most concerned about with your tablets?”
- b For each medication:
 - “Do you take this?”
 - “How often?”
 - “What for?”
 - “Do you think it works?”
 - “Does it have any side effects?”

3 Review full drug list for pharmacological interactions or common side effects

The STOPP list (see next page for details) or equivalent is useful here, as well as the BNF or e-prescribing decision support to check for interactions. This will guide further questioning.

4 Obtain sufficient medical history

Obtain sufficient medical history and current disease status to assess appropriateness of prescribing and patient understanding, e.g.:

- If on anti-anginals: “How often do you get angina?”
- If there is a previous history of stroke: “You’re not taking a blood-thinner. Do you know why that is?”
- If on painkillers: “This tablet is a painkiller. What type of pain do you use it for? Does it work?”
- If possible issues identified eg on STOPP: “Do you suffer from constipation?”

5 Review each medication

Review each medication for appropriateness given the medical history. The MAI can be useful here, at least as a framework for evaluating the key issues related to each medication.

6 List and prioritise

List and prioritise medication-related issues and discuss changes with the patient

- a Any high-risk prescribing should be changed urgently
- b Patient priorities are very important to both guide the process and build trust
- c Changes should generally be introduced progressively over time unless there is a significant, urgent problem
- d New medications should also usually be introduced one-by-one (to avoid confusion if prescribing or de-prescribing causes new symptoms)
- e Reduce old medications gradually if necessary to avoid rebound effects (physiological or psychological dependence) and introduce new medications gradually too – start low and go slow.
- f Arrange to assess progress and, if necessary, make further changes in the future.

Further information

NO TEARS tool

www.bmj.com/content/329/7463/434

The NO TEARS tool was developed in primary care and is said to be possible within a 10 minute consultation. It may therefore be a helpful part of CGA.

It comprises a set of questions about an individual as follows

- Need and indication
- Open questions
- Tests and monitoring
- Evidence and guidelines
- Adverse events
- Risk reduction or prevention
- Simplification and switches.

STOPP-START

www.ncbi.nlm.nih.gov/pmc/articles/PMC4339726/

The STOPP-START decision aid is designed to support medication review particularly in older people. It consists of a series of rules/suggestions related to high-yield problems in prescribing for older people, both in terms of reducing medication burden (STOPP) and adding in potentially beneficial therapy (START). Short forms are being developed but are not yet published.

MAI

www.ncbi.nlm.nih.gov/pmc/articles/PMC3831621/

The Medication Appropriateness Index (MAI) is a framework for assessment of medications for older people. The MAI can be applied progressively to each medication to decide, individually and in combination with other medicines, whether the cost:benefit decision to prescribe the medication in question is appropriate. This tool is straightforward but painstaking as time needed increases progressively for each additional medication.

3. Creating a problem list

The following chapter of this guide outlines how drawing up a comprehensive stratified problem list can assist in creating the care plan and explains the steps to follow including any clinical tests to consider.

The Problem List should be developed in collaboration with a patient and/or caregiver and be individualised and patient-centric, reflecting patients' concerns and those of their families. The creation of the list in full will help in the generation of the care plan.

The Problem List process is particularly helpful for structuring an approach to;

- Older patients with complex, multiple comorbid conditions
- Those older people with conditions in need of collaboration between primary and specialist care
- Those older people in need of collaboration between different services
- Those with multiple needs (e.g. socioeconomic, health, safeguarding), often identifying interactive problems.

It can be initiated in any setting, at any stage of a frailty presentation, but it is important to recognise that problems and goals noted at the point of an acute illness or decompensation may differ from the list produced once the patient is stable and at home. Thus the Problem List and Goals may change/evolve over time.

In frailty, there can be more than one problem as patients often have varied and multiple problems (on average six), but the Problem List should help to identify all acute, subacute or chronic problems which may interact. The Problem List should also help with prioritisation so that acute and more serious problems (from the patient's point of view) are dealt with first.

However, setting goals and prioritising them may be difficult for various reasons, for example in a patient of advanced age with poor functional status, with dementia or with multiple interacting acute and chronic conditions, thereby turning the problems into 'works in progress', and underlining the need for continuing assessment.

When creating the Problem List, difficulties can arise in reaching the appropriate decision about which investigations/actions are necessary, or whether enough is being done for the patient. An important aspect of such decisions is to focus on the assessment of patients' competence or capacity. This will determine whether and how the other aspects of assessment/management/treatments are undertaken.

A summary sheet can be used to record an holistic assessment which will facilitate the generation of a Problem List.

Using tests to manage problems

Unless tests are clearly inappropriate, or the patient has refused them, the majority of older patients presenting with new health or functional problems should be investigated as guided by the signs/symptoms of ill health. Investigations should initially be confined to those that are simple, inexpensive, easily performed and not distressing, and those for which the results are almost instantly available, resulting in high yield.

Such tests include:

- Urea (be aware that middle range can represent severe dehydration in older patients),
- Creatinine (be aware that low muscle bulk can mask poor renal function and that there are limitations of the Cockcroft-Gault equation for calculating eGFR in older patients when diagnosing and staging kidney disease, this overdiagnosing Chronic Kidney Disease (CKD)).
- Electrolytes (be aware sodium <125mM/L can cause confusion and tiredness; sodium <115mM/L can cause seizure, coma, death). Be aware that rate of change is important also. Some people run a chronically low sodium of around 125 which is unlikely to be causing symptoms.



- Glucose (be aware of higher risk of hypoglycaemia in older patients, due to the age-associated decrease in the autonomic response to hypoglycaemia).
- Liver Function Tests (be aware that Paget's disease should only be considered if elevated alkaline phosphatase in otherwise normal liver function tests. It could also be elevated for weeks after a sustained fracture).
- Calcium, C Reactive Protein (CRP), Thyroid Function Tests (be aware of sick euthyroid syndrome during acute illness. Also, if a hypothyroid older patient is successfully treated, but clinically not feeling better, consider further tests for concomitant autoimmune conditions like pernicious anaemia, Addison's disease)
- Chest Radiography (CXR)
- Electrocardiograph
- Urinalysis (asymptomatic bacteria does not necessarily indicate urinary infection but new onset incontinence should be investigated with urine culture)
- Full Blood Count. Haemoglobin (Hb) levels gradually decline from the age of 60. Around 20 per cent of older patients are anaemic due to disease, and they may also suffer from marrow suppression (myelodysplasia). Also, fluid overload can cause fall of Hb level as can fluids in a previously dry patient. Further discussion and decision about investigating an older patient with anaemia should depend on clinical problems, symptoms, past medical history, severity of anaemia, particularly the rate of Hb fall (a recent significant change should usually mean urgent investigation), and MCV results (micro-, macro- or anaemia of chronic disease-normocytic, normochromic), where the investigations should not depend only on the absolute level of Hb. Be aware that some older patients suffering with malabsorption (e.g. due to coeliac disease with low iron, folate, B12) could have a dimorphic blood picture thus appearing to have a normal mean cell volume (MCV) – this means checking haematinic levels is always useful in any anaemia. In patients with a normal MCV whose haematinic levels are within the normal range, anaemia of chronic disease is the most likely cause. The most common cause of this is chronic kidney disease, but do not forget wounds of any type, including leg ulcers, chronic inflammatory disease and malignancy. It may be appropriate to consider further tests such as blood film, TFT, urine analysis, LFT, bone profile, immunoglobulins and – in men – PSA.
- Erythrocyte Sedimentation Rate (ESR) can be useful for monitoring/screening some conditions in older people. It is usually very high (>90mm/hr) in the following conditions: giant cell arteritis, metastatic cancer, chronic infection and paraproteinaemias. However, in patients older than 70 years, values of up to 35 mm/hr for female and 30 mm/hr for male patients can be normal.



Decisions about any further investigations should usually not be rushed at the first presentation/assessment and without the available results of the initial investigations. Often a short period of observation may be necessary, particularly for ascertaining the patient's ability to consent and to tolerate further investigations, and her or his suitability for the treatment.

Moving on to further tests

Ordering further investigations without careful weighing pro- and contra- arguments for each decision in a frail, older patient, with multiple comorbidities, may result in distressing, time-consuming, expensive, unnecessary and even harmful investigations/assessments. For example non-intentional weight loss of 5% in a period of one month or 10% over 6 months in an older patient is usually worrying, but the general rule for ordering further investigations should be the consideration of investigations that will alter management of the patient.

This does not necessarily mean offering a curative procedure such as a surgical intervention – it could simply mean establishing suitability for palliative radiation. Another focus of the investigation/assessment could be the determination of prognosis and its consequence for the patient: good or bad (e.g. reassuring the patient and family or focusing them on advanced planning). It is important to determine what the focus of the investigations is – prior to referral for the tests.

It should be borne in mind that several tests are usually not well-tolerated or are difficult to perform in older patients: 24-hour ECG tape (in a confused patient and often in someone who is not confused but poorly mobile), Exercise Tolerance Test (e.g. poor mobility), Bowel preparation and Colonoscopy (e.g. risk of dehydration and perforation).

4. Care and support planning

The next chapter of this guide provides a reference guide to care and support planning for primary care and community clinicians, with emphasis on the care of older people living with frailty. It explains what personalised care and support planning is, the recommended components, tips for developing a Care Plan, with a list of resources to help clinicians and patients engage in personalised care planning.

What is care and support planning?

The Royal College of General Practitioners defines personalised care and support planning as:

“A powerful way of creating an environment which helps clinicians to support self-management by patients of their own long term condition.”

However a more holistic definition comes from the NHS England Service Component Handbook on personalised care and support planning.

‘Personalised’ care and support planning is an essential gateway to better supporting people living with long term physical and mental health conditions, and carers, helping them to “develop the knowledge, skills and confidence to manage their own health, care and wellbeing.” It helps individuals and their health and care professionals have more productive conversations, focused on what matters most to that individual.

The term ‘personalised’ reflects that the “conversation relies on equal input from the individual and their carer, where appropriate, alongside health and care practitioner(s)” and looks at the individual’s health and care needs within the wider context of their lives. ‘Care and support’ signals that “people need more than medicine or clinical treatments and that social, psychological needs and support to do things for themselves are equally important,” alongside opportunities for community inclusion and support.

The essence of personalised care and support planning is:

- A conversation between an individual (including their family/carer when appropriate) to discuss life priorities, consider options and agree goals.
- Working with the individual to identify the best clinical treatments and/ or social and psychological supports for them, taking account of their life priorities and the agreed goals.
- Agreeing the actions individuals themselves will take to help them achieve their jointly agreed goals and the support they may need to do that.
- Recording the conversation in a way relevant to the individual.
- A planned and continuous process, not a one-off event.

There is a drive for care plans to be more widely implemented; the NHS Mandate included a commitment that by April 2015:

“Everyone with long-term conditions, including people with mental health problems, will be offered a personalised care plan that reflects their preferences and agreed decisions.”

The NICE Guidance for Older People with Multi Morbidity published in September 2016 recommends a care plan reviewed annually.

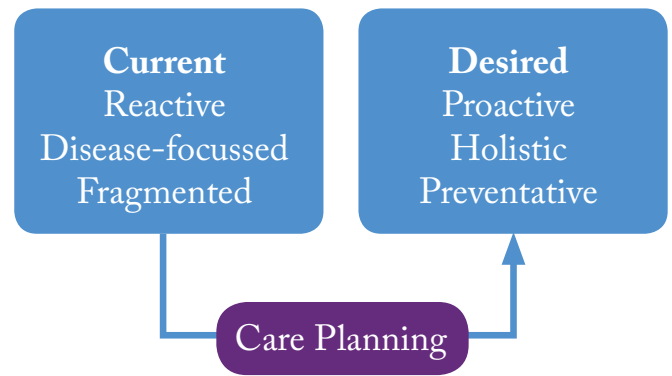
Why is it vital?

One of the most important challenges facing the 21st century NHS is the need to improve the treatment and management of long-term conditions, multi-morbidity and support and care for older people living with frailty. Part of the problem relates to how our models of care tend to be structured. Traditional models of care, which focus on the management of single long-term conditions, do not fit the paradigm of care required for those living with multi-morbidity and frailty. It is recognised that change is needed.

The term 'house of care' has been adopted as a central metaphor in NHS England's plans for improving care for people with long-term conditions - care planning has been recognised as being at the very heart of this process of driving change (Figure 1).

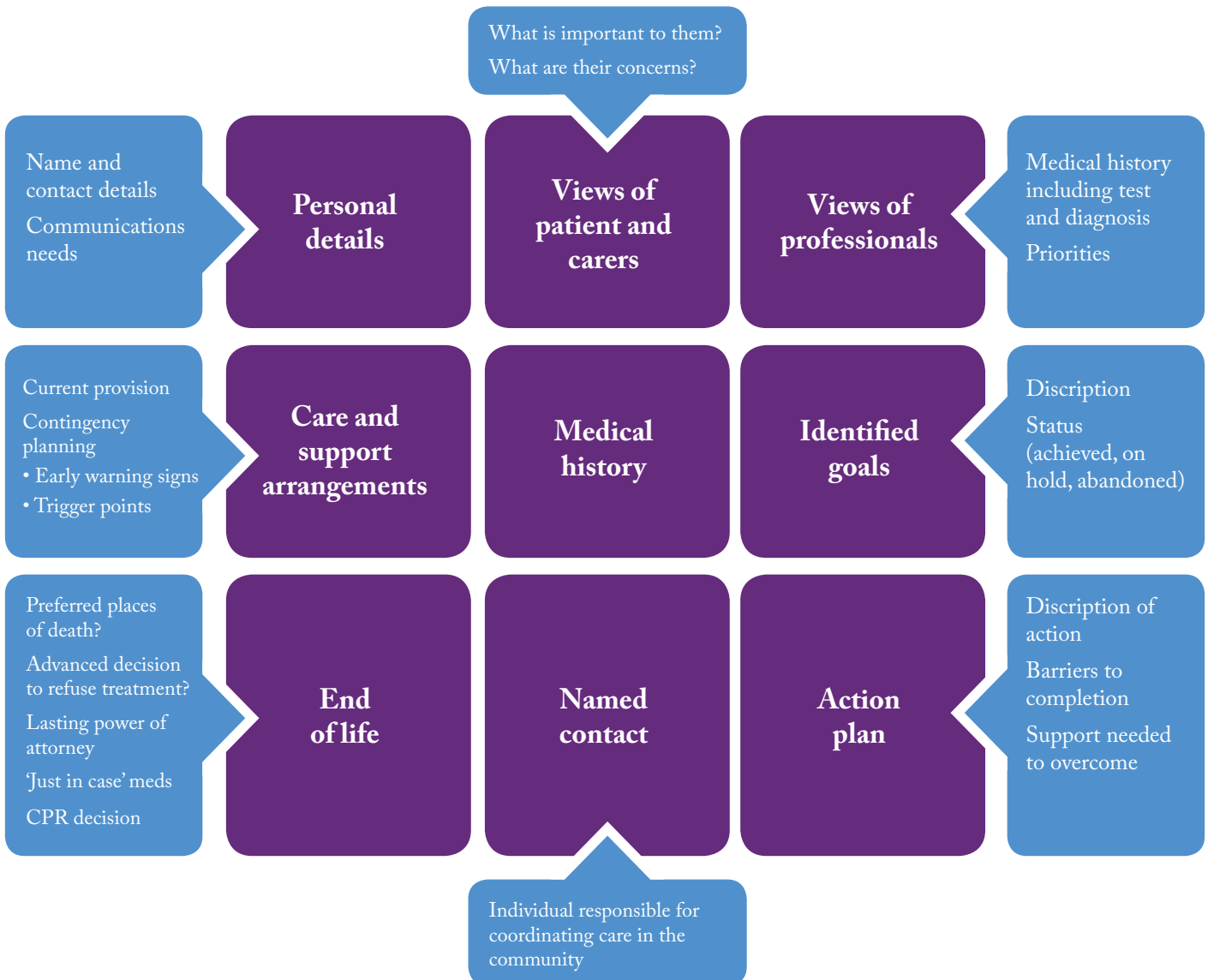
In an age of austerity, it is worth noting that evidence suggests personalised care and support planning can produce the most appropriate use of limited healthcare resources.

Figure 1



What should a care plan include?

The diagram below summarises nine key areas that ought to be included within a care plan for a frail older person.

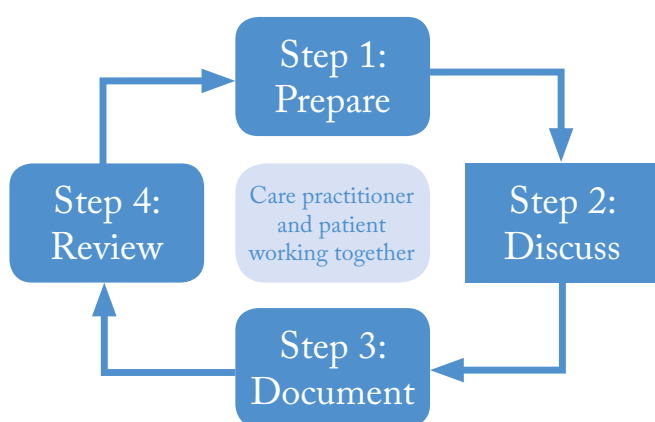


Key steps to developing an effective care plan

Figure 2 displays four steps to developing a care plan that are identified in the National Voices Guide to Care and support planning.

It is critical to highlight that, despite the simplicity of the diagram, this process should be both collaborative and continuous. Furthermore, it is not intended to be prescriptive, but to stimulate thinking.

Figure 2



Goal setting and action planning

It is important to emphasise that care planning is much more than solely preparing for when a patient's condition deteriorates. A more pro-active, positivist outlook on care planning is to consider care plans as a way of empowering patients to maintain or improve their health - central to this process is goal setting.

Traditionally, goal setting has tended to remain within the medical paradigm; that is the goals themselves have tended to focus on treatments, medications or test results.

Effective care plans, that improve health and well-being, require goals that are based on the patient's personal targets and should link to functional outcomes that they want to achieve.

Two contrasting examples of goal setting are shown in Figure 3 below.

Figure 3: An example of goal setting and action planning for a patient with recurrent falls (adapted from Personalised care and support planning handbook, Coalition for Collaborative Care).

Figure 3

Instead of	The plan should read
Need: Fall prevention	Need: I need to build up my muscle strength to assist with balance
Goal: Prevent A&E attendances	Goal: To be able to use the stairs without needing any assistance
Action: Attend physiotherapy appointments once per month	Actions: Doctor to refer me to a physiotherapist; I will discuss strengthening exercises with my physio; I will join a weekly walking group

Goal setting in this manner has a number of advantages, particularly in the context of older patients living with frailty. Firstly, it encourages patients to articulate what matters to them and thus drives more patient-centred care. Secondly, this approach can help to simplify decision-making in patients with multiple morbidities by focussing on outcomes that span conditions and aligning treatments toward common goals.

It is also important to recognise that in the context of frailty, by definition, things can change or take a turn for the worst. The care and support plan might usefully include pointers for an individual and their carers as to what action to take if this happens so as to avoid further rapid deterioration, reduced function and ultimately loss of independence.

This Escalation plan could range from a very medical issue, such as what action to take if weight is gained rapidly (suggesting fluid retention and deteriorating heart failure) to a problem with care ('What should I do if the carers haven't turned up?') or to a more personal issue ('What should I do if I don't feel well enough to go to the exercise class?'). Giving individuals support in considering these possibilities can lead to an increased sense of control and confidence in the support structures.

A care and support plan for an individual living with frailty should also include the actions which the individual might wish to be taken in the event of a crisis such as a fall, an intercurrent illness or any other situation where an ambulance or out-of-hours doctor might be called.

This Emergency Care plan or Urgent Care plan will document what the professional and the individual have discussed is probably right for that person in the event of a crisis. Of course it is not always possible to predict exactly what will be needed, but thinking about whether hospital admission is appropriate after they have fallen, or whether the patient would rather be at home if they had a life-threatening illness, in advance of the situation will provide valuable guidance to the emergency health professionals at the time of the crisis. It also helps to document the individual's usual observations if they might be relevant to the issue.

For example, someone with idiopathic Parkinson's disease who has persistently low blood pressure and who has falls is more likely to be taken into hospital unnecessarily (and to their detriment) after a fall, if the ambulance crew are not aware that a systolic BP of 90mmHg is normal for that individual.

Tips for goal setting

Drawing on the mnemonic 'SMART' may result in more effective goal setting:

- **Specific:** both the goal and the action plan (which must be explicit - who will do what and when?).
- **Measurable:** consider how we can help people to track whether they are achieving their goals (Diary? Checklist?)
- **Achievable:** Patients and clinicians must ensure that goals remain within the realms of achievability given the patient's clinical situation. To assess this, it is worth asking patients to grade their confidence in achieving their aim using a scale of 1-10.
- **Relevant:** to the patient and their situation.
- **Timely-** as in, is it possible to make a difference in a relevant time frame and when should things be reviewed?

Involve carers and family (when relevant) with these discussions, since they can play a significant role in this process:

- They can help with the construction of achievable goals.
- They may be an active participant within the required actions.
- They may be required to help provide ongoing motivational support to the patient.



5. Involving Social Services

A comprehensive assessment needs to consider the impact of social factors on the health and wellbeing of individuals and vice versa. The connections between their social circumstances, improved health outcomes and a sense of wellbeing may not be visible to the individual, nor to the professionals unless there is a full picture and joint development of the care and support needs, considering all the interdependencies and the wishes of the individual.

Closer integrated working with Health and Social Care would enable information-sharing - saving time and reducing the consequences of poor communication. Putting the patients and their informal carers at the centre of this assessment and allowing sharing of the information with any health and social care professional with whom

they come into contact should be supported. This would create a truly patient-centred resource and stop the repetition of information-giving that is a frequent source of discontent amongst patients and their carers.

Readers need to be mindful of the differences in the legislative frameworks supporting health and social care delivery across the 4 countries of the UK when reading this page.

These have similar aims but key differences. Their application and levels of integration can influence the ease with which the delivery of a single assessment can be achieved.

More information can be found about these frameworks on the next page.

Regardless of the legislative framework there is a general consensus of what good practice in supporting people with frailty should look like.

With new duties being placed on health and social care, the development of integrated working with shared information systems and processes is essential. This may also require that professionals not only share information but trust colleagues' information and undertake some of each other's parts of the assessment where this makes sense. The health and social care legislation differs in the four nations of the UK:

Wales

The Social Services and Well-being (Wales) Act 2014. Due to be enacted in 2016 after going through a range of consultations this contains some distinct differences in duties around assessment and information.

www.legislation.gov.uk/anaw/2014/4/pdfs/anaw_20140004_en.pdf

Northern Ireland

Northern Ireland are making changes to their health and social care system under a programme called Transforming your care.

www.transformingyourcare.hscni.net/

England

The Care Act 2014 (England) places a statutory duty on local authorities to:

- Carry out an assessment of anyone who appears to require care and support, regardless of their likely eligibility for state-funded care.
- Focus the assessment on the person's needs and how they impact on their wellbeing, and the outcomes they want to achieve.
- Involve the person in the assessment and, where appropriate, their carer or someone else they nominate.
- Provide access to an independent advocate to support the person's involvement in the assessment if required

- Consider other things besides care services that can contribute to the desired outcomes (e.g. preventive services, community support).
- Use the new national minimum threshold to judge eligibility for publicly funded care and support.

Scotland

Public Bodies (Joint Working) (Scotland) Act 2014. This includes:

- Nationally agreed outcomes, which will apply across health and social care, and for which NHS Boards and Local Authorities will be held jointly accountable
- A requirement on NHS Boards and Local Authorities to integrate health and social care budgets
- A requirement on Partnerships to strengthen the role of clinicians and care professionals, along with the third and independent sectors, in the planning and delivery of services
- A requirement that Partnerships will be jointly accountable to Ministers, Local Authorities, NHS Board Chairs and the public for delivering the nationally agreed outcomes.

www.gov.scot/Topics/Health/Policy/Adult-Health-SocialCare-Integration/About-the-Bill

Further reading

See NICE guidance regarding social care needs for older people with one or more long term conditions.

www.nice.org.uk/guidance/ng22

Section 2

Specific Presentations

This section applies Comprehensive Geriatric Assessment to specific clinical presentations that may be encountered in primary care and should be used in conjunction with Section 1 to undertake a complete assessment

1. Patients presenting with mobility and balance issues

Maximising older people's walking and balancing abilities improves their quality of life and reduces their dependence on health and social care. Impaired gait, balance and strength are key risk factors for falls and interventions targeted at improving these have been shown to prevent falls.

This guide looks at the three stages of assessment that the primary care physician should follow: taking the patient's history, assessing their gait and balance, including simple tests which can be carried out in many locations, and referral, where necessary, to physiotherapy and other services.

Diagnosis in managing gait and balance problems

It is important to attempt to make a diagnosis in gait and balance disturbance before referral to physiotherapy in order to avoid worsening the situation. For example:

- Failure to control pain in an arthritic condition resulting in inability to take part in strength training to improve walking and the need for the physiotherapist to refer back to the GP before definitive treatment can begin.
- Failure to diagnose an early case of Motor Neurone Disease or Parkinson's resulting in failure to make specialist referrals or spot other problems e.g. swallowing/speech.

- Failure to guide the patient accurately as to the likely trajectory of their problem thus potentially setting too low or too high an expectation.

History taking

As with all parts of CGA, it is important to actively listen to the patient for key cues that will guide your diagnosis and management.

Building a thorough, corroborated picture of what a patient can currently do or not do is key.

To diagnose and manage problems identified, it is also critical to understand their prior levels of mobility and to be specific about the timeperiod of deterioration. To make interventions relevant you also need to understand what the patient needs to be able to do to live their normal daily life with the support they have.

It is also helpful to ask about prior intervention that patients have had for gait and balance problems. If a patient has failed to improve with appropriate intervention before, then re-referring is unlikely to benefit the patient. Patients and carers often need reassurance and support at this stage because they sometimes feel that further therapy will resolve their problems when in actual fact they need support to adjust to a reduced level of mobility.



Establishing current and prior function

To establish current and prior function in walking, balance and associated functional tasks, ask:

- 1 Can the patient walk outdoors, how far; do they need an aid or someone to go with them?
- 2 Can the patient walk indoors the distances they need to be able to manage; do they need an aid or anyone to help them?
- 3 Has the patient noticed any changes in their walking pattern? Important changes to seek are:
 - Shorter steps/shuffling.
 - Feet feeling stuck to the floor, difficulty getting started or going through doorways, feeling like they can't stop (festination), feet close together.
 - Tendency to fall backwards (occurs for a variety of biomechanical, musculoskeletal or neurological problems but can progress and become disabling. Can affect ability to stand from a chair in time. Requires physiotherapy to address the underlying causes as early as possible).
- Not being able to put weight through one leg properly, resulting in a shorter step on one side.
- Walking with feet too wide apart or too close together.
- Swinging one leg out to the side (circumduction).
- Uncoordinated walking, inability to maintain walking in a straight line, veering from course.
- Feeling like they can't feel their feet or 'are walking on cotton wool.'
- 4 Has the patient started to restrict activity because they don't have the confidence in maintaining balance doing normal daily tasks they usually can do?
- 5 Have they started to fall?
- 6 Do they feel 'off balance' / unsteady / dizzy during normal mobility or functional tasks?
- 7 Ask about functional ability specifically:
 - Difficulty getting up from chair / bed / toilet.
 - Difficulty getting into bed /out of bed; has the patient taken to sleeping in their chair rather than going to bed?

- Difficulty with stairs / steps (don't forget to ask about steps getting into the house as well as steps within their property).

Understanding a patient's confidence levels is key. It is not just what they can do, it is how confident they feel doing it. Take loss of confidence in doing tasks seriously as it is strongly correlated with objective impairment of abilities and higher falls risk.

Understanding time periods

Understanding time periods guides diagnosis and goal setting. Where there is sudden loss of mobility, question carefully. Is this:

Genuine sudden loss (likely to indicate an significant event (e.g. fall or injury) or significant illness (e.g.infection)?

OR

A gradual decline over a period of time during which the patient's functional reserve has been reducing and their frailty increasing, culminating in a patient reaching a critical point where they no longer have the ability to do certain tasks? Sometimes a relatively minor insult at this stage can render a patient unable to walk / function (the 'stuck in chair' / 'off legs' scenario). It is important to recognise this, as treatment focussing on the minor insult may temporarily help mobility, but failure to address underlying problems and to increase functional reserve will not result in sustainable improvement.

Goal-setting and prior intervention

If the patient has an established diagnosis for their walking and balance problem, for which they have received adequate quantity and quality of physiotherapy which has not resulted in improvement, then the physician should take an approach with the patient around compensating and helping them manage their deficit.

This may still involve re-referral to a physiotherapist if the patient's condition has changed or further help is needed in developing management strategies.

OR

If they have a new, modifiable problem, or one for which they have not had intervention for whatever reason, then the focus should be on trying to remediate the problem through appropriate strength and balance training, providing the patient is willing and able to participate.

What the patient needs to be able to do

What the patient needs to be able to do will help determine goals for intervention. There is a need to explore the distinction between what the patient would like to be able to do – which might be based on historical patterns of movement or ability and what the patient needs to be able to do to achieve one or other overall goals. For example, a patient who used to play tennis three times weekly, might wish to be able to continue to do this – but because of his severe osteoarthritis and age-related gait problem, it is more feasible to find a way of him achieving the goal of being able to get to the village cricket club twice a week.

Gait and balance assessment

Gait and balance assessment simply means watching the patient walk. If possible, it is better to observe the patient whilst they are unaware of being watched but this is not always possible or appropriate. Watching them walk down your surgery corridor or around their own home is all that is needed.

Although not an exhaustive list, key things to watch for (and then examine and address) might be:-

- Foot drop (peripheral neuropathy, nerve palsy, damage from previous CVAs).
- High stepping gait / heavy foot placement (possible foot drop).
- Trendelenburg(waddling) gait (hip weakness due to specific musculoskeletal problems around the hip).
- Parkinsonian signs (narrow base, freezing, festination, loss of arm swing).
- Ataxic gait (cerebellar issues, MSA).
- Flexed hips and knees (PD, lower extremity musculoskeletal deficits resulting in muscle weakness or tightness).

- Wide-based gait.
- Leaning too far forwards or backwards.
- Short steps / shuffling gait (PD, cerebrovascular disease).
- Antalgic gait (less time spent in stance phase on one leg – usually due to weakness or pain).
- Circumduction of one leg in walking.

Simple tests for walking and balance

The following tests are recommended because they are evidence-based, have satisfactory reliability and validity and take less than five minutes. They are also easily completed in a surgery setting or in the patient's home and require no special equipment.

Timed up and go test

- This test measures functional mobility in the older population.
- The patient should sit in a chair of knee height. They should be asked to stand up, walk three metres, turn round, return to the chair and sit down.
- You should time the patient, starting timing when the patient starts to try and stand up and stopping when the patient is sitting down again.
- The patient may not use a walking aid so if they need one then this is not an appropriate test and they already have a mobility problem rendering the test unnecessary.
- Timed up and go duration increases with worsening mobility.

Normal scores are between 8 and 11 seconds for people between 65 and 99. If a patient takes more than 12 seconds then their mobility may be considered impaired. See also the demonstration video Timed Up and Go.

180 degree turn test

- This measures dynamic balance. It should not be used in patients who require a walking aid to turn, are not able to fully weight-bear or who cannot follow instructions.

- A patient should sit in a chair from which they can easily stand up. Backs of chairs or other stable hand-holds should surround the patient in front and to the side forming a square or circle.
- The patient should stand up and you should stand behind them.
- You ask the patient to turn around and face you (turn 180 degrees).
- The patient should not hold on unless they need to, in which case they have failed the test.
- You should count the number of steps they take.

Patients who take five or more steps have an increased relative risk of falling in the following year and might be considered to have balance impairment.

Gait speed

- Ask a patient to walk a distance of four metres.
- If they take longer than five seconds then their gait speed can be considered slow (i.e. less than 0.8 m/s).
- Gait speed is correlated with increased risk of falling.

Chair stand

- Ask the patient to sit in a chair which is at knee height.
- Ask them to stand from the chair.
- Patients who require use of their arms to stand are likely to have lower limb strength impairment.
- Lower limb strength impairment is correlated with risk of falls and with poor balance.



Onward referral

Patients who pass all of these tests but who report worsening quality of mobility or reduced confidence should be referred on to a therapist for more detailed assessment. In the event of detecting a gait and balance problem the following onward referrals should be considered:

- 1 Referral to outpatient or ambulatory services for secondary medical opinion if this is needed to reach or confirm the diagnosis and to support with the initial management plan.
- 2 Referral to physiotherapy services for:
 - More detailed gait and balance assessment.
 - Strength and balance training.
 - Re-education of walking techniques which may or may not include provision of walking aids.
 - Advice on how to build confidence with walking and balance.
 - Falls prevention advice relating to strength, walking and balance.
- 3 Referral to Occupational Therapy services for a holistic assessment of the patient's functional abilities and how to enable them to be as independent and safe as possible. This could include the provision of aids around the home.
- 4 Referral to services which may provide additional support during times of worse functional ability. Many local councils and community NHS trusts will have access to a range of rapid response, enhanced support at home and telecare services that can support with maintaining safety and independence.
- 5 Referral to community-based exercise options for patients who are fit enough to pursue this. Many local councils and voluntary sector groups offer exercise classes for older people run by exercise instructors with recognised qualifications in managing older people.
- 6 Referral to services which support social inclusion. Having a problem with walking or balance can be a time where people become stranded in their own home or have less than their usual levels of social contact. Consideration for befriending services, social activity groups, University of the Third Age (U3A) can help to reduce the psychological impact of reduced mobility and help maintain quality of life.

2. Bone health

Older people with frailty, those with reduced mobility and those with multiple co-morbidities are all susceptible to problems with bone health. This will include people with Parkinson's disease and other movement disorders, people with dementia and those with obesity or other manifestations of the metabolic syndrome. Anyone presenting with a fragility fracture (defined as fractures caused by falls or trauma from standing height or less) must be screened for bone health.

The commonest bone problems found in older people are osteoporosis and vitamin D deficiency, which are typically clinically silent. However other diseases, such as Paget's disease of the bone, osteomalacia (clinically evident vitamin D deficiency), and hyperparathyroidism may be relevant, and older people may present with bony pain or hypercalcaemia due to bony metastases or primary malignancy of the bone.

In general a comprehensive assessment of an older person with regard to bone health should include:

History: Bony pain? Loss of height/change of posture? Weight loss?

PMHx: Previous fractures? Age at menopause?
FHx: Osteoporosis?

DHx: Current (or previous) glucocorticoids? SHx: Diet? Alcohol? Smoking? Sunlight exposure? Exercise?

Examination: Height, weight and posture.
Evidence of arthritis. Muscle strength.

Use a screening tool to assess osteoporosis risk. Q Fracture is helpful in primary care as it does not require bone mineral density to be known in advance (although it is possible to use a preliminary version of FRAX which is then reclassified once bone mineral density is known). Both of these tools have associated Apps available from itunes.

Osteoporosis risk assessment: Use the FRAX-UK score.

Investigations

Urea & Electrolytes, Calcium, Phosphate, Alkaline Phosphatase, Thyroid Function.

DXA scanning to assess bone mineral density is useful in patients with a high FRAX/QF score to determine if treatment for osteoporosis is indicated. Previous low impact fragility fractures in people over 75 can be sufficient to diagnose osteoporosis without DXA.

Vitamin D Serum Vitamin D levels (25-OH Vitamin D) can be difficult to interpret and there is controversy about replacement. Supplementation in patients with osteoporosis, or at high risk of low vitamin D, without checking serum levels is acceptable.

Further Information

More detail about fragility fractures and the prevention of osteoporosis: NICE Clinical Knowledge Summary – Osteoporosis.

FRAX tool APP

Q Fracture App

3. Patients at risk of falls and fractures

Who should receive a multifactorial risk assessment for falls?

The following patients should receive a multifactorial risk assessment:

- Two or more falls in the past 12 months.
- Presentation for medical attention with a fall.
- Difficulty with walking or balance.

What should be covered in a multifactorial risk assessment and management plan?

As part of a multifactorial assessment, perform the following assessment and management plan:

1 Enquire about a history of falls (this needs to be thorough to establish the circumstances of the fall)

How did you fall? What exactly happened?

How many falls have you had in the past year? This helps to differentiate someone with a one-off fall from someone at risk of recurrent falls. If someone has started falling recently, or more frequently recently, it is often due to acute illness which must be evaluated appropriately.

Describe them: can you remember what you were doing at the time? What exactly happened? Where did you fall? (This helps with early identification of environmental risk factors).

Have you ever blacked out or “just gone down” without warning? Beware the patient who says “I must have tripped.” Do they actually remember tripping? Older people with or without cognitive impairment may try and be helpful by saying this but you should assess their risk factors. Also, many patients will not remember that they lost consciousness and if history from the patient seems unclear, try to obtain collateral history. Some people find it helpful to be asked - do you remember actually falling?

Consider the possibility of syncope or near syncope causing falls that are unexplained. Ask about prodromal symptoms like palpitations, as well as about possible precipitants like head turning, coughing, eating, micturition/straining. Consider seizures if these episodes happen in a lying or sitting position.

Do you get dizzy if you stand up quickly? Do you get light-headed? Do you ever feel the room spinning round? Do you feel unsteady or unbalanced? Conditions such as orthostatic hypotension or those causing vertigo may contribute to falls.

Do you have to rush to get to the toilet? Older people with overactive bladder or urinary incontinence will rush to go to the toilet, placing them at increased risk of falls. It is important to differentiate acute urinary symptoms consistent with a urinary tract infection from chronic urinary symptoms.

2 Consider the impact of co-morbidities

Patients with falls may have multiple co-morbidities for which they receive treatment e.g. they may be on antihypertensives or anticoagulants to reduce their risk of vascular events. These may increase the risk of falling or fall-related injuries and a pragmatic approach should be adopted in these circumstances, taking into account the magnitude of benefit of current or intended treatment, the magnitude of harm and the patient’s preferences and goals. Recent NICE and American Geriatrics Society guidelines for multimorbidity may provide a helpful framework for dealing with this situation.



3 Review medications

Medication review, which includes looking at timing of meds, compliance and reduction and withdrawal should be considered for older people with falls, especially if they are frail with multimorbidity.

The best evidence for reducing rate of falls comes from gradual withdrawal of psychotropic medications (antipsychotics, antidepressants, sedatives). However, when an older person presents with a fall, a thorough medication review should be undertaken, and withdrawal or dose reduction of medications should be considered. Particular attention should be paid to antihypertensive medications, especially if there is a history of postural dizziness or postural hypotension. Frail older people should have individualised targets for blood pressure control taking into account co-morbidities, side-effects and patient preferences.

There is often concern about an increased risk of subdural haemorrhage with the use of anticoagulants in patients who fall, although this may be over-estimated.

A mathematical model estimated that, in a patient who takes warfarin because of atrial fibrillation and an annual risk of stroke of 5 per cent, a patient would have to fall nearly 300 times a year for

the increased risk of subdural haemorrhage with anticoagulation to outweigh its benefits. This does not mean that every patient who falls less than 300 times a year should be put on anticoagulation but an individualised decision should be made for the patient taking into account patient preferences, and the potential benefits and harms of treatment.

4 Perform an examination focusing on:

- Vision
- Heart rhythm and rate
- Muscle strength
- Other neurological impairment
- Knee exam
- Peripheral sensation
- Feet/footwear

Vision assessment and referral is recommended as part of a multifactorial intervention to reduce risk of falls but it is unclear whether this is an essential component. Guidelines recommend use of a Snellen chart to assess visual acuity and further assessment for those with a visual acuity of 6/12 or less.

A baseline cognitive assessment is recommended as it may raise awareness that the rest of the falls history is unreliable as well as be helpful in identifying patients unable to consent to, or comply with, any recommendations that may result from CGA.

A routine ECG should be performed. If falls are unexplained or may be consistent with syncope e.g. “I just go down, doctor” then consider the possibility of cardioinhibitory carotid sinus hypersensitivity or arrhythmia that may require further assessment. Arrhythmia should particularly be suspected if the resting ECG is abnormal, as follows:

- Bifascicular block
- Trifascicular block
- Prolonged QRS
- Second degree heart block
- Sinus bradycardia <50bpm or sinus pause >3 seconds
- Long or short QT interval
- Non-sustained VT
- Ventricular ectopics
- Q waves suggesting myocardial ischaemia

A neurological examination should be performed testing muscle strength and searching for neurological abnormalities that may predispose to falls e.g. stroke, Parkinson's disease. Patients should be referred for balance and strength training exercises by appropriately trained professionals. Older people living in the community with a history of recurrent falls and/or a balance and gait deficit are mostly likely to benefit from strength and balance training.

Muscle strength could be reduced due to recent weight loss or drugs (e.g. steroids).

Knees should be examined for deformities such as osteoarthritis or fixed flexion which may contribute to gait instability.

Peripheral sensation should be assessed. Patients with peripheral neuropathy may be unaware of foot position and have impaired balance.

Feet should be examined for bunions, deformities, ulcers or deformed nails. Footwear that fits poorly, has worn heels, high heels or is not laced or buckled is associated with a higher rate of falling.

5 Perform a lying and standing blood pressure

Orthostatic hypotension can be tested by asking the patient to lie down for 5 minutes; blood pressure can then be checked supine, immediately on standing, and again at 1 minute and 3 minutes. It is usually defined by a fall in systolic blood pressure of at least 20mm Hg or in diastolic blood pressure of at least 10 mm Hg.

Patients who become bedbound for long periods of time may become deconditioned, and may develop orthostatic intolerance such that they feel tired or dizzy when sitting out. This can be confirmed by comparing supine blood pressure to when patients are sat out and symptomatic. Treatment involves gradually increasing periods of sitting upright in conjunction with other usual measures.

Postprandial hypotension can occur due to splanchnic vasodilatation after eating. This may be minimised by having smaller meals with lower carbohydrate content, avoiding excess alcohol and standing slowly after eating.

If orthostatic hypotension is present then strategies for treatment include:

- Medication reduction and withdrawal e.g. antihypertensives, alpha blockers, antidepressants.
- Maintaining adequate salt and water intake. Patients with symptomatic postural dizziness should be advised to drink at least one litre of fluid before midday, and up to 2 litres in a day. They should be advised to take adequate salt in their diet (up to 10g/day). Often when dealing with frail older people, advice that seemed sensible in healthy middle age is reversed in later life when other problems such as falls arise.
- If conservative measures are inadequate, then a trial of fludrocortisone at doses between 50-300 micrograms daily can be instituted. This is a synthetic mineralocorticoid that causes salt and water retention. Patients should be monitored for supine hypertension, signs of fluid overload and electrolyte abnormalities.

6 Perform a “Get up and Go Test”

This is performed by asking the patient to rise from a standard armchair, walk a fixed distance across the room, turn around walk back to the chair, and sit down. Whilst the test can be scored from 0-5, or timed over a distance of 3 metres, in primary care it is best used as a way to evaluate gait and balance. In particular observe:

- Sitting balance
- Ability to move from sitting to standing position, including symptoms of postural dizziness
- Pace of walking
- Obvious gait abnormalities e.g. stroke disease, Parkinsonism, foot drop
- Ability to turn steadily.

The patient’s usual walking aid should be used during this test.

7 Assessment of home hazards by a trained professional, usually an occupational therapist

This may identify hazards that need to be addressed such as loose carpets, seats that are too low or dim lighting, or safety devices that need to be installed such as handrails or grabrails.

Calcium and vitamin D supplementation has been shown to reduce fracture rates in older people in long term care facilities or sheltered accommodation but currently is not recommended for routine use.

Patients who fall are at higher risk of fractures and should have their bone health and fracture risk assessed in accordance with NICE guidance using a tool such as FRAX. Bear in mind that FRAX may underestimate the short term risk of fractures in people over the age of 80.

Further information

National Guidance for the management of falls and syncope

Panel on Prevention of Falls in Older Persons AGS, British Geriatrics S. Summary of the Updated American Geriatrics Society/British Geriatrics Society Clinical Practice Guideline for Prevention of Falls in Older Persons. *Journal of the American Geriatrics Society* 2011;59(1):148-57.

National Institute for Health and Clinical Excellence. Falls: Assessment and Prevention of Falls in Older People. Falls: Assessment and Prevention of Falls in Older People. London, 2013.

Brignole M, Alboni P, Benditt DG, et al. Guidelines on management (diagnosis and treatment) of syncope-update 2004. Executive Summary. *European heart journal* 2004;25(22):2054-72.

Decisions about Anticoagulants in People who fall

Man-Son-Hing M, Nichol G, Lau A, et al. Choosing antithrombotic therapy for elderly patients with atrial fibrillation who are at risk for falls. *Archives of Internal Medicine* 1999;159(7):677-85.

Benefits and Risks of prescribing and other treatments in Multimorbidity and Frailty

NICE Guide on Clinical Assessment and Management of Multiple Long-Term Conditions NG56.

American Geriatrics Society Expert Panel on the Care of Older Adults with Multimorbidity. (2012). Guiding Principles for the Care of Older Adults with Multimorbidity: An Approach for Clinicians. *Journal of the American Geriatrics Society*, 60(10), E1–E25.

Scottish Guidance for prescribing in Frail Adults, 2013 (includes an excellent table summarising numbers needed to treat to achieve benefits for some common drugs).



4. Patients presenting with depression

Treatment for depression, as with any co-existing physical health problems, should be optimised. General advice should include good sleep hygiene, maintaining physical activity and limiting alcohol intake.

- For mild or subthreshold symptoms, psychosocial interventions such as increasing social contact and physical exercise may be sufficient. Medication should not be offered as a first-line treatment but reserved for those who do not respond to initial measures.
- When drug treatment is required, selective serotonin re-uptake inhibitor (SSRI) should be the first-line therapy. SSRIs may cause hyponatraemia, postural hypotension, and increase the risk of gastrointestinal bleeding.
- Tricyclic antidepressants have anti-cholinergic side effects and should be avoided in older people.

- Psychological therapies are effective in older people, and in combination with drug treatment are more effective than either therapy alone.
- Those with moderate to severe symptoms are likely to require referral for specialist support.
- People who have responded to medication should continue for at least six months after recovery to reduce the risk of relapse.

Further information

Treating depression in adults generally: NICE CG 90.

Treating depression in adults with long term health issues: CG91; See also an online learning module based around CG91: BMJ Learning.

Depression in older people: BMJ 2011; 343:d5219.

5. Patients presenting with confusion and delirium

Delirium is a disorder in which there is an acute confusional state, usually with a fluctuating course, characterised by disturbed consciousness, cognitive function or perception. The disorder is usually caused by a medical disorder, substance intoxication/withdrawal or medication side effect. In older people, especially those with pre-existing cognitive impairment, it is usual to find several factors contributing to delirium.

Prevalence

Delirium normally occurs over hours to days and lasts for days to weeks, although longer periods have been reported.

The prevalence of delirium in the community is 1-2 per cent although this rises to 14 per cent in people over the age of 85. In nursing homes, or post-acute care settings, prevalence may be even higher with figures up to 60 per cent.

The cause for delirium in older people is usually multifactorial. Whereas young people who are not at risk of delirium may yet develop delirium if they are subject to enough insult e.g. major surgery, severe pain and use of multiple sedative/anaesthetic drugs on an intensive care unit, older people with pre-existing dementia may develop delirium if they are in pain or constipated or started on a new medication (although it is usual to find multiple contributing factors).

Risk factors

Risk factors for delirium include:

- Age: over 65 years.
- Pre-existing cognitive impairment or dementia.
- Severe illness.
- Current hip fracture.

Clinical presentation

Delirium should be suspected if there is:

- An acute confusional state.
- A change in perception e.g. visual or auditory hallucinations.
- A change in physical function e.g. reduced mobility, agitation, sleep disturbance.
- A change in social behaviour e.g. withdrawal, lack of co-operation for reasonable requests, alterations in mood, change in communication/attitude.

Often patients may be labelled as “not themselves,” “generally unwell,” or “generally deteriorating.” Even where patients do not meet all the criteria for a diagnosis of delirium, they may benefit from the approach to diagnosis and management outlined below, bearing in mind the other diagnoses that may be relevant to presentations such as reduced mobility.

Diagnosis

The Single Question in Delirium test can pick up 80 per cent of patients with delirium by asking the question: “Do you think [patient’s name] has been more confused lately?”

NICE guidance recommends use of the Confusion Assessment Method for diagnosis of delirium. Delirium can be diagnosed when items 1 and 2 are present, and either item 3 or item 4, as follows:

- 1** Acute onset and fluctuating course. Should be easily obtained from a collateral history.
- 2** Inattention. Did the patient have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said? This can be assessed whilst talking to the patient, or, for example inability to count backwards from 20-1. Ability to recite months of the year backwards is another good test for inattention.

- 3 Disorganised thinking. Was the patient's conversation rambling and incoherent? Did they demonstrate an unclear or illogical flow of ideas? Did they switch rapidly from subject to subject?
- 4 Altered level of consciousness. Is the patient hyper-alert, drowsy or difficult to rouse?

Management

Once delirium has been identified and diagnosed, a multifactorial assessment and management plan should be undertaken addressing the following features:

Treat infection if it's there, but only if it's there. Whilst infection is a common cause of delirium, it is not the only cause and is not present in all cases. Urinary tract infection, in particular, is commonly over-diagnosed in this scenario.

Address hydration status. Many (although not all) patients with delirium are dehydrated and a clinical assessment of volume status should be undertaken- this will probably include assessment of postural changes in blood pressure. Severely dehydrated patients or those with hypotension or suspicion of acute kidney injury should have blood tests and usually be referred to secondary care for further assessment. Patients with mild dehydration or who are not currently dehydrated should be encouraged with oral rehydration. This may be achieved by offering fluids and recording intake, aiming for an intake adequate to restore and/or maintain hydration. Another strategy may be to offer small sips of fluids e.g. 60mls with each interaction with the patient.

Address nutritional status. Many patients with delirium may not eat as much as usual and will need assistance with their oral intake. Offer foods rich in calories and that are known to be favoured by the patient. Record and monitor the patient's weight, and consider referral to a dietitian based on locally agreed pathways.

Treat constipation. Many older patients with delirium who do not eat or drink much may become constipated. Laxatives should be prescribed to constipated patients in line with local policy, and taking into account patient preferences e.g. whether they are capable of the volume of liquid necessary for some laxatives.

Treat pain. Regular paracetamol is a part of many multi-component interventions for delirium. A weak opioid should be considered on a prn basis and analgesia titrated to pain, whilst being mindful of common side effects of opioid analgesia. This means that drugs like tramadol, oramorph, buprenorphine and codeine can be useful – but close surveillance will be needed to respond quickly to the possibility of making confusion worse.

Identify, and treat urinary retention. This is commonly missed in older people. It is not uncommon to still pass urine, and indeed have urinary frequency and urgency, in the presence of significant post-void residual urine volumes. Urinary retention may contribute to agitation. Underlying contributory factors such as constipation, use of anticholinergic drugs and immobility should be addressed. If a catheter is required, it should be used only while the person is unwell and plans for its removal should be considered part of the process of insertion.

Encourage mobility. Patients should be encouraged to mobilise as much as possible.

Review medications. Consider whether a medication has been stopped or started recently.

Typical offending medications include:

- Tricyclic antidepressants e.g. amitriptyline.
- Antimuscarinics e.g. oxybutynin.
- Antihistamines e.g. cetirizine, loratadine, hydroxyzine.
- H2 receptor antagonists e.g. ranitidine.
- Opioids e.g. codeine.
- Benzodiazepines e.g. lorazepam.
- Gabapentin.
- Theophylline.
- Hyoscine.

However, longstanding medications may also play a role in development of delirium and a thorough medication review should take place, considering, in particular, the indications for the medication, potential side effects and anticholinergic burden-ACB, which can be considerable when several offending medications are co-prescribed (see later for more information about the ACB).



Drug/alcohol withdrawal. Don't forget to consider this as a potential cause of delirium.

Assess sleep disturbance. As much as possible, patients should be encouraged to maintain a normal sleep/wake cycle. The use of hypnotics to aid sleep is usually discouraged and these may contribute to delirium. Melatonin has been tried; individual experience may show benefit but no RCT data supports its use. It may offer a useful alternative to benzodiazepines.

Educate and re-orientate. Caregivers should be educated as to the diagnosis of delirium and how they can help. In particular, re-orientation strategies should be employed.

Environment

The use of large, clearly visible clocks and calendars is recommended, and wherever possible patients should be looked after in a familiar environment by familiar relatives or staff. Hearing aids and spectacles should be used. Rooms should be well lit during the daytime and unnecessary noise should be kept to a minimum.

Sedation

These medications should be avoided if at all possible, and if used, used at the lowest possible dose for as short a time as possible. NICE guidance recommends uses of haloperidol as first line (off-licence uses).

A dose of 0.5mg can be given two hourly, up to a maximum of 5mg/24 hours. A baseline ECG is recommended as haloperidol can sometimes cause prolongation of the QTc interval. Haloperidol should be avoided if there is a history of Parkinson's disease, CNS depression

or clinically significant cardiac disorders e.g. recent acute myocardial infarction, uncompensated heart failure, arrhythmias treated with class IA and III antiarrhythmic medicinal products, QTc interval prolongation, history of ventricular arrhythmia or torsades de pointes clinically significant bradycardia, second or third degree heart block and uncorrected hypokalaemia.

Lorazepam is recommended if there is a contraindication to haloperidol. The recommended dose is 0.5mg 2 hourly up to a maximum of 3mg/24 hours.

If sedation is used then it should be reviewed and weaned as soon as possible, ideally within 24–48 hours, and certainly no more than seven days.

Further reading

- 1 NICE Guidance on Delirium: Delirium: diagnosis, prevention and management. London: National Institute for Health and Clinical Excellence, 2010.
- 2 Using the Confusion Assessment Method in practice: ICAM provides useful videos demonstrating use of the CAM.
- 3 The Royal College of Psychiatrists information on delirium for patients and their relatives/carers.
- 4 The Anticholinergic burden including a list of medication and its 'score': Rudolph JL, Salow MJ, Angelini MC, et al. The anticholinergic risk scale and anticholinergic adverse effects in older persons. *Arch Int Med* 2008; 168(5): 508-13.

6. Mental capacity issues

Assessment of capacity to make decisions should be a routine part of assessment. However, just because a person is ill, advanced in years or has frailty, it does not automatically follow that they lack capacity. Capacity is assumed to be present until shown otherwise.

This is formally defined under The Mental Capacity Act 2005 in England & Wales. In Scotland, the relevant legislation is the Adults with Incapacity (Scotland) Act 2000. In Northern Ireland, new mental health legislation was in draft form at the time of publication (the Mental Capacity Bill).

Principles

Under the Mental Capacity Act 2005 (MCA), the following principles apply:

- Capacity is assumed to be present until shown otherwise. The onus is on the person assessing capacity to provide evidence of its absence
- Individuals should receive whatever support they require to make their own decisions; for example; interpreters, communication aids and time.
- Individuals have the right to make decisions others may see as unwise or eccentric, but the reasons for eccentric decisions should be explored
- Decisions made on behalf of people lacking capacity must be in their best interests; decision makers should try to establish what the person would want in this situation
- Interventions made on behalf of a person lacking capacity must be the least restrictive option. For example, for a person lacking capacity who is needing support with personal care, remaining at home with carer support is less restrictive than moving to a care home.
- Capacity to decide is specific to the decision in question, and so may be present for some choices (e.g. what to have for breakfast) but absent for others (e.g. deciding whether to have an operation).

- If there is a possibility of capacity returning, and the decision can be delayed, the assessment should wait until the person has recovered. This is particularly important for people with delirium who are likely to improve.

Testing capacity

There is no such thing as a 'general test of capacity'. It is always specific to the decision in question, and can be undertaken by any professional with appropriate training. It does not usually require specialist mental health input unless there is diagnostic doubt about a mental health disorder.

There are two stages to the test of capacity:

- 1 The patient cannot make a decision due to 'a condition of mind or brain.' For older people this is most often dementia or delirium, but other conditions such as learning disability or severe depression may also occur. It therefore follows that if a person does NOT have a condition of mind or brain, capacity should be assumed present.
- 2 The person cannot understand, retain, weigh up, or communicate information relevant to the decision in question. Evidence of inability to do this relevant to the decision must be recorded.

Both parts of the test must be satisfied in order to state that capacity is lacking. The reasons must be clearly documented.

Advance Care Planning and mental capacity

Advance care planning for a person who has lost capacity must be in accordance with the person's best interests. Determination of best interests must take into account that person's previous wishes and feelings as far as this can be ascertained.

Previous wishes and feelings may be established by:

- 1 An Advance Statement.
- 2 The views of a legal proxy with powers appropriate to the decision in question.

3 Verbal statements made by the person before capacity was lost.

1 and 2 are legally binding and must be observed. It is good practice to seek the views of those close to the patient, as well as other members of the healthcare team when taking decisions in a person's best interests.

Written Advance Statements may be informal or formal, but all should be recorded in the patient's record and available to all teams involved in their care.

Advance decision to refuse treatment (ADRT)

This must be both valid and applicable. 'Valid' means the document is signed by the patient, dated, and witnessed. There must be no evidence that the patient has subsequently changed their mind about the ADRT. 'Applicable' means the ADRT is relevant to the current situation. If the document concerns life-sustaining treatment, it must state the refusal applies even though it may shorten life.

Powers of Attorney

A person with capacity (the donor) may appoint another person (the attorney) to make decisions on their behalf when they lose capacity. Under the Mental Capacity Act 2005, the Adults with Incapacity (Scotland) Act 2000, and the draft Mental Capacity Bill (Northern Ireland), attorneys may be appointed for property and financial affairs, and/or for health and welfare decisions. Lasting Powers of Attorney must be registered with the Office of the Public Guardian before coming into effect. It is good practice to ask to see the papers of a person who claims to act as Attorney.

Independent Mental Capacity Advocate

In England & Wales, when a decision is required for a person lacking capacity who is unfriended, consideration should be given to appointment of an Independent Mental Capacity Advocate (IMCA). A person is 'unfriended' if they lack effective next of kin and have no other friends or relations to speak on their behalf. An IMCA is required for serious medical decisions, and when a change of residence (e.g. moving to a care home) is contemplated.

Deprivation of Liberty Safeguards

People who lack capacity should only be deprived of their liberty when it is in their best interest, and in the least restrictive way possible. Examples of deprivation of liberty include:

- Medication being given against a person's will.
- Staff having complete control over a patient's care or movements for a long period.
- Staff making all decisions about a patient, including choices about assessments, treatment and visitors.

People affected by such deprivations may be in hospital, care homes or supported living environments. The nurse in charge or home manager must apply to the Court of Protection for authorisation to ensure the loss of liberty is lawful. The safeguards allow for a representative for the person affected who may challenge the deprivation and ensure it is reviewed regularly.

Further information: mental capacity in Scotland

The *Adults with Incapacity (Scotland) Act 2000* describes the definition of (and therefore the practice of testing for) capacity slightly differently. The Act has five overarching principles: of benefit to the person, of using the least restrictive option, of taking into account the wishes of the person, of involving relevant others and of encouraging the development of new skills. Importantly, the Act allows the courts to appoint a Guardian to manage the financial and welfare affairs of a person who lacks capacity. In the absence of a legal proxy, medical treatment is authorised under the Act as long as the overarching principles are followed.

At present there are no specific provisions for Deprivation of Liberty – if someone who lacks capacity requires to be in a setting not of their choosing then the *Mental Health (Care and Treatment) (Scotland) Act 2003* may need to be utilised. For further details on the *Adults with Incapacity Act* see the Scottish Government website.

7. Patients presenting with urinary incontinence

Bladder control problems are a common problem with two out of five women over the age of 60 affected.

Types of incontinence

Incontinence can result from:

- 1 Weakness of the urinary outlet - Stress Incontinence.
- 2 Failure of the bladder to store urine because of high bladder pressure - Urge Incontinence.
- 3 A combination of 1 and 2 - Mixed Incontinence.
- 4 A bladder that is overfull and overflows - Bladder outlet obstruction.
- 5 Abnormal communications of the urinary tract - Fistulae.
- 6 Incontinence due to more general impairment e.g. cognitive, functional, affective – Functional Incontinence.

Assessment

Any consultation between an older person and a health care professional should include a screening question about continence issues. If the answer is positive, a full assessment should be offered.

Validated screening questionnaires are also available for selected patients. Several of these have been developed. See the International Consultation on Incontinence Modular Questionnaire (ICIQ).

History

Essentially the symptoms can be divided into problems with storage or voiding.

Storage: Frequency, Urgency, Stress Incontinence, Urge Incontinence, Nocturia

Voiding: Post micturition dribble, Hesitancy, Terminal dribbling, Incomplete emptying, Intermittent stream

Ask specifically about

- Pain, dysuria and haematuria- these symptoms need urgent review.
- Urinary symptoms during childhood – for example nocturnal enuresis.
- Bowel function and frequency.
- Systemic symptoms and those symptoms that could be associated with diseases that predispose a patient to urinary incontinence e.g. diabetes.
- Associated co-morbidities (CCF, COPD, DM) and previous surgical procedures, particularly those in or around the pelvis.

Obstetric and gynaecological history are also important in female patients.

Medication review is essential as many drugs can exacerbate urinary incontinence.

Examination

- CVS – look for signs of chronic cardiorespiratory disease.
- Cognition – AMT as a screen for cognitive decline.
- Neuro - assess gait, check dorsiflexion of the toes (S3) and perineal sensation (L1-L2), sensation of the sole (S1) and posterior aspect of the thigh (S3).
- Abdo - palpate for masses or enlarged kidneys, palpate and percuss for a distended bladder.
- Digital Rectal Examination (DRE) should be performed in all patients to assess anal tone, presence of constipation or rectal mass and to assess prostate size in males.
- Pelvis - Inspection may reveal vaginal atrophy or prolapse.

The pelvic floor muscle strength can be assessed during a vaginal examination.

One grading system is the Oxford classification which is a 6 point scale: 0 = no contraction, 1 = flicker, 2 = weak, 3 = moderate, 4 = good, 5 = strong contraction.

Finally ask the patient to cough or strain to enable demonstration of stress incontinence; repeat this with the patient standing if possible.

Investigations: initial

- Frequency / Volume Chart
- Urinalysis +/- MSU for MC&S
- Blood tests – FBC, U&E, Calcium, Glucose
- Post-void bladder scan (Other imaging modalities are not routinely indicated unless there are specific indications).

Specialist referral

Refer patients with the following

- Haematuria
- Prolapse beyond the introitus
- Pain associated with the micturition cycle
- Suspicion of prostate cancer

Consider referral if no improvement with anticholinergic or beta 3 agonist.

General management

Diagnose and manage reversible causes/ precipitants of urinary incontinence: delirium, restricted mobility, constipation, UTI, medications, vaginal atrophy, diabetes, CKD

Stress incontinence

Risk Factors: Childbirth, post surgery (e.g. prosectomy), infection, neurological disease, age, female sex, post hysterectomy, obesity.

Management:

Lifestyle: smoking cessation, weight reduction, managing constipation, reducing alcohol and caffeine.

Medical: duloxetine is NO longer recommended for 1st or 2nd line treatment.

Surgical: mid urethral sling insertion.

MDT: continence advisor referral, pelvic floor exercises, vaginal cone.

Urge incontinence

Causes:

- Idiopathic: most common and known as Overactive Bladder.
- Neurogenic: associated with neurological conditions e.g. multiple sclerosis, parkinsonism, stroke or spinal cord injury
- Bladder outlet obstruction
- Infective: urinary tract infection, but beware coincidental asymptomatic bacteriuria. Only diagnose infection as a cause of urgency if acute onset and symptoms resolve on first treatment with antibiotics.

Management:

1. Lifestyle: reduce fluid intake, especially in the evening (advise no drinks after 8pm), reduce caffeine and alcohol intake, weight reduction, manage constipation.

2. Medical: antimuscarinic drugs. These are the mainstay of treatment. They act on the M3 receptors on the detrusor muscle to reduce contraction. They do have common side effects and need to be used with caution in the elderly (the newer agents are said to be more selective for the M3 receptor and therefore have less CNS side effects). Examples include: oxybutynin, tolteridone, darifenacin, trospium, solifenacin and propiverine.

NICE recommended first line agents are:

- Oxybutynin (but not to be used in older adults with frailty or in Parkinson's Disease)
- Tolteridone
- Darifenacin

If a first line agent is not tolerated or does not work, then a second agent should be trialed.

- Beta-3-adrenoceptor agonists (Mirabegron)

If there are contraindications, intolerable side effects or poor efficacy to antimuscarinics, a trial of Mirabegron can be considered. Beta-3-adrenoceptors cause the bladder to relax, which helps it to fill and also to store urine.



- Intravaginal oestrogens

NICE recommend their use for women who have vaginal atrophy and symptoms of overactive bladder.

3. MDT: Community continence advisor, bladder retraining, pelvic floor exercises.

Bladder outlet obstruction

Causes: Phimosis, prostate cancer, cervical cancer, colon cancer, BPH, calculi

Management:

1. Patient education: Bladder Outlet Obstruction (BOO) often coexists with Overactive Bladder (OAB).

2. Medical: there are two medical options for treating BPH:

- Alpha adrenoceptor antagonists (alpha blockers) e.g. doxazocin - these drugs reduce the smooth muscle tone of the prostate.
- 5 alpha reductase inhibitors e.g. finasteride - these drugs reduce prostate volume by blocking the conversion of testosterone to dihydrotestosterone.

Surgical: the surgical management of BOO will depend on the actual cause and will require referral to urology or urogynaecology.

A transurethral prostatectomy (TURP) can be considered in cases of Benign Prostatic Hypertrophy.

Further information

NICE Clinical Guideline: Management of Urinary Incontinence in Women.

NCBI Sexual health in older people and the impact of incontinence.

Useful eLearning resource:

Continence 1: Epidemiology, Physiology and Anatomy.

Continence 2: Patient Assessment.

Continence 3: Patient Management.

8. Weight loss and nutrition issues

Recognition of nutritional problems in older people is important as these are associated with poor prognosis but are potentially treatable. Any assessment of frailty should include some key questions about diet, appetite and weight, as these can indicate specific problems related to nutrition as well as being markers of other underlying medical conditions.

Assessment

Nutritional status can be easily assessed using some basic tools such as the weight (or change in weight), BMI or MUST score (see below). These are non-specific but reasonably sensitive. The mini nutritional assessment (MNA) is useful in care homes as it includes hydration and allows for a care plan to be created.

Note that some patients will have a raised BMI due to excess body fat – this neither rules out frailty nor poor nutritional status – protein/energy deficiency and sarcopenia are common in older people including those with raised BMI (in fact body fat can make significant loss of muscle bulk difficult to spot). Unintentional weight loss is also an important marker of problems with nutrition or undiagnosed systemic illness such as malignancy or heart failure.

Frequently used risk factors for malnutrition are:

- Involuntary weight loss (more than 5% over the last month or more than 10% over the last six months).
- BMI less than 20 for elderly ($\geq 65y$).
- Decreased appetite or reduced food intake.

Other related issues include:

- Assessment of oral health (including dentures).
- Change in taste – older people can respond to a change in taste ‘everything tastes salty/sweet’ by not eating. Some drugs especially night sedation (the Z drugs) can alter taste sensation.
- Swallowing problems – asking about choking and things getting ‘stuck’ are often more productive than ‘difficulty in swallowing’ (Always refer swallowing issues for further investigation).
- Thyroid function.

- Alcohol intake.
- Bowel habit, as constipation can lead to reduced appetite.
- Older people are more likely to have B12 or folate deficiency due to diet or malabsorption which may be difficult to detect clinically.
- Also of value are assessment of mood (loss of appetite as a marker of depression) and cognition / function (inability to prepare or obtain adequate diet).
- Loss of appetite can also be a feature of dementia but generally only in the late stages – unless dementia is severe a change in appetite is more likely a marker of an acute illness, behavioural/psychological symptoms of dementia or undiagnosed systemic problem (eg constipation or malignancy).

Management

Referral to the local dietetics service can be a cost-effective way of managing poor nutrition once secondary causes have been excluded. Oral protein and energy supplementation does result in weight gain and may also slightly improve survival in undernourished older people. Medications to stimulate appetite are unlikely to be effective. Decisions about supplemental feeding in patients unable to take this orally (ie by enteral tube feeding) are complex. The effects of increased nutrition may be negligible (and possibly harmful) in advanced frailty and dementia.

Further information

More about nutrition in general: Alibhai SMH, Greenwood C, Payette H. An approach to the management of unintentional weight loss in elderly people (Canadian Medical Association Journal. 2005;172(6):773-780. doi:10.1503/cmaj.1031527) NCBI.

To access the core tools:

BMI online calculator (weight(kg)/height²(m²)): MUST Toolkit.
MUST app.
Mini Nutritional Assessment MNA.



9. End of life care issues

Many of the principles of care at the end of life are shared with comprehensive geriatric assessment, however the philosophy of treatment is likely to shift even further towards symptom management rather than long-term disease treatment and health maintenance.

A key component in the assessment of the dying patient is recognition by the healthcare team, the person themselves, and their family and friends that the person is near to the end of life. This can be relatively clear with a well-recognised, progressively terminal diagnosis such as metastatic cancer, but can be more difficult if the underlying problem is less well circumscribed and widely understood, such as in advanced frailty. Frailty correlates with prognosis but even in advanced states, this is often missed due to its insidious progress and the difficulties differentiating frailty from 'normal' ageing.

End of Life care refers specifically to the last few days or hours of life, when maintenance of comfort and dignity, and avoidance of pain and distress take priority. Efforts to codify an approach to this are challenging, not least due to cultural attitudes to death and dying.

It is not disputed though that, with or without a formal tool to assist the assessment and treatment of a person at the end of their life, an individualised approach is key. Local guidelines and documentation standards may be useful here.

Further reading

The RCN Guide to End of Life Care.

Gold Standards Framework: A set of resources to promote high quality end of life care may be found here: www.goldstandardsframework.org.uk

Coordinate My Care Record: An online clinical record to document information and clinical plans for people at the end of their lives.

See also the Good Practice Guide in this series: Care and support planning in CGA.



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