HCPA Multifactorial Risk Assessment

Guidance Notes for using the Multifactorial Risk Assessment (MFRA) for Falls Prevention (Jan 2024)

This information is taken from the World Guidelines for Falls Prevention and Management for Older Adults: A global Initiative (2022), as well as from the NICE CG161 2013, the National Audit of Inpatient Falls (NAIF) and Public Health England Guidance - Falls: applying All Our Health (Updated 31 January 2020) and is intended to accompany the Falls Multifactorial Risk Assessment document.

What is a fall?

A fall is an event which results in a person coming to rest inadvertently on the ground or floor or other lower level. Falls, trips and slips can occur on one level or from a height (Montero-Odasso *et al*, 2022).

Statistics

- Falls and fall-related injuries are a common and serious problem, with unfortunate consequences. People aged 65 and older, often have the highest risk of falling, with 30% of people older than 65 and 50% of people older than 80 falling at least once a year. For this group, the consequences are also often more serious.
- About 40–60% of falls result in major lacerations, traumatic brain injuries, fractures and death
- Other complications of falls include distress, pain, loss of self-confidence, reduced quality of life, loss of independence, and mortality.
- Falling also affects the family members and carers of people who fall. Falls are estimated to cost the NHS more than £2.3 billion per year (College of Optometrists/British Geriatrics Society, 2011). Therefore, falling has an impact on quality of life, health and healthcare costs.
- Falls are more common among older adults in clinical care settings, e.g. hospitals, subacute and rehabilitation units, assisted living settings, and care homes.

Consequences of falls

Falls are not an inevitable result of ageing, but they do pose a serious concern to many older people and to the health system. Older people have a higher risk of accidental injury that results in hospitalisation or death than any other age group (Cryer 2001).

The Royal Society for the Prevention of Accidents (ROSPA) estimates that one in three people aged 65 years and over experience a fall at least once a year – rising to one in two among 80 year olds and older.

Although most falls result in no serious injury, approximately 5 per cent of older people in community-dwelling settings who fall in a given year experience a fracture or require hospitalisation (Rubenstein et al. 2001).

Incidence rates for falls in nursing homes and hospitals are two to three times greater than in the community and complication rates are also considerably higher. Ten to 25 per cent of institutional falls result in fracture, laceration or need for hospital care (Rubenstein 2001).

The number of falls and related injuries will likely further increase (Montero-Odasso *et al,* 2021, and NICE, 2019) partly as there are more older adults, but also because of increasing prevalence of multimorbidity, polypharmacy and frailty among them.

The impact of not being able to get up after a fall can include a long lie, and potentially, pressure sores, hypothermia and death

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Longer term consequences of falls are:

- A fear of falling and loss of confidence to mobilise and move about safely, potentially leading to social isolation and depression and an increase in sedentary behaviour
- An increase in dependency and disability
- Poorer health outcomes from being more sedentary, including: an increased risk of infection, diabetes, high blood pressure, obesity, coronary heart disease, stroke, and other conditions that effect the blood vessels.

Who should we assess? *(Guidance from the World guidelines for falls prevention and management for older adults: a global initiative, 2022)*

Low Risk:

An older adult who does not have a history of falling, or who had a single non-severe fall and no gait or balance problems, is deemed as being at low risk. Since low risk does not mean 'no risk at all', recommend primary prevention for these older adults. This 'low risk' group should be reassessed annually.

Intermediate Risk:

Older adults who had a single non-severe fall but also have gait and or balance problems, should be considered as being at 'intermediate risk' and would benefit from a strength and balance exercise intervention since evidence shows that this type of exercise is effective in reducing falls risk [2].

High Risk

- Finally, those at 'high risk' include older adults with a fall and one or more of the following characteristics: (i) accompanying injury, (ii) multiple falls (≥2 falls) in the previous 12 months, (iii) known frailty, (iv) inability to get up after the fall without help for at least an hour and (v) accompanied by (suspected) transient loss of consciousness. **These high-risk older adults should be offered a multifactorial falls risk assessment**. This assessment should be performed by a healthcare professional with appropriate skills and experience, normally in the setting of a specialist falls service. This assessment should be part of an individualised, multifactorial intervention (NICE CG161).
- Suspicion of a syncopal fall should trigger syncope evaluation and management.
- With regard to frailty for risk stratification, this can be either previously identified frailty or a positive result on a validated instrument used for its detection. Commonly used frailty assessment instruments include the Frailty phenotype (FP) [47] and the Clinical Frailty Scale (CFS) [48]. The FP includes 5 criteria: slow gait speed, low physical activity, unintentional weight loss, exhaustion and muscle weakness; where ≥3 components categorises an individual as 'frail', 1 or 2 as prefrail, and 0 as not frail. This should be assessed by a qualified clinician.

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- Older people in contact with healthcare professionals should be asked routinely whether they have fallen in the past year and asked about the frequency, context and characteristics of the fall/s.
- Older people reporting a fall or considered at risk of falling should be observed for balance and gait deficits and considered for their ability to benefit from interventions to improve strength and balance. (Tests of balance and gait commonly used in the UK are detailed in section 3.3.) [2004]

NICE CG161 recommendations

- Do not use risk prediction tools especially those that assign a numerical score or hierarchy of risk.
- Do not offer "one size fits all" blanket interventions.
- Do use individual multifactorial assessment
- Do use multifactorial intervention plans
- Do provide relevant oral and written information about individual falls risk factors

Multifactorial falls risk assessment (NICE, 2017) is:

An assessment with multiple components that aims to identify a person's risk factors for falling. The more risk factors a person has, the higher their risk of falling.

This assessment should be performed by a healthcare professional with appropriate skills and experience. It should be part of an individualised, multifactorial intervention.

A multifactorial assessment may include the following:

- identification of falls history
- assessment of gait, balance and mobility, and muscle weakness
- assessment of osteoporosis risk
- assessment of the older person's perceived functional ability and fear relating to falling
- assessment of visual impairment
- assessment of cognitive impairment and neurological examination
- assessment of urinary incontinence
- assessment of home hazards
- cardiovascular examination and medication review

What are the risk factors?

The risk of falling is multifactorial, and prevention is usually based on assessing multiple risk factors [NICE, 2013a]**.**

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- A history of falls is one of the strongest risk factors for a fall, and all older people in regular contact with healthcare professionals should be asked routinely whether they have fallen in the past year.
- Other risk factors for falls in older people include:
    - A history of falls — after a first fall, people have a 66% chance of having another fall within a year [Vieira, 2016].
    - Conditions that affect mobility or balance, such as arthritis, diabetes, incontinence, stroke, syncope, or Parkinson's disease.
    - Other conditions, including muscle weakness, poor balance, visual impairment, cognitive impairment, depression, and alcohol misuse.
    - Polypharmacy, or the use of psychoactive drugs (such as benzodiazepines) or drugs that can cause postural hypotension (such as anti-hypertensive drugs).
    - Environmental hazards, such as loose rugs or mats, poor lighting, uneven surfaces, wet surfaces (especially in the bathroom), loose fittings (such as handrails), and poor footwear.
- The more risk factors a person has, the greater their risk of falling.
    - Over 65% of people aged 65 years and over have two or more long-term conditions (multimorbidity) [PHE, 2017].
    - Falls can also be a sign of underlying health issues, such as frailty [PHE, 2017].

(Vieira, 2016; PHE, 2017; Haddad, 2018; Hopewell, 2018; PHE, 2018; BMJ, 2019)

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Supporting information relating to the risk factors identified on the 'Falls Multifactorial Risk Assessment'

(Please note, the Screening Tools and Outcome Measures suggested here are just suggestions, that may be useful when a person has a specific risk factor, which requires more in-depth assessment or intervention to reduce the risk. It is not expected, or necessary, that you use all of the Screening Tools and Outcome Measures for everyone)

Intrinsic Factors

1. History of falls (number in 12 months)

Identify people aged 65 years and over who have had one or more falls in the last 12 months.

People at 'high risk' include older adults with a fall and one or more of the following characteristics: (i) accompanying injury, (ii) multiple falls (≥2 falls) in the previous 12 months, (iii) known frailty, (iv) inability to get up after the fall without help for at least an hour and (v) accompanied by (suspected) transient loss of consciousness. **These high-risk older adults should be offered a multifactorial falls risk assessment**.

- A history of falls is one of the strongest risk factors for a fall, and all older people in regular contact with healthcare professionals should be asked routinely whether they have fallen in the past year. After a first fall, people have a 66% chance of having another fall within a year
- Check history
- Check staff have attended HCPA's training courses for Falls Prevention and Intervention
- Provide the person and their caregiver relevant oral and written information about individual risk factors for falls.

1.1 Education and information giving

- All healthcare professionals dealing with patients known to be at risk of falling should develop and maintain basic professional competence in falls assessment and prevention
- Individuals at risk of falling should be offered relevant oral and written information and support information, about:
  - What measures they can take to prevent further falls
  - How to stay motivated if referred for falls prevention strategies that include exercise or strength and balancing components
  - The preventable nature of some falls
  - The physical and psychological benefits of modifying falls risk
  - Where they can seek further advice and assistance
  - How to cope if they have a fall, including how to summon help and how to avoid a long lie
  - providing up-to-date patient information on falls, such as Get up and go - a guide to staying steady English version | The Chartered Society of Physiotherapy (csp.org.uk)
- The individual's ability to ability to understand and retain information should be considered, and information should also be given to relevant family members and carers if the patient agrees, (or if the individual lacks capacity, in their best interests). This should include:
  - Encouraging them to use the call bell when they need help

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- Informing family members and carers about when and how to raise and lower bed rails
- Providing consistent messages about when a patient should ask for help before getting up or moving about
- Helping the individual to engage in any multifactorial intervention aimed at addressing their individual risk factors

2. Recent history of falls (number in last month) plus causes and consequences

- Check falls diary/ incident reports
- Check care plan
- Causes, Patterns and Trends–
  - Ask about and document how often the person has fallen, the circumstances in which the fall(s) occurred, such as:
    - place
    - time of day
    - whether medication has been changed
    - activity being attempted/performed
    - factors such as, needing the toilet, or being in pain, which may have led to an unsafe or rushed manoeuvre
    - preceding symptoms, for example light headedness or loss of consciousness
  - And the consequences of the fall(s) (such as injuries, fear of falling, difficulty performing daily activities, activity restriction, and/or pain). If possible, obtain an eye-witness account.
  - This will help to distinguish a simple fall (caused by a chronic impairment of cognition, vision, mobility, or balance) from a collapse (caused by an acute medical problem, for example, arrhythmias, transient ischaemic attack, or vertigo).

3. Fear of falling

It is widely documented that there is a deterioration in balance, dual task performance and quality of life, and a decrease in physical activity levels in elderly individuals with a fear of falling.

- Assess fear of falling in older adults with increased fall risk
- Use Falls Efficacy Scale (FES-I) assessment to establish fear of falling

- **The Falls Efficacy Scale International version (FES-I) -** Falls Efficacy Scale (FES and FES-I) Calculator (mdapp.co)

or the **SHORT FES-1** 13.SHORT FES-I FORM.docx which is easier to use, and shorter, (7 questions instead of 16).

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- If indicated, NICE recommend to screen for anxiety using GAD-2 (Generalised Anxiety Disorder Assessment-2) with appropriate onward referral *(see NHS E&N Herts Frailty Pathway)*

Consider referral to specialist.

- Practise mobility and help the person build their confidence.
- Use SMART goal setting to help with this SMART criteria - Wikipedia

4. Frailty

- Use **PRISMA7,**

- **and Timed Up and Go test** to assess for frailty.

- Refer to a clinician (GP or Physiotherapist) for a Clinical Frailty Scale (CFS/Rockwood) Assessment if appropriate. NHS England » Identifying frailty

- Consider general health and lifestyle, including diet and exercise, and mental health support where appropriate.

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COGNITIVE FUNCTION and MENTAL HEALTH

5. Cognitive impairment

Individuals with a cognitive impairment may be at a higher risk of falls due factors such as: confusion, hallucinations, lack of awareness of their own ability, inability to understand/follow instructions, lack of safety awareness.

- Screen for cognitive disorders including executive functioning for example by using clock drawing test How the Clock-Drawing Test Screens for Dementia (verywellhealth.com) or Montreal Cognitive Assessment (MoCA) Montreal Cognitive Assessment (MoCA) Test for Dementia (verywellhealth.com) or Trail Making Test Part B (TMT-B) The Trail Making Test for Dementia: Accuracy and More (verywellhealth.com).
  If indicated, refer to Neuropsychology for further assessment and additional testing.
- If possible, include both the older adult's, and the caregiver's perspectives, when creating the individual falls prevention care plans for adults with cognitive impairment since this strategy has shown better adherence to interventions and outcomes.
- Use strategies known to help the individual understand instructions.
- For people with known cognitive impairment, ensure there is appropriate engagement and mental stimulation strategies are in place, especially around sundowning.
- Check for signs of acute illness if there is increased confusion.
- Ensure Deprivation of Liberty Safeguards (DOLS) are in place where necessary, to ensure any restraint used is the least restrictive option

6. New confusion/delirium/or signs of acute unwellness (e.g., due to dehydration or acute infection (UTI/Chest infection/wound infection)

- Use NEWS2 and RESTORE2 RESTORE2™ official (westhampshireccg.nhs.uk) to establish acute illness and take appropriate action according to NEWS2 and HERTS escalation pathway
- Send urine for analysis
- Ensure plenty of fluids are taken
- Refer to SALT/999 if problems with fluid intake
- Referral to GP/Community Mental Health Team (CMHT) for diagnosis if new onset, but not acute illness
- Assess presence of delirium, preferably structured by, e.g. 4AT Delirium Assessment Tool (4AT) Guide to the 4AT delirium assessment tool — 4AT - RAPID CLINICAL TEST FOR DELIRIUM Delirium Observation Screening Scale (DOS), Layout 1 (yhscn.nhs.uk) or Confusion assessment method (CAM), Confusion Assessment Method (CAM) - Oxford Medical Education with clinical judgement.
- Ensure all appropriate infection control measures are adhered to.

7. Depression and/or anxiety

- Screen for depression using the PHQ-2 (Patient Health Questionnaire – Depression-2) LI042 IG tools.pdf (med-iq.com) with appropriate onward referral (see

NHS E&N Herts Frailty Pathway)

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- Screen for anxiety using GAD-2 (Generalised Anxiety Disorder Assessment-2) Screening Tool : Anxiety Disorders (2-question screener [GAD-2]) : eMentalHealth.ca and Diagnosis | Diagnosis | Generalized anxiety disorder | CKS | NICE with appropriate onward referral (see NHS E&N Herts Frailty Pathway)

- Identification of Frailty V3.pdf (enhertsccg.nhs.uk)
  Common mental health problems: identification and pathways to care | NICE

8. Behaviour

- Assess behaviour, preferably structured.
- Ensure Positive Behaviour Support plans are in place
- Ensure that staff have had training in Positive Behaviour Support

DISEASE HISTORY

9. Health problems that affect falls risk (e.g., Parkinson's Disease, History of Stroke, Diabetes, Osteoarthritis or Rheumatoid Arthritis, Peripheral Arterial Disease, COPD (Chronic Obstructive Pulmonary Disease)

- Refer to Physiotherapist for assessment and advice as appropriate.
- Ensure staff are familiar with conditions and how individuals may present and are aware that there may be an added falls risk.
- Ensure vigilance and that good verbal cues are given E.g., for numbness in feet.
- Parkinson's Disease What is Parkinson's? | Parkinson's UK (parkinsons.org.uk)
- History of Stroke (which may affect strength, co-ordination, and balance) Stroke Association | Home
- Diabetes Diabetes - NHS (www.nhs.uk) (which may cause a loss of consciousness)
- Osteoarthritis Osteoarthritis - NHS (www.nhs.uk) or Rheumatoid Arthritis (which may cause pain, weakness, and unsteadiness) Rheumatoid arthritis - NHS (www.nhs.uk)
- Peripheral arterial disease (which may cause numbness in the feet) Peripheral arterial disease (PAD) - NHS (www.nhs.uk)
- Chronic Obstructive Pulmonary Disease (COPD) (which may cause shortness of breath and anxiety leading to rushing and therefore being at a higher risk of falling) Chronic obstructive pulmonary disease (COPD) - NHS (www.nhs.uk)

10. Dizziness/vestibular signs (e.g., Inner ear problems - infections, Vertigo, Ménière's Disease)

- Ensure staff are familiar with conditions and how individuals may present and are aware that there may be an added falls risk.
- Ensure vigilance.

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- Give time in standing, walk on spot before mobilising. Have 2-3 staff with wheelchair/to move chair behind in case service user moves forward from the chair.
- Ensure the person is hydrated before standing up.
- Consider referral to ENT specialist.
- Inner ear problems such as infections, Vertigo, Ménière's Disease (which may cause balance disturbances) Ménière's disease - NHS (www.nhs.uk)

Ménière's disease is a condition of the inner ear that causes sudden attacks of:

- feeling like the room is spinning around you (vertigo)
- a ringing noise inside the ear (tinnitus)
- pressure felt deep inside the ear.
- hearing loss

Symptoms of Ménière's disease

During an attack of Ménière's disease, you may:

- feel dizziness with a spinning sensation (vertigo)
- feel unsteady on your feet.
- feel sick (nausea) or be sick (vomit)
- hear ringing, roaring or buzzing inside your ear.
- have a sudden drop in hearing.

11. Syncope syndrome (e.g., Fainting, blackouts, Postural (Orthostatic) Hypotension)

- Give time in standing, walk on spot before mobilising. Have 2-3 staff with wheelchair/to move chair behind in case service user moves forward from the chair
- Ensure the person is hydrated before standing up
- Take lying and standing BP
- Ensure staff are up to date with Moving and Handling training, which includes 'supporting a falling person to the floor' and 'assisting a person to get up from the floor'

Causes of Syncope - Causes of Syncope - Syncope

Transient loss of consciousness (TLoC, fainting, blackout, syncope) is caused by a temporary reduction in blood flow to the brain. Blood flow to the brain can be interrupted for a number of reasons. Different causes are listed below.

TRIGGERS THAT CAN CAUSE SYNCOPE

- Transient loss of consciousness is most commonly caused by a temporary glitch in the autonomic nervous system. This is sometimes known as autonomic (neurally) mediated syncope. The autonomic nervous system is made up of the brain, nerves and spinal cord. It regulates automatic bodily functions, such as

heart rate and blood pressure.

- An external trigger can temporarily cause the autonomic nervous system to stop working properly, resulting in a fall in blood pressure and transient loss of consciousness. The trigger may cause your heartbeat to slow down or pause for a few seconds, resulting in a temporary interruption to the brain's blood supply. This is called benign vasovagal syncope, or fainting.
- The trigger can be anything from sudden severe pain, to fear, needles or sight of blood.
- LOW BLOOD PRESSURE WHEN YOU STAND UP
- Light-headedness, or fainting, can also be caused by a fall in blood pressure when you stand up. This is called **postural, or orthostatic, hypotension**, and tends to affect older people, particularly those aged over 65. It's a common cause of falls in older people.
- When you stand up after sitting or lying down, gravity pulls about 750ml of blood down into your legs, which reduces your blood pressure. The nervous system usually counteracts this by making your heartbeat faster and narrowing your blood vessels. This stabilises your blood pressure.
- However, in cases of orthostatic hypotension this doesn't happen, leading to the brain's blood supply being interrupted and causing you to feel lightheaded, or even faint.

Possible triggers of orthostatic hypotension include:

- dehydration – if you're dehydrated, the amount of fluid in your blood will be reduced and your blood pressure will decrease. This makes it harder for your nervous system to stabilise your blood pressure and increases your risk of fainting.
- medication – several medications including those for high blood pressure, heart disease, and Parkinson's disease can cause orthostatic hypotension.
- neurological conditions – conditions that affect the nervous system, such as Parkinson's disease, can cause orthostatic hypotension.
- diabetes – uncontrolled diabetes makes you urinate frequently, which can lead to dehydration. High blood sugar levels can also damage the nerves that help regulate blood pressure

HEART PROBLEMS

Heart problems can also interrupt the brain's blood supply and cause loss of consciousness. This type of fainting is called cardiac syncope. The risk of developing cardiac syncope increases with age. You're also at increased risk if you have:

- narrowed or blocked blood vessels to the heart (coronary heart disease)
- chest pain (angina)
- had a heart attack in the past
- weakened heart chambers (ventricular dysfunction – heart failure)
- structural problems with the muscles of the heart (cardiomyopathy)
- an abnormal electrocardiogram (ECG) – a test that checks for abnormal heart rhythms
- repeated loss of consciousness that come on suddenly without warning

12. Continence problems

Rushing to the toilet or attempting to remove clothing before reaching the toilet may cause falls. Additionally, urinary accidents can cause slip hazards and anxiety, which can further increase falls.

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- Practice mobility often
- Ensure call bells are within reach and that they work.
- Check that the individual has used the toilet if needed before mobility practice.
- Ensure lighting is in place at night.
- Ensure trip hazards are minimised where possible, especially at night.
- Refer to specialist

13. Osteoporosis (increases fracture risk)

Osteoporosis is a disease characterized by low bone mass and structural deterioration of bone tissue, with a consequent increase in bone fragility and susceptibility to fracture. Osteoporosis itself is asymptomatic and often remains undiagnosed until a fragility fracture occurs.
An osteoporotic fracture is a fragility fracture occurring as a consequence of osteoporosis. Characteristically, fractures occur in the wrist, spine, and hip, but they can also occur in the arm, pelvis, ribs, and other bones.
A fragility fracture is defined as a fracture following a fall from standing height or less, although vertebral fractures may occur spontaneously, or as a result of routine activities such as bending or lifting (2017a; NOGG, 2019; BMJ Best Practice, 2020).

- Check history
- Refer for bone density assessment (bone scan) if needed.
- Consider exercise. The Royal Osteoporosis Society have guidance (and a flowchart) on the amount and type of exercise needed to promote bone strength, the importance of including exercise to reduce falls and resulting fractures ros-strong-steady-straight-quick-guide-february-2019.pdf (theros.org.uk):
    a. Physical activity and exercise has an important role in the management of osteoporosis – promoting bone strength, reducing falls risk and managing symptoms:
    b. People with osteoporosis should be encouraged to do more rather than less. Adopt a positive and encouraging approach – 'how to' rather than 'don't do'.
    c. Physical activity and exercise is not associated with significant harm including vertebral fracture – though some caution is advised, the benefits of physical activity and exercise outweigh the risks
    d. People with painful vertebral fractures need clear and prompt guidance on how to adapt movements involved in day-to-day living, and exercises for posture and pain.
    e. SAFETY – Adopt a positive encouraging approach – explain that fractures are rarely caused by exercise and the benefits outweigh the risks.

        With osteoporosis:
        - Recommend correct techniques when using weights or resistance bands, gym equipment – get specialist advice if unsure.
        - Recommend modification of exercises that involve end range sustained repeated forward bending unless you are using the 'hip hinge'/are very experienced/have very good muscle tone and control.
        - Always increase intensity gradually and tailor according to individual fitness and ability. With vertebral or multiple low trauma fractures

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- Recommend lower impact rather than moderate impact exercise (jogging, low level jumping) as a general rule. May be appropriate to increase after individualised discussion.

With poor balance:

- Recommend improving balance and muscle strength before increasing physical activity levels.

- Ensure Calcium/Vitamin D is prescribed, where appropriate. There is evidence that vitamin D deficiency and insufficiency are common among older people and that, when present, they impair muscle strength and possibly neuromuscular function, via CNS-mediated pathways. In addition, the use of combined calcium and vitamin D3 supplementation has been found to reduce fracture rates in older people in residential/nursing homes and sheltered accommodation. Although there is emerging evidence that correction of vitamin D deficiency or insufficiency may reduce the propensity for falling, there is uncertainty about the relative contribution to fracture reduction via this mechanism (as opposed to bone mass) and about the dose and route of administration required. No firm recommendation can therefore currently be made on its use for this indication. [NICE 2004, amended 2013]
- Use HCPA resources: StopFalls app, HCPA's 'Sit Less, Move More', 'StopFalls', and 'An Enabling Care Approach' brochures Resource Library (hcpastopfalls.info) to encourage people at risk of falls to undertake the recommended levels of physical activity safely, to establish practical ways to include people in extended care settings in movement and exercise programmes

14. Pressure sores

Whilst it does not appear to be widely documented that pressure sores directly increase the risk of falling, factors such as pain, avoidance of weightbearing on a foot which has a pressure sore and fear of falling may be added risks for falling. Also, many of the risk factors for developing pressure sores are risk factors for falls. These are:

- being over 70 – older people are more likely to have mobility problems and skin that's more easily damaged through dehydration and other factors
- being confined to bed with illness or after surgery
- inability to move some or all of the body (paralysis)
- obesity
- urinary incontinence and bowel incontinence
- a poor diet
- medical conditions that affect blood supply, make skin more fragile or cause movement problems – such as diabetes, peripheral arterial disease, kidney failure, heart failure, multiple sclerosis (MS) and Parkinson's disease

- Carry out and document an assessment of pressure ulcer risk for individuals if they have a risk factor, for example:
  - significantly limited mobility (for example, people with a spinal cord injury)
  - significant loss of sensation
  - a previous or current pressure ulcer
  - nutritional deficiency
  - the inability to reposition themselves

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- significant cognitive impairment

- Use a validated scale to support clinical judgement (for example, the Braden scale Home | Braden Scale, the Waterlow score What is the Waterlow Score and how can it help assess risk of pressure injuries? - CareDocs or the Norton risk-assessment scale Norton Score For Pressure Ulcer Risk Calculator (mdapp.co)) when assessing pressure ulcer risk.
- Reassess pressure ulcer risk if there is a change in clinical status (for example, after surgery, on worsening of an underlying condition or with a change in mobility)
- Ensure the individual is checked for pressure areas that may cause unsteadiness in steadiness (e.g. on the feet) or pain, which may also increase risk of falling.
- Use RESTORE2 and NEWS2 RESTORE2™ official (westhampshireccg.nhs.uk) to assess for infection and refer to the GP/Tissue Viability Nurse (TVN)/Emergency services/Prevention of Admission services as appropriate
- Ensure bodymap and care plan is updated

For more information visit:
Pressure ulcers (pressure sores) - Treatment - NHS (www.nhs.uk)

15. Medication - Polypharmacy, or the use of psychoactive drugs (such as benzodiazepines) or drugs that can cause postural hypotension (such as anti-hypertensive drugs, Parkinson's medication etc)

- Check individual's medications against HCPA Medication resource for side effects. See HCPA's StopFalls brochure, page 11-12 Resource Library (hcpastopfalls.info)
- Consider especially any new medications
- Refer for medication review with modification or withdrawal– GP, Community Mental Health Team (CMHT)

MOBILITY AND FUNCTION

16. Balance problems

Older people reporting a fall or considered at risk of falling should be observed for balance and gait deficits and considered for their ability to benefit from interventions to improve strength and balance.

Strength and balance training is recommended. Those most likely to benefit are older people living in the community with a history of recurrent falls and/or balance and gait deficit. A muscle strengthening and balance programme should be offered. This should be individually prescribed and monitored by an appropriately trained professional

- Check mobility aid is safe and within reach
- Refer to Physiotherapy for mobility aid or if current one appears unsuitable (see also Risk Number 30 - Mobility aids)
- Screen for balance disorders for example by One Leg Stand test Single Leg Stance Test - Physiopedia (physio-pedia.com)


15.BERG balance form v2 23.1.24.pdf

- Use the BERG Balance Scale, if appropriate, to assess balance.
- Refer to Physiotherapy/Community Falls team for assessment as appropriate.

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- Practise 1:1 strength and balance exercises – with appropriate risk assessment in place - Use HCPA resources: StopFalls app, HCPA's 'Sit Less, Move More', 'StopFalls', and 'An Enabling Care Approach' brochures Resource Library (hcpastopfalls.info) to encourage people at risk of falls to undertake the recommended levels of physical activity safely, to establish practical ways to include people in extended care settings in movement and exercise programmes
- For detailed guidance on the amount and type of physical activity people should be doing to improve their health from the Chief Medical Officer (2019), see Physical activity guidelines: UK Chief Medical Officers' report - GOV.UK (www.gov.uk)
- Check staff have attended HCPA's training courses for Enabling Care (including Enabling Care Champion), Chair-Based Exercise Instructor and Strength and Balance in Care Instructor.

17. Gait

- Screen for mobility problems using a structured approach for example by Short Physical Performance Battery (SPPB), Short Physical Performance Battery - Physiopedia (physio-pedia.com) Timed Up and Go (TUG) Timed Up and Go (TUG) Test: Uses, Procedure, Results (verywellhealth.com) plus, qualitative assessment (what the person is experiencing)

14.TUG test form v2 23.1.24.pdf

- If indicated, consider referral to Physiotherapist.

18. Muscle strength

- Seek advice from Physiotherapist or Occupational Therapist on strength testing in sitting if person is unable to straighten and bend lower limbs, or unable to use hands to grip to use a rollator frame.
- Refer to HCPA resources: Stopfalls, 'Sit Less-Move More' for 1:1 strength and balance exercises.
- Check staff have attended HCPA's training courses for Enabling Care (including Enabling Care Champion), Chair-Based Exercise Instructor and Strength and Balance in Care Instructor.

19. Foot Problems - pain (e.g., from bunions, ingrowing toenails), deformity, stiffness, loss of sensation in one or both feet

- Refer to Podiatrist.
- Check footwear is comfortable and appropriate.
- Refer to GP for pain relief
- Ensure vigilance and that good verbal cues are given E.g., for numbness in feet
- Speak to GP if the person has painful, swollen or 'tingly' feet
- Refer to specialist if new onset

20. ADLs/Functional ability

- Assess Activities of Daily Living (ADLs) using e.g. the Barthel Index (for ADLs, and also suitable for care home residents) Microsoft Word - Barthel ADL Index.doc (bgs.org.uk)

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- and Instrumental Activities of Daily Living (IADLs) Lawton –Brody Instrumental Activities of Daily Living Scale (IADL) (alz.org) in a structured manner, preferably by modified Katz (community dwellers) or NEADL Microsoft Word - EADL 3.doc (nottingham.ac.uk) and scoring sheet neadl-notes.pdf (nottingham.ac.uk)

The six essential ADLs, which are:

- Dressing
- Eating
- Ambulating
- Toileting
- Hygiene
- Continence

These ADLs represent the basic activities that people must be able to accomplish to live independently.

Instrumental Activities of Daily Living (IADLS) refer to activities that support daily life and are oriented toward interacting with your environment. IADLs are typically more complex than ADLs, which often must be combined to complete one IADL. For example, while eating is an ADL, the ability to plan and prepare meals, shop accordingly, and eat a healthy diet is an IADL. To clean and maintain a home, a senior must be able to walk on their own (What Are IADLs or the Instrumental Activities of Daily Living? | AssistedLiving.org)
They are important components of home and community life but can be easily delegated to another person (www.verywellhealth.com).

- Care of others
- Care of pets
- Child rearing
- Communication management
- Driving and community mobility

- Financial management
- Health management and maintenance
- Home establishment and management
- Meal preparation and clean up
- Religious and spiritual activities and expressions
- Safety procedure and emergency responses
- Shopping

There is also an extension to the extension. The Occupational Therapy Practice Framework also refers to the below areas of activity, which are sometimes included

in ADL and IADLs lists.

- Rest and sleep
- Education
- Work
- Play
- Leisure
- Social participation

ADLs vs. IADLs

ADLs are the basic things you need to do to survive and be well. IADLs are the things you can do to enhance your personal interactions and/or environment.

21. Weakness - new onset or recent deterioration

- Seek advice from Physiotherapist or Occupational Therapist on strength testing in sitting if unable to straighten and bend lower limbs or unable to use hands to grip to use a rollator frame.
- Refer to GP/Emergency services/Prevention of Admission services/Physiotherapist as appropriate especially if sudden onset

22. Fatigue – new onset or recent deterioration

- Check whether the person is sleeping well
- Check any new medications for side effects
- Check for acute illness
- Check for anxiety and depression.
- Refer to GP if indicated

SENSORY FUNCTION

23. Visual impairment

- Ask the person/family/friend about their vision if any problems are noticed.
- Check glasses correct, on, and clean
- Refer to optician for vision assessment as indicated

There is no evidence that referral for correction of vision as a single intervention for older people living in the community is effective in reducing the number of people falling. However, vision assessment and referral has been a component of successful multifactorial falls prevention programmes

24. Hearing impairment

- Ask the person/family/friend about their hearing if any problems are noticed.
- Check hearing aid clean, in and working.

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- Demonstrate ahead of tasks and ensure understanding prior to undertaking tasks which may involve a risk of falling
- Check staff have attended a training course for people with a hearing impairment where needed

OTHER HEALTH RISK FACTORS

25. Nutrition and Hydration

Malnutrition impacts on every system of the body. It reduces the ability to fight infections, increasing the risk of pneumonia and septicaemia. Muscle density reduces, decreasing mobility and increasing the risk of falls.

- Check and update weight.
- Screen for malnutrition and the risk of malnutrition both in hospital and the community forms part of NICE guideline [CG32] on nutrition support. The malnutrition universal screening tool MUST Malnutrition Universal Screening Tool (bapen.org.uk) is the most commonly used in UK and is referred to in the NICE guidance on nutrition support.
- We recommend nutritional optimisation including food rich in calcium and proteins, as well as vitamin D supplementation as part of a multidomain intervention for falls prevention in care home residents. (World guidelines for falls prevention and management for older adults: a global initiative, and, Montero-Odasso, M *et al,* 2022). *Age and Ageing*, Volume 51, Issue 9, September 2022, afac205, https://doi.org/10.1093/ageing/afac205)
- Check that there is nutritional optimisation for bone health, including food rich in calcium and proteins, as well as vitamin D supplementation, as part of a multidomain intervention for falls prevention in care home residents.
- Check and monitor fluid intake, and check that the person is taking adequate fluids.
- Also check the person managing to swallow. Remember repeated chest infections may indicate the person is aspirating when they swallow.
- Refer to the Dietician/SALT/GP/Emergency services/Prevention of Admission services as appropriate.

Additional resources:

- Helping older people maintain a healthy diet: A review of what works - GOV.UK (www.gov.uk)
  Falls Fact SheetIntegrating nutrition into falls pathways A HEALTHCARE PROFESSIONAL FACT SHEET (malnutritionpathway.co.uk)

26. Alcohol/recreational drugs misuse

- Is the individual free from the influence of alcohol/other recreational drugs that may put them at risk of falling?
- Consider Mental Capacity (MCA) and Deprivation of Liberty Safeguards (DoLS) if appropriate
- Mental Capacity (Amendment) Act 2019: Deprivation of liberty safeguards: resources - GOV.UK (www.gov.uk)
- Deprivation of Liberty Safeguards (DoLS) at a glance | SCIE
  Other helpful resources:
- Alcohol-related brain damage legal issues - using the Mental Capacity Act | Alcohol Change UK
- Mental-Capacity-Report-July-2020-HWDOL.pdf (mentalcapacitylawandpolicy.org.uk)
- Alcohol and capacity (localgovernmentlawyer.co.uk)
- More awareness around alcohol and self-neglect needed, study argues (communitycare.co.uk)

This information is taken from the World Guidelines for Falls Prevention and Management for Older Adults: A global Initiative (2022), as well as from the NICE CG161 2013, the National Audit of Inpatient Falls (NAIF) and Public Health England Guidance - Falls: applying All Our Health (Updated 31 January 2020) and is intended to accompany the Falls Multifactorial Risk Assessment document.

Extrinsic Factors
27. Footwear that is unsuitable or missing • Check shoes/slippers for safety and suitability. • Check for 'slipper swaps' at the local library/other community settings. • Check who is responsible for purchasing new ones and ensure this is followed up immediately. • Refer to GP if the person has painful, swollen or 'tingly' feet.
28. Home hazards - such as loose rugs or mats, uneven flooring, pets, furniture, obstacles, litter and other trip hazards, steps/stairs, poor lighting, wet surfaces (especially in the bathroom), poor heating, and loose fittings (such as handrails), or a lack of other appropriate adaptations • Hazard assessment and intervention: ○ Check the area is free of obstacles/trip hazards, the floor is free of spillages and all fixtures are safe ○ Ensure night lighting is adequate ○ Ensure all rugs have non-slip underlay and replace frayed carpets ○ Ensure handrails are easily accessible and easily located ○ Ensure stairs and steps have appropriate handrails ○ Nonslip mats in bathroom and shower ○ Two-way switches (maybe glow-in-the-dark) in the bedroom and hallways so residents do not walk in the dark ○ Ensure night lighting is adequate (consider glow-in-the-dark footsteps, night lights) ○ Check heating is working properly and rectify as able. Refer to Social Worker, for Care at Home clients, if there are any concerns. ○ Request a **Home Hazard Assessment** (local OT service, local council or fire and rescue can help) if appropriate
29. Outdoor hazards - such as icy walkways, above average heat, curbs, uneven pavements • Complete a full risk assessment, document ALL risks, and ensure risks are minimised wherever possible. • If, as a last resort, measures are considered such as not allowing a person who lacks capacity to decide this, to go out (or indeed any measure that may restrict a person's movement), this MUST be accompanied by a separate risk assessment and a DoLS (Deprivation of Liberty Safeguard) Deprivation of liberty safeguards: resources - GOV.UK (www.gov.uk) MUST be applied for.
30. Mobility aids • Check mobility aid is safe and within reach. • Refer to Physiotherapy for mobility aid or if current one is broken or appears unsuitable or unsafe. • In the rare case that a person who lacks capacity to make decisions, mobilises, but cannot do so without falling and potentially causing themselves significant harm, measures such as removing a person's frame, (or indeed *any* measure that may restrict a person's mobility), may be considered as a *Least Restrictive Option that is proportionate to the harm prevented.* Any such decision **MUST** be accompanied by a separate risk assessment and a DoLS (Deprivation of Liberty Safeguard) **MUST** be also applied for.

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31. Clothing

- Check that clothes are not too loose, long or trailing on the floor. Belts and cords may need to be tightened to avoid tripping.

- If the individual has lost weight, this can be evident in their clothes, and this should also trigger a frailty assessment (PRISMA7) and a screen for malnutrition.

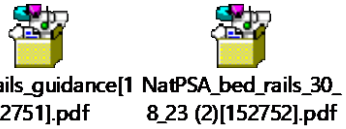
32. Pendant alarm/call bell

- Check this is within reach and that the person can use it

33. Sensor mats

- Ensure these are in place if appropriate for the individual and that they are working, and effective
- Ensure sensor mat itself is not causing further risk by being a trip hazard or an obstacle
- Consider the potential roles for e-health including wearables, virtual reality applications and other environmental monitoring devices

34. Bedrails and bed height



- Ensure bedrails are only used in line with latest guidance and local policy
- Ensure bed height is in line with latest guidance and local policy and that low profiling beds are used wherever possible
- Ensure the correct measures are in place regarding Mental Capacity and Consent/Best Interests and Deprivation of Liberty Safeguards

35. Positioning in chair

- Check there is a one-way glide sheet in place if needed to prevent slipping from the chair
- Check the individual's pelvis is positioned evenly and to the back of the chair
- Reposition and check for pressure areas regularly if the individual is unable to move themselves
- Refer to HCPA's "Bums on Seats!" webinar "Bums on Seats!" - Are you DISABLING your clients by sitting them in a 'one size fits all' chair? - YouTube
- Use HCPA's 'An Enabling Care Approach' brochure Resource Library (hcpastopfalls.info)
- Check staff have attended HCPA's training courses for Enabling Care (including Enabling Care Champion), Chair-Based Exercise Instructor and Strength and Balance in Care Instructor.

General Considerations

36. Is the person mobilising for the first time after an episode of acute illness, for example after being discharged form hospital?

- If the individual has not been weightbearing for 6 weeks or more, check with GP that it is safe for the person to attempt mobilising.

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- If the person has not been weightbearing for 12 weeks, refer for assessment of bone density due to the increased risk of fractures.
- Think 'Safety': Minimise risk
- Practise Sit to Stand first, before mobilising.
- **Use HCPA's ' Back on Feet Risk Assessment to ensure you do this safely** (Ensure staff and equipment in correct position, ensure there is a wheelchair and walking aid plus 3 staff, 1 either side and 1 for wheelchair behind).

Back on Feet Risk Assessment.v3 16.01.2

- Refer to Physiotherapy if needed

37. Is NOW the best time of day for the individual?

- If the individual's ability to mobilise fluctuates throughout the day, pick a time when they are likely to be at their best
- If there are times of the day where there are likely to be more distractions/obstacles, pick a time when these are minimised
- Ensure any patterns in the person's ability are documented and handed over to other staff

38. Sedentary behaviour

Bed-Care-Prevention-Guide-2021 (2)79265.

- Use the Bed Prevention tool to ensure every effort is made to reduce the risk of an individual being in bed.
- Practise sit to stand regularly
- Encourage independence, mobility and exercise, as well as involvement in everyday ADLs and IADLs – see Risk number 20.
- Seek advice from Physiotherapist or Occupational Therapist if person is unable to straighten and bend lower limbs, or is unable to use hands to grip to use a rollator frame
- Practise 1:1 strength and balance exercises – with appropriate risk assessment in place – refer to HCPA resources: StopFalls app, 'Sit Less-Move More' – for 1:1 strength and balance exercises.
- Use HCPA's 'Sit Less, Move More', 'StopFalls', and 'Enabling Care' brochures Resource Library (hcpastopfalls.info) to encourage people at risk of falls to undertake the recommended levels of physical activity safely, to establish practical ways to include people in extended care settings in movement and exercise programmes
- For detailed guidance on the amount and type of physical activity people should be doing to improve their health from the Chief Medical Officer (2019), see Physical activity guidelines: UK Chief Medical Officers' report - GOV.UK (www.gov.uk)
- Check staff have attended HCPA's training courses for Enabling Care (including Enabling Care Champion), Chair-Based Exercise Instructor and Strength and Balance in Care Instructor.

Specific Considerations for individuals on a NON-WEIGHTBEARING PATHWAY

39. Are there signs that the individual feels unwell?

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- Check for infection – Use RESTORE2 and NEWS2 RESTORE2™ official (westhampshireccg.nhs.uk) and take appropriate action according to NEWS2 and HERTS escalation pathway

40. Are there signs of local/systemic infection?

- Check wound for exudate, swelling, unpleasant odour
- Check limb for discolouration
- Check for infection – Use RESTORE2 and NEWS2 RESTORE2™ official (westhampshireccg.nhs.uk) and take appropriate action according to NEWS2 and HERTS escalation pathway
- Refer back to the Intermediate Care Team or other referring team, or to the GP/Tissue Viability Nurse (TVN)/Emergency services/Prevention of Admission services as appropriate

41. Is there bleeding from the wound?

- Refer back to the Intermediate Care Team or other referring team, or to the GP/Tissue Viability Nurse (TVN)/Emergency services/Prevention of Admission services as appropriate

42. Are there signs that the individual is in pain?

43. Are there signs of a DVT/fat embolism?

- What is a fat embolism?
- A fat embolism (FE) is a piece of intravascular fat that lodges within a blood vessel and causes a blockage of blood flow. Fat emboli commonly occur after fractures to the long bones of the lower body, particularly the femur (thighbone), tibia (shinbone), and pelvis.
- While fat emboli are common and generally resolve on their own, they can lead to a serious condition called fat embolism syndrome (FES). FES can cause inflammation, multi-organ dysfunction, and neurological changes that can be deadly.
- According to research, FES can be seen in 3 to 4 percent of those with one long-bone fracture and up to 15 percent of those with multiple long-bone traumas.
- Symptoms of fat embolism syndrome
- Signs of FES generally appear 12 to 72 hours Trusted Source after trauma. Symptoms tend to occur throughout the body and include:
  - rapid breathing
  - shortness of breath
  - mental confusion
  - lethargy
  - coma
  - pinpoint rash (called a petechial rash), often found on the chest, head, and neck area, which occurs due to bleeding under the skin
  - fever
  - anaemia

Fat Embolism Syndrome: Symptoms, Causes, and Treatment (healthline.com)
Embolism NHS - NHS (www.nhs.uk)

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Following a fall, please refer to the Hertfordshire Post Falls Pathway [StopFalls (hcpastopfalls.info)]

Click on: Intervening a fall and scroll down.

This includes the Falls Severity Incident Report form – see Appendix 1

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Appendix 1 - Falls Severity Incident Report

Name of individual:	
DOB:	
Address: *(home, care home etc)*	
Place fall occurred: *(in the bathroom, in hospital ward, outside a shop etc)*	
Date and time fall took place:	
Name of witness:	
Name of person reporting (if different from witness):	

Details of the fall:
Reason for fall: (if known) **Internal factors:** (such as: medication, poor balance, vision, hearing other health related issue etc.) **External factors:** (such as: footwear, mobility aid, obstacles, lighting etc.)
Previous history of falls (including last fall and any pattern observed)

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SEVERITY OF FALL

This falls severity grading scale is referenced in the NICE clinical guideline 161 - Falls: Assessment and prevention of falls in older people (June 2013).

The definitions of harm are published in 'Seven steps to patient safety' (NHS National Patient Safety Agency, 2004) and are used by the NHS National Learning and Reporting System and the National Audit of Inpatient Falls

Please note: The level of harm is indicated by the Classification Code
The addition of a 'U' after the Classification Code means that the fall was Unwitnessed

CLASSIFICATION CODE	Witnessed (Tick)	Unwitnessed (Tick)
A. NO HARM – A safety incident that had the potential to cause harm but was prevented, resulting in no harm to the individual *OR* A safety incident that occurred but where no harm was caused. This includes individuals whose neurological observations were monitored and recorded, but who sustained no injury	**A**	**AU**
B. LOW HARM – A safety incident that required extra observation or minor treatment and caused minimal harm (minor treatment includes first aid, additional therapy or additional medication)	**B**	**BU**
C. MODERATE HARM – A safety incident that resulted in a moderate increase in treatment and which caused significant but not permanent harm (for example a return to surgery, an unplanned re-admission, a prolonged episode of care, extra time in hospital or as an outpatient, cancelling of treatment or transfer to another area such as intensive care because of the incident). Moderate harm also means prolonged pain or prolonged psychological harm which the service user is likely to experience for a continuous period of at least 28 days	**C**	**CU**
D. SEVERE HARM – A safety incident that appears to have resulted in permanent harm to one or more individuals receiving care, where the permanent harm directly relates to the incident and not the natural course of the individual's illness or underlying condition. Permanent harm refers to a permanent lessening of bodily, sensory, motor, physiologic or intellectual functions. This includes falls resulting in fractured neck of femur (hip) fracture	**D**	**DU**
E. DEATH – Any safety incident that directly results in the death of one or more people receiving care. The death must relate to the incident rather than to the natural course of the individual's illness or underlying condition	**E**	**EU**

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