Norfolk and Norwich University Hospitals NHS Foundation Trust

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Joint Trust Guideline for the Medical Evaluation of Patients Presenting with Falls

Also see Falls Management Guideline Trustdocs Id: 1083

A clinical guideline recommended

For use in:	A+E, AMU, Medical and Surgical wards
By:	Clinicians
For:	Adult patients presenting with falls
Divisions responsible for document:	Medical and Surgical
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If Yes - does the strategy/policy deviate from the recommendations of NICE? If so why?	No deviation

Version and Document Control:

Version Number	Date of Update	Change Description	Authors
5	21/02/2022	Thoroughly reviewed and amended to current practice.	Dr Duduzile Musa. Dr Susan Lee, Nikki Walker
5.1	13/05/2022	Added James Paget Logo as this is now a Joint Guideline	Dr Duduzile Musa. Dr Susan Lee, Nikki Walker

This is a Controlled Document

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Objective/s

To improve the diagnosis and management of falls.

Rationale

These guidelines were written based on the references documented below.
The associated falls bundle is to improve guideline adherence and documentation.

Assessing the patient with falls

According to NICE guideline recommendations, all people 65 or older who are admitted to hospital should be considered for a multifactorial assessment for their risk of falling during their hospital stay. They should also be offered a multifactorial assessment of their community-based falls risk, if appropriate. These assessments may be done together or separately. People aged 50 to 64 who are admitted to hospital and are judged by a clinician to be at higher risk of falling because of an underlying condition are also covered by the guideline recommendations about assessing and preventing falls in older people during a hospital stay.

A large proportion of our patients present with a fall or have a history of falls. Here is some guidance about how to assess someone with falls. A summary sheet can be seen at the end of the document and there is a bundle to ensure all elements of the falls assessment have been covered.

Is there an acute precipitant?

From clinical examination there may be an acute precipitant i.e. the patient has pneumonia, a myocardial infarction, a stroke, a gastrointestinal bleed etc. Sometimes this is a presentation of an occult catastrophe including dissection, PE, ruptured Abdominal aortic aneurysm or subarachnoid bleed. Do not ignore associated pain or breathlessness.

Generally these patients need to be admitted for treatment of the cause Something which may need to be considered is that with an ageing population, the impact of acute precipitants often negatively impacts subsequent motor and cognitive influencers to falls

risk such as deconditioning, weakness and delirium. For example, whilst a MI may be the primary cause for the ‘collapse’, in a frail 70 year old, with multiple comorbidities, we often observe an acute decline in strength, function and cognition, precipitated by the acute illness and exacerbated by hospital admission. This in turn negatively influences falls risk – and thus is where we can see a risk of re-admissions

Is this syncope?

This needs to be answered.

Red flags for syncope – the patient does not remember hitting the floor or the patient has no recollection of the event at all. The patient has hit their face – this suggests there were no protective reflexes at all.

There are 3 types of syncope:

1) **Vasovagal** – the Ps should be assessed.
Provocation/prodrome/postural/precipitous.

2) **Vascular** – this is where there is a postural drop, is usually of 20/10mmHg to be significant and is usually associated with symptoms. The Blood pressure (BP) should be measured after lying flat for at least 10 minutes then rising to standing and measuring the BP at 1min after standing and 3 minutes after standing.

When there is a postural drop, the patient's medication should be reviewed and conditions which cause postural hypotension should be considered e.g. diabetes, Parkinsons, Addisons etc.

3) **Cardiogenic** – This can be broadly separated into arrhythmias (both slow and fast) and obstructive valvular conditions such as aortic stenosis and Hypertrophic obstructive cardiomyopathy. A normal ECG makes an arrhythmia unlikely. If the resting 12 lead ECG is normal then a 24 hour tape should NOT be ordered as the pick up rate is too low. The ECG needs to be examined carefully, particularly for the rhythm, but attention must also be given to look for less common forbearers of cardiac arrhythmias such as pre-excitation, long QT, Epsilon waves and Brugada syndrome.

Please examine ECGs done close to the collapse such as the paramedic ECGs as these often have vital information on them. Those in heart failure with syncope are much more likely to have had a malignant arrhythmia. Those with pacemakers in situ should have them checked. Syncope during exercise is worrying and patients should be carefully evaluated and probably admitted.

The European Society of Cardiologists suggests admission for diagnosis in those with:

- Suspected or known heart disease.
- ECG suggests arrhythmia.
- Syncope during exercise.
- Syncope causing injury.
- Strong family history of sudden death.

Is this a multifactorial frailty fall?

This is very common in the elderly patient but can occur in patients of any age, especially those presenting with frailty syndromes or those with multiple comorbidities. Here there are multiple factors that culminate in the falling of a patient such as pain, mobility dysfunction, progressive decline in cognition/delirium, impaired vision, continence challenges and environmental factors. Multiple small interventions can help to manage the risk associated with the patient falling in the future. This where the opportunity to perform individualised multifactorial assessment and intervention can be useful. Elderly patients have often fallen before so it is important to get a full falls history.

Physiotherapists often have a supportive and diagnostic role to assessing and managing falls risk. As experts in movement analysis and function, they are well placed to complement the medical team in their consideration of influencers to falls risk. This includes a range of factors such as considering the impact of acute illness /the presenting

condition on function, balance, strength, neurology, musculoskeletal pathology, pain, exercise tolerance and cognition – as well as ongoing falls risk. Following diagnosis, Physiotherapists have a toolbox of strategies to support treating and managing falls and falls risk which may include things such as strength and balance training, exercise therapy, muscle retraining, gait re-education, equipment provision, psycho-social interventions and pacing.

Occupational therapists are experts in how the environment impact on falls risk. They analyse the activities the person wants or needs to perform in their daily routines, with information about the environment, along with the patient's perspective of their falls risk, to develop an action plan. This may be advice and prescription on equipment to make activities safer; it may be strategies to improve daily task performance and confidence; it may be referrals to other statutory or non-statutory support services. Referrals are accepted via ICE to the in-patient service for new falls, recurrent fallers or where there has been a fall with injury, where there is also a change in function and the environment is felt to be a causative factor. Where it is safe to discharge a patient without in-patient occupational therapy, a ward led discharge can be completed with a referral for occupational therapy requested on the Transfer of Care form, specifying the particular need.

Management of the patient with falls:

Following treatment for an injurious fall, older people should be offered a multidisciplinary assessment to identify and address future risk and individualised intervention aimed at promoting independence and improving physical and psychological function (NICE, 2014)

Acute precipitant falls – the precipitant should be treated. This can be done either as an inpatient under the relevant specialty or as an outpatient. If the outpatient pathway is selected then they should be risk assessed for future falls.

Vasovagal syncope falls – can normally be discharged. Please ensure that you are certain of this diagnosis and that other causes of falls have been considered. Consult senior doctor if necessary. Risk assess them for osteoporosis.

Cardiogenic or vascular falls – admit to either cardiology or OPM depending on whether the diagnosis is clearly cardiogenic or not.

Seizures – these are a rare but important cause of falls and it is important to look for stigmata of seizures including: post collapse confusion, unconsciousness for more than 5 mins, tongue biting, incontinence and prolonged shaking

Multifactorial falls – In these patients a proper falls history should be taken and the falls bundle should be completed. Depending on falls risk assessment, social circumstances and the frailty of the patient the patient may need inpatient Physiotherapy and Occupational therapy assessment. If the patient remains under the care of ED, the CAT (community access team) can support this review. Some patients may require follow up in OPAS (Older Patients Assessment Clinic). These teams and services will integrate awareness of factors such as balance, mobility, muscle weakness, visual impairment, cognitive impairment, neurology, continence, consideration of home hazards/environment and perceived functional ability or fear relating to falling - supporting both inpatient care as well as transition to community services.

Medication reviews: There can be broad and potentially modifiable challenges between medications and falls risk – especially in older people. In addition to the more obvious relationship between postural drops antihypertensive and diuretics, consideration of broader polypharmacy (i.e. antimuscarinics/anticholinergics, antipsychotics, benzodiazepines and opioids) in the context of increasing frailty, cognitive capacity/insight, nutritional status and functional ability can be valuable.

Injurous falls - In falls which have sustained an injury then fracture needs to be excluded. Once fracture has been excluded and appropriate analgesia given then the patient can be assessed to go home. Patients who have sustained a head injury from falling should have their head injury assessed according to NICE guidance. Those who have sustained fractures should be admitted under orthopaedics with orthogeriatrics input.

Discharge to assess - When people are medically optimised and no longer require an acute hospital bed - yet still require ongoing assessment and support, discharge to assess (D2A) models of care have been developed to help ensure these assessments are undertaken in the most appropriate setting and at the right time for the patient. This model of care provides funded, short term care, assessment and re-ablement in people's homes or in another community setting (HM Government, 2021) and can be arranged by the MDT via completion of a transfer of care form (TOC) available from Trust Docs.

For D2A, patients fall into three groups: those who will be able to cope at home without help (D2A0); those who would benefit from ongoing discharge to assess at home (this may include carers and therapy assessment at home (D2A1); those who would benefit from rehabilitation, assessment, care planning or short-term intensive support in a 24-hour bed-based setting, ideally before returning home (D2A 2) and finally, people who require bed-based 24-hour care: includes people discharged to a care home for the first time (D2A 3).

Falls history:

1. Do you remember hitting the floor?
2. When did you last fall?
3. How often do you fall? How many falls in the last month/6 months/year; are your falls increasing?
4. Did you get yourself off the floor? How did you call for help?
5. Did you hurt yourself in the fall?
6. In depth social history:
   - Usual mobility and functional levels.
   - Their address and type of housing (flat, house, bungalow).
   - Carers/partner or family support in situ.
   - Do they feel they are coping at home.
   - Medication management (any compliance aids?).
   - Night-time needs.
7. Pre-fall symptoms – chest pain, SOB, Palpitations, headache, vertigo, dizziness, "fuzzy head", "legs giving way".
8. Collateral history of fall.

9. Abbreviated Mental Test Score.
10. Osteoporosis history – previous fragility fractures, FH of osteoporosis, risk factors for osteoporosis.
11. Stigmata of seizures - post collapse confusion, unconsciousness for more than 5 minutes, tongue biting, incontinence and prolonged shaking.
12. Driving History.
13. Family history of sudden death.
14. Syncope during exercise.

Cryer risk score for falls:

Is there a history of any fall in the previous year?	Yes =1	No = 0
Is the patient on 4 or more medications a day?	Yes =1	No = 0
Does the patient have the diagnosis of a stroke or Parkinson's?	Yes =1	No = 0
Does the patient report any problems with their balance?	Yes =1	No = 0
Does the patient need to use their arms to rise from a chair of knee height?	Yes =1	No = 0

A score of 3 or greater suggests they are at risk of falling.

Osteoporosis assessment:

Risk stratify for likelihood of osteoporosis using Osteoporosis Assessment Tool (OST).[1]

A score is calculated as:

OST = [weight (kg) – age (years)] divided by 5

Interpretation: OST

High Risk of osteoporosis: Score less than -3

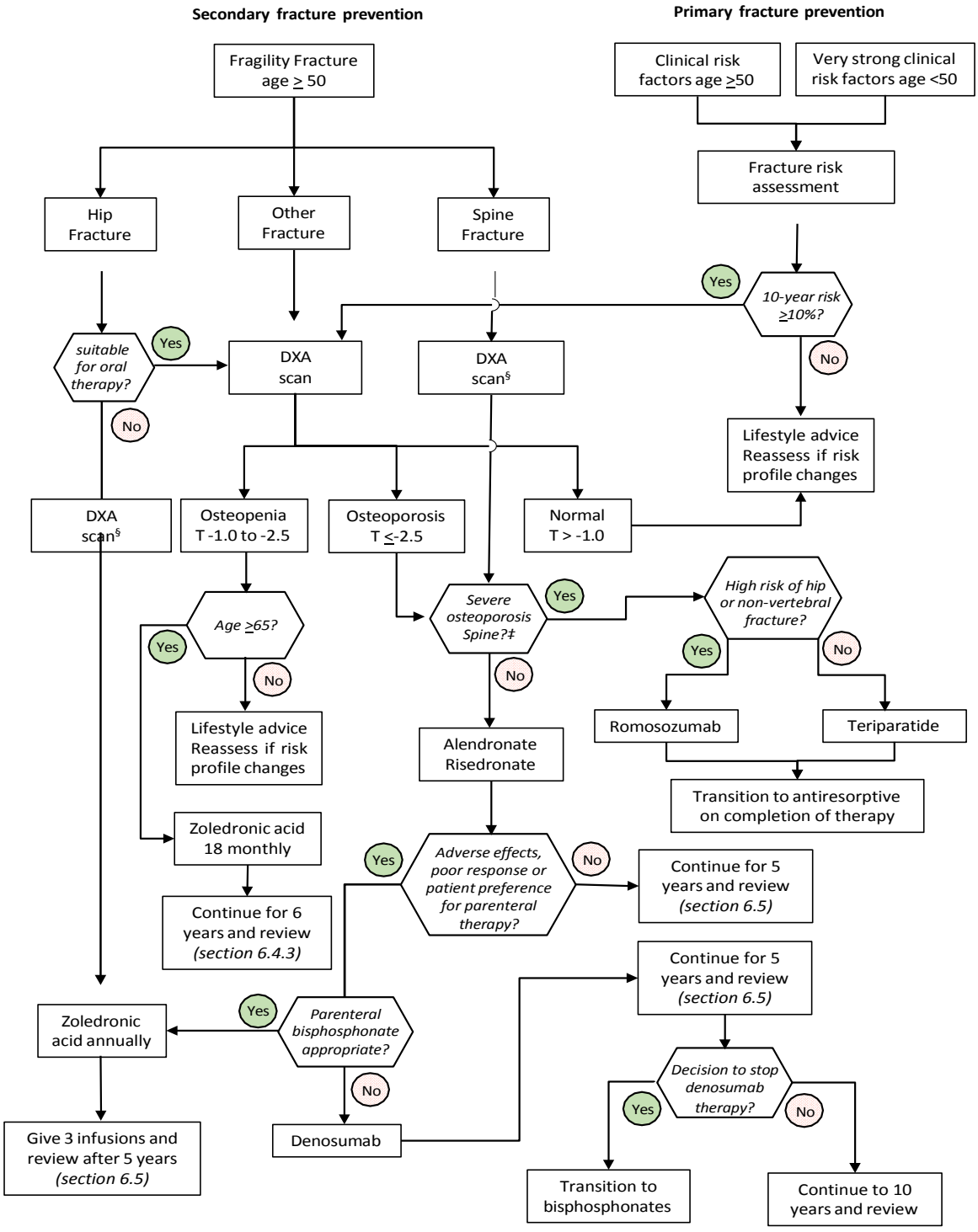
Moderate Risk of osteoporosis: Score less 1 to -3

Low Risk of osteoporosis: Score greater than 1

If at high or moderate risk or have significant risk factors for osteoporosis then collect the following data and enter into the FRAX calculator and follow the guidance as per the National Osteoporosis Guideline Group (NOGG) in conjunction with the following algorithm

[1] This tool has been primarily validated in women

Pathway from risk factors to pharmacological treatment selection postmenopausal women



§ DXA scan advisable to obtain baseline BMD but not necessary to initiate treatment; ‡ *One severe or two or more moderate vertebral fractures on x-ray, and T-score <-1.5 at any site or spine T score <-4.0*

Pharmacological treatment options for men

Tools for detection and assessment

R Risedronate may be considered for the treatment of osteoporosis in men.

R Zoledronic acid should be considered for the treatment of osteoporosis in men and the prevention of vertebral fractures.

Driving:

After a patient presents with a fall it is important to inform the patient of the driving restrictions that may apply if the diagnosis is syncope or seizure.

Please see the DVLA guidance on assessing medical fitness to drive for further information as needed.

Preventing further falls in hospital:

There is further guidance on how falls may be prevented in hospital – See trust guideline for the management of falls in adult patients.

Nursing staff should be instructed to follow the seven simple steps to prevent falls which are:

1) To offer the patient a drink.
2) To assess their toilet needs.
3) To make sure everything the patient might need is within reach.
4) To ensure the patient is wearing appropriate footwear.
5) To have their walking aid within easy reach.
6) To declutter the bed space.
7) To use safety sides where appropriate.[2]

[2] Safety sides are not appropriate for all patients and using them has its own risks. A patient who wishes to leave the bed may attempt to climb a safety side or may attempt to leave the bed between the foot/head and the side, putting themselves at greater risk. See Trust guideline http://trustdocs/ViewDocVersion.aspx?id=1084&vid=5

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FALLS BUNDLE

Name……
DOB……/……/……Male / Female
Hospital number……

ABCDE	□ Call for help to resuscitate if the patient is critically unwell
Consider sepsis	□ CXR; Urine dip <65/MSU>65; agitation/confusion
Consider Cardiac Causes	□ Any Red Flags in history □ ECG □ Murmurs
Consider Neurological Causes	□ Vacant/absence episodes □ Tongue biting/incontinence □ Witnessed tonic-clonic event □ Post fall confusion
Consider Orthostasis	□ Lying and Standing Blood Pressures at 1 minute and 3 minutes
Future Risk Assessment	□ Falls collateral history □ Future falls risk assessment done □ Cryer score performed □ Seven Simple Steps whilst inpatient
Confusion Screening	□ AMTS performed □ Delirium considered - 4AT performed?
Medication Review	□ Antihypertensives □ Sedatives/Hypnotics □ Antipsychotics
Assess mobility and function	□ Consider performing "Get up and go" test Patient asked to get up walk 5 paces turnaround and sit back down (balance, gait, use of walking aids assessed)
Osteoporosis Risk Assessment	□ OST Tool

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Clinical audit standards

The bundle system has an inherent audit system. The bundle section of this guideline should be printed on sticker paper. The section outlined in red peels off and is stuck in the case notes. The rest of the bundle sticker is collected in bundle boxes. This allows an audit trail so that the management of falls can be audited easily. The audit standards are to have completed the falls bundle, stuck it to the notes and to have performed the tasks outlined in the falls bundle.

Summary of development and consultation process undertaken before registration and dissemination

This guideline was originally written by Dr Alistair Green and Dr Susan Lee.
Amended and reviewed by Dr Duduzile Musa and Nikki Walke

This version has been endorsed by the Clinical Guidelines Assessment Panel.

Distribution list / dissemination method

Trust intranet.

References / source documents

Falls – NICE CG21 http://www.nice.org.uk/nicemedia/live/10956/29583/29583.pdf

SIGN142
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