



NICE guideline

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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the <u>Yellow Card Scheme</u>.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should <u>assess and reduce the environmental impact of implementing NICE recommendations</u> wherever possible.

Contents

Recommendations	4
1.1 Identifying people at risk of falls for further assessment	5
1.2 Comprehensive falls assessment	8
1.3 Interventions to reduce the risk of falls	10
1.4 Maximising ongoing participation in falls prevention interventions	17
1.5 Information and education for people receiving falls assessment or interventions	18
Terms used in this guideline	20
Recommendations for research	22
Key recommendations for research	22
Other recommendations for research	24
Rationale and impact	25
Falls risk prediction tools	25
Identifying people at risk of falls for further assessment	26
Comprehensive falls assessment	27
Interventions to reduce the risk of falls – community settings	28
Interventions to reduce the risk of falls – hospital inpatient settings	31
Interventions to reduce the risk of falls – residential care settings	33
Maximising ongoing participation in falls prevention interventions	34
Information and education for people receiving falls assessment or interventions	35
Context	38
Finding more information and committee details	40
Update information	41

This guideline replaces CG161.

This guideline is the basis of QS86.

Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

<u>Making decisions using NICE guidelines</u> explains how we use words to show the strength (or certainty) of our recommendations and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Healthcare professionals and social care practitioners should follow our general guidelines for people delivering care:

- Advocacy services for adults with health and social care needs
- Decision making and mental capacity
- Home care
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- People's experience in adult social care services
- Service user experience in adult mental health
- Shared decision making

These recommendations are for people who are:

- aged 65 or over or
- aged 50 to 64 with 1 or more factors that could increase their risk of falls.

1.1 Identifying people at risk of falls for further assessment

Falls risk prediction tools

1.1.1 Do not use falls risk prediction tools to predict a person's risk of falling.

For a short explanation of why the committee made this recommendation and how it might affect services, see the <u>rationale and impact section on falls risk prediction</u> tools.

Full details of the evidence and the committee's discussion are in:

- evidence review B: clinical assessments
- evidence review C: accuracy of screening tools
- evidence review D: electronic patient records
- evidence review E: methods of assessment.

Identifying the risk of falls in community settings

- 1.1.2 In <u>community settings</u>, ask people about the details of any falls. This can be done:
 - when a person presents after a fall or
 - by opportunistically asking people (for example, in routine appointments and annual health checks) whether they have fallen in the last year.

- 1.1.3 Offer a <u>comprehensive falls assessment</u> and <u>comprehensive falls management</u> to people who have fallen in the last year and meet **any** of the following criteria (this can be carried out in the same service or involve an appropriate referral):
 - Are living with frailty (also see the <u>section on how to assess frailty in the</u> NICE guideline on multimorbidity).
 - Were injured in a fall and needed medical (including surgical) treatment.
 - Have experienced a loss of consciousness related to a fall (also see the <u>NICE</u> guideline on transient loss of consciousness ['blackouts'] in over 16s).
 - Have been unable to get up independently after a fall.
 - Have had 2 or more falls in the last year.

See the sections on:

- comprehensive falls assessmentand
- community settings comprehensive falls management.
- 1.1.4 For people who have fallen in the last year and who do not have any of the criteria for comprehensive falls assessment and comprehensive falls management in recommendation 1.1.3, assess their gait and balance (this can be carried out in the same service or involve an appropriate referral).
- 1.1.5 For people who have fallen in the last year who have a gait or balance impairment:
 - offer a falls prevention exercise programme and
 - consider a home hazard assessment.

These can be carried out in the same service or involve an appropriate referral. See the <u>section on community settings – people who have fallen</u> once in the last year and have a gait or balance impairment.

1.1.6 Offer health and wellbeing information, and advice on physical activity in line with the Chief Medical Officer's physical activity guidelines for people who:

- have not fallen in the last year or
- have had a single fall in the last year and do not have a gait or balance impairment.

Also see the <u>section on information and education for people receiving falls</u> assessment or interventions.

Identifying the risk of falls in hospital inpatient and residential care settings

- 1.1.7 Offer a <u>comprehensive falls assessment</u> and <u>comprehensive falls management</u> to people in hospital inpatient settings and <u>residential care settings</u>. Also see the sections on:
 - · comprehensive falls assessment
 - hospital inpatient settings comprehensive falls managementand
 - residential care settings comprehensive falls management.

For a short explanation of why the committee made these recommendations and how they might affect services, see the <u>rationale and impact section on identifying people</u> at risk of falls for further assessment.

Full details of the evidence and the committee's discussion are in:

- evidence review B: clinical assessments
- evidence review C: accuracy of screening tools
- evidence review D: electronic patient records
- evidence review E: methods of assessment.

1.2 Comprehensive falls assessment

- 1.2.1 Offer a comprehensive falls assessment for people who:
 - are in <u>community settings</u> and meet any of the criteria in recommendation
 1.1.3 or
 - are in hospital inpatient settings or residential care settings.
- 1.2.2 Include the following assessments and examinations (where appropriate) in the comprehensive falls assessment to identify the person's individual fall risk factors:
 - Alcohol misuse (see the <u>section on identification and assessment in the NICE</u> guideline on alcohol-use disorders).
 - Cardiovascular examination (including a lying and standing blood pressure test).
 - · Cognition and mood.
 - Delirium (hospital inpatient and residential care settings only; see the <u>section</u> on assessment and diagnosis in the NICE guideline on delirium).
 - Diet, fluid intake and weight loss.
 - Dizziness: ask about the presence and nature of any dizziness; if the person reports symptoms of rotational vertigo, consider performing a Dix–Hallpike manoeuvre (see the <u>section on dizziness and vertigo in adults in the NICE</u> guideline on suspected neurological conditions).
 - Footwear and foot condition.
 - Functional ability: assess the person's perceived functional ability and explore any concerns about falling.
 - Gait, balance and mobility, and muscle strength assessment.
 - Hearing impairments.
 - Long-term conditions that affect the person's daily life, for example, arthritis,

dementia, diabetes or Parkinson's disease

- Medication review.
- Neurological examination.
- Osteoporosis risk assessment (see the <u>NICE guideline on osteoporosis:</u> assessing the risk of fragility fracture).
- Urinary continence.
- Visual impairments.
- 1.2.3 Ensure that the person's individual risk factors identified in the comprehensive falls assessment are promptly addressed with appropriate interventions to reduce their risk of falls. These interventions can be offered in the same service or involve an appropriate referral. See the sections on comprehensive falls management in:
 - community settings
 - hospital inpatient settingsand
 - · residential care settings.

For a short explanation of why the committee made these recommendations and how they might affect services, see the <u>rationale and impact section on comprehensive</u> falls assessment.

Full details of the evidence and the committee's discussion are in:

- evidence review C: accuracy of screening tools
- · evidence review E: methods of assessment.

1.3 Interventions to reduce the risk of falls

Community settings – comprehensive falls management

These recommendations are for people in <u>community settings</u> who need <u>comprehensive</u> <u>falls management</u> to reduce their risk of falls (see the <u>section on identifying people at risk</u> <u>of falls for further assessment</u>).

1.3.1 Ensure that interventions to reduce the risk of falls are tailored to the individual so they promptly address any fall risk factors (see the <u>section on comprehensive</u> falls assessment).

Medication review

- 1.3.2 Consider carrying out a structured medication review:
 - to identify any medicines that may increase the person's risk of falls and
 - consider adjusting their medicines to reduce that risk.

Also see the <u>section on medication review in the NICE guideline on medicines</u> <u>optimisation</u> and the <u>section on reviewing medicines in the NICE guideline on</u> medicines adherence.

- 1.3.3 For people taking psychotropic medicines:
 - review any psychotropic medicines and
 - discuss the increased risk of falls associated with psychotropic medicines with the person and
 - plan withdrawal as appropriate and consider liaising with specialist mental health services.

Also see the NICE guideline on medicines associated with dependence or withdrawal symptoms.

Vitamin D supplements

1.3.4 Although there is insufficient evidence to support taking vitamin D supplements specifically to lower the risk of falls, encourage people to follow NHS advice on taking vitamin D to maintain bone and muscle health. Also see the NICE guideline on vitamin D: supplement use in specific population groups.

Home hazard interventions

- 1.3.5 Offer a home hazard assessment and intervention using a validated tool.
- 1.3.6 Consider having the home hazard assessment and intervention from recommendation 1.3.5 carried out by an occupational therapist. If an occupational therapist does not carry out the assessment and intervention, it may be done by:
 - an appropriately trained healthcare professional or
 - an appropriately trained therapy assistant or technician, with supervision from an appropriately trained healthcare professional.

Surgical interventions

- 1.3.7 If the person has visual impairment caused by cataracts, refer them to an ophthalmologist (also see the NICE guideline on cataracts in adults).
- 1.3.8 If the person has experienced falls with an unexplained cause:
 - investigate possible cardioinhibitory carotid sinus hypersensitivity as a cause
 and
 - consider cardiac pacing if indicated.

Falls prevention exercise programmes

1.3.9 Consider a falls prevention exercise programme for people who need comprehensive assessment and management.

1.3.10 Falls prevention exercise programmes should:

- be delivered by appropriately trained professionals
- be <u>progressive</u> and tailored to the person's specific needs, preferences, goals and abilities
- focus on functional components related to the person's risk of falls, such as balance, coordination, strength and power
- include regular exercise progress reviews
- be delivered in such a way, including duration of programme, to bring about behaviour change related to physical activity and sedentary habits.
- 1.3.11 Consider cognitive behavioural interventions for people who have concerns about falling that is not helped by strength and balance exercises.

Community settings – people who have fallen once in the last year and have a gait or balance impairment

These recommendations are for people in <u>community settings</u> who do not need <u>comprehensive falls management</u> (see the <u>section on identifying people at risk of falls for further assessment</u>), but may benefit from specific interventions to reduce their risk of falling.

Falls prevention exercise programmes

1.3.12 Offer a falls prevention exercise programme (see recommendations 1.3.9 and 1.3.10).

Home hazard interventions

- 1.3.13 Consider a home hazard assessment and intervention using a validated tool.
- 1.3.14 Consider having the home hazard assessment and intervention from

recommendation 1.3.13 carried out by an occupational therapist. If an occupational therapist does not carry out the assessment and intervention, it may be done by:

- an appropriately trained healthcare professional or
- an appropriately trained therapy assistant or technician, with supervision from an appropriately trained healthcare professional.

For a short explanation of why the committee made these recommendations and how they might affect services, see the <u>rationale and impact section on interventions to</u> reduce the risk of falls – community settings.

Full details of the evidence and the committee's discussion are in <u>evidence reviews F1</u> and F2: interventions for prevention of falls in community settings.

Hospital inpatient settings - comprehensive falls management

These recommendations are for people in hospital inpatient settings.

- 1.3.15 Ensure that interventions to reduce the risk of falls are tailored to the individual so they promptly address any falls risk factors (see the <u>section on comprehensive falls assessment</u>). This can be done by:
 - taking into account whether the risk factors can be improved or managed during the patient's expected stay and
 - identifying risk factors related to the ward environment and
 - providing individually tailored education sessions that the person is able to engage with and participate in (see the <u>section on information and education</u> for people receiving falls assessment or interventions).
- 1.3.16 At discharge from hospital, consider referring the person to community services so that risk factors identified during their hospital stay that would also be relevant in their discharge destination can be addressed.

Medication review

1.3.17 As part of a structured medication review, consider making appropriate adjustments to the person's medicines to reduce the risk of falls. Also see the section on medication review in the NICE guideline on medicines optimisation and the section on reviewing medicines in the NICE guideline on medicines adherence.

Vitamin D supplements

1.3.18 Although there is insufficient evidence to support the use of taking vitamin D supplements specifically to reduce the risk of falls while in hospital, encourage people to follow NHS advice on taking vitamin D to maintain bone and muscle health. Also see the NICE guideline on vitamin D: supplement use in specific population groups.

Physical activity and exercises

- 1.3.19 Encourage people to remain active during their hospital stay by:
 - reassuring them that they can still get up and do not need to restrict their activity (unless they have been advised not to) and
 - helping them to be less sedentary and more active, for example, encouraging them to get out of bed, get dressed and regularly stand up and walk around and
 - for people able to exercise, look for opportunities to encourage physical activity that addresses the person's risk of falls, such as balance, coordination, strength and power.

For a short explanation of why the committee made these recommendations and how they might affect services, see the <u>rationale and impact section on interventions to</u> reduce the risk of falls – hospital inpatient settings.

Full details of the evidence and the committee's discussion are in <u>evidence review G:</u> interventions for prevention of falls in hospital settings.

Residential care settings - comprehensive falls management

These recommendations are for people in residential care settings.

1.3.20 Ensure that interventions to reduce the risk of falls are tailored to the individual so they promptly address any fall risk factors (see the <u>section on comprehensive falls assessment</u>). This can be done by taking into account whether the risk factors can be resolved, improved or managed. Also see <u>section 11D on falls and falls prevention in NHS England's providing proactive care for people living in care homes – enhanced health in care homes framework.</u>

Medication review

- 1.3.21 Carry out a structured medication review as outlined in the <u>section on reviewing</u> medicines in the NICE guideline on managing medicines in care homes:
 - to identify any medicines that may increase the person's risk of falls and
 - consider adjusting their medicines to reduce that risk.

Also see the <u>section on medication review in the NICE guideline on medicines</u> <u>optimisation</u> and the <u>section on reviewing medicines in the NICE guideline on medicines adherence.</u>

- 1.3.22 For older people taking psychotropic medicines:
 - review any psychotropic medicines and
 - discuss the increased risk of falls associated with psychotropic medicines

with the person and

 plan withdrawal as appropriate and consider liaising with specialist mental health services.

Also see the <u>NICE guideline on medicines associated with dependence or</u> withdrawal symptoms.

Vitamin D supplements

1.3.23 Although there is insufficient evidence to support taking vitamin D supplements specifically to reduce the risk of falls, encourage people to follow NHS advice on taking a vitamin D supplement to maintain bone and muscle health. Also see the NICE guideline on vitamin D: supplement use in specific population groups.

Physical activity and exercise

- 1.3.24 Encourage people to remain active by:
 - reassuring them that they should not avoid getting up and moving around and
 - helping them to be less sedentary and more active by having a structured daily routine to ensure that they have opportunities to regularly stand up and walk around, as appropriate.
- 1.3.25 For people able to exercise, consider a programme that addresses the person's risk of falls, such as balance, coordination, strength and power. Programmes should be tailored to the person's abilities and preferences, and could be delivered on an individual or group basis.

For a short explanation of why the committee made these recommendations and how they might affect services, see the <u>rationale and impact section on interventions to reduce the risk of falls – residential care settings</u>.

Full details of the evidence and the committee's discussion are in <u>evidence review H:</u> interventions for prevention of falls in residential care settings.

1.4 Maximising ongoing participation in falls prevention interventions

- 1.4.1 In all settings, maximise the likelihood of people participating in falls prevention exercise programmes as follows:
 - Discuss and agree with the person what changes they are willing and able to make to reduce their risk of falls.
 - Encourage change and address potential barriers, for example, if a person doubts that they can complete the exercises or has concerns about falling.
 - Ensure the interventions are flexible enough to accommodate each person's individual needs and preferences.
 - Consider <u>supervised exercises</u> and, if these are provided, offer people a choice in how exercises are delivered, for example, individual or group exercise.
 - Where possible, enabling social contact and support.

For a short explanation of why the committee made this recommendation and how it might affect practice, see the <u>rationale and impact section on maximising ongoing</u> participation in falls prevention interventions.

Full details of the evidence and the committee's discussion are in <u>evidence review I:</u> maximising participation, adherence and continuation of falls prevention interventions.

1.5 Information and education for people receiving falls assessment or interventions

In all settings

- In all settings (<u>community</u>, hospital inpatient and <u>residential care</u>), discuss ways that people can reduce their risk of falls as well as improving their overall wellbeing, and provide information that they can take away. Involve the person's family and carers as appropriate. Topics to discuss include the following:
 - That a person's risk of having a fall depends on their individual risk factors
 (for example, increasing age, taking certain medicines, or having low blood
 pressure or cataracts), and that some risk factors can be modified (for
 example, by undertaking appropriate exercise interventions, having a
 medication review, or having cataract surgery).
 - That some falls are preventable, with suggestions and ideas to reduce the risk of falling, tailored to their individual risk and circumstances.
 - How interventions to prevent falls (for example, those focusing on exercise and staying active) can help, and how to stay motivated (for example, by participating in a group programme).
 - What to do if they have a fall, including how to get up, and when and how to seek help.
 - Sources of further information, for example, local and national organisations and support groups.

For more guidance on communication (including different formats and languages) and providing information, see <u>NICE's guideline on patient experience in adult NHS services</u>.

In hospital inpatient settings

1.5.2 In hospital inpatient settings, discuss the points in recommendation 1.5.1, and ways that people can reduce their risk of falls and improve their wellbeing in this

setting. Topics to discuss include the following:

- That a person's risk factors may change when they are in hospital.
- How to move around safely and stay as active as possible while in hospital, and when and how to seek help (for example, if they need to call for assistance to go to the bathroom).
- How to use unfamiliar equipment during their admission, for example, bed controls and the call bell.
- How they, or hospital visitors such as family members, carers and friends, can alert staff about potential falls hazards.
- What support may be available after they are discharged from hospital to reduce their risk of having a fall.

In residential care settings

- 1.5.3 In <u>residential care settings</u>, discuss the points in recommendation 1.5.1, and ways that people can reduce their risk of falls and improve their wellbeing in this setting. Topics to discuss include the following:
 - How to manage their safety concerns, including when and how to seek help if they have a fall.
 - How to move around safely and stay as active as possible.
 - How to use equipment in residential care settings, for example, bed controls, call bells and movement sensors.
 - How they, or visitors such as family members, carers and friends, can alert staff about potential falls hazards.

For a short explanation of why the committee made these recommendations and how they might affect services, see the <u>rationale and impact section on information and</u> education for people receiving falls assessment or interventions.

Full details of the evidence and the committee's discussion are in <u>evidence review A:</u> information and support.

Terms used in this guideline

This section defines terms that have been used in a particular way for this guideline.

Community settings

Settings where no accommodation or hospital admission is involved. This includes people's homes, community services, GP practices, hospital outpatient clinics, emergency departments and minor injuries units.

Comprehensive falls assessment

An assessment that aims to identify a person's risk factors for falling. This can be carried out by an appropriately trained single healthcare professional or a multidisciplinary team involving any of the following services, as appropriate: primary care services, community teams or specialist outpatient clinics (such as falls or geriatric medicine assessment clinics).

Comprehensive falls management

Management of falls using interventions tailored to address the risk factors identified in a comprehensive assessment. Individual interventions may be directly carried out by 1 or more health professionals in a specialist service (for example, a medication review by the team pharmacist or a home hazard modification by the team occupational therapist) or through referrals for further action (for example, a referral to ophthalmology for consideration of cataract surgery).

Factors that could increase the risk of falls

Factors that could increase the risk of falls include long-term health conditions that impact on a person's daily life such as arthritis, dementia, diabetes or Parkinson's disease; having had a stroke; and having a learning disability.

Progressive exercise

Exercise progression can be defined through a tailored (or individualised) increase in 1 or more factors involving the intensity, frequency, duration and complexity of exercise selection. This will be based on performance over the programme period.

Psychotropic medicines

Psychotropic medicines work in the brain. They affect behaviour, mood, consciousness, thoughts or perception. They include antipsychotic, antidepressant, anxiolytic, mood stabilising, and antiepileptic medicines. They are associated with an increased risk of falls.

Residential care settings

Accommodation that provides 24-hour care. This includes:

- residential care: providing personal care, such as help with washing, dressing, going to the toilet and taking medication
- nursing care: providing personal care, with qualified nurses on duty at all times.

Supervised exercise

A programme is supervised when a professional or trained non-professional has regular contact to reassess performance, correct technique, suggest progressions or regressions and to motivate and inform participants. Supervised programmes could be delivered one-to-one, in a group, in-person or online, and it is not necessary for all exercise to be directly supervised. For example, a supervised programme might include a once-weekly, instructor-led exercise class with additional home exercise carried out alone, or a home exercise programme with scheduled progress visits or telephone calls from the instructor.

Recommendations for research

The guideline committee has made the following recommendations for research.

Key recommendations for research

1 Wearable technologies for falls risk assessment

How accurate are wearable technologies in identifying risk of falls?

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on falls risk prediction tools</u>.

Full details of the evidence and the committee's discussion are in <u>evidence review E:</u> methods of assessment.

For a short explanation of why the committee made this recommendation for research, see the rationale section on comprehensive falls assessment.

Full details of the evidence and the committee's discussion are in <u>evidence review E:</u> methods of assessment.

2 Environmental interventions in hospital inpatient settings

Do interventions addressing the ward environment reduce the risk of falls in hospital inpatient settings?

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on interventions to reduce the risk of falls</u> – hospital inpatient settings.

Full details of the evidence and the committee's discussion are in <u>evidence review G</u>: interventions for prevention of falls in hospital settings.

3 Supervision interventions in hospital inpatient settings

Does enhanced supervision lead to a reduction in the incidence of falls in hospital inpatient settings?

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on interventions to reduce the risk of falls</u> – hospital inpatient settings.

Full details of the evidence and the committee's discussion are in <u>evidence review G</u>: interventions for prevention of falls in hospital settings.

4 Interventions for people in residential care settings with dementia

What interventions that address behavioural and psychological symptoms of dementia are most effective in reducing the incidence of falls in care home residents with dementia?

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on interventions to reduce the risk of falls</u> – residential care settings.

Full details of the evidence and the committee's discussion are in <u>evidence review H:</u> interventions for prevention of falls in residential care settings.

5 Assistive technologies

Do assistive technologies in community settings reduce the incidence of falls?

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on interventions to reduce the risk of falls</u> – community settings.

Full details of the evidence and the committee's discussion are in Full details of the evidence and the committee's discussion are in <u>evidence reviews F1 and F2:</u> interventions for prevention of falls in community settings.

Other recommendations for research

6 Environmental interventions in residential care settings

Do interventions addressing the residential care home environment reduce the risk of falls?

For a short explanation of why the committee made this recommendation for research, see the <u>rationale section on interventions to reduce the risk of falls – residential care settings</u>.

Full details of the evidence and the committee's discussion are in <u>evidence review H:</u> <u>interventions for prevention of falls in residential care settings.</u>

Rationale and impact

These sections briefly explain why the committee made the recommendations and how they might affect services.

Falls risk prediction tools

Recommendation 1.1.1

Why the committee made the recommendation

Limited evidence was found on assessment tools that identify people at risk of falls in hospital, residential care or community settings. The evidence related to tools was very low quality and did not reach an acceptable threshold of sensitivity or specificity. They were also impractical to use in some settings.

The committee discussed the complexity around assessing the risk of falling, including how the environment and individual risk factors can lead to falls, and agreed that it is not possible to predict a fall with any accuracy. They agreed that risk assessment tools are not particularly useful and can be a distraction because they only stratify people into high- or low-risk categories without recommending any further intervention.

In community settings, a number of studies assessing gait and balance (such as the Timed Up and Go [TUG)] test) were identified. Although the committee agreed that these tests are helpful in observing gait and balance problems, they do not predict a person's risk of falling. The committee acknowledged that case-finding of people who have had a previous injury from a fall or have had multiple falls, are living with frailty or have gait or balance problems, is useful to identify those who may need a more detailed assessment and would benefit from a more comprehensive management approach. The committee agreed that the same recommendations for community settings should apply to hospital outpatients.

The committee noted that risk assessment tools are not generally used in a hospital setting because the resources required to carry out assessments are often not available, and the results are not used to make management decisions.

Many people in residential care settings are likely to have frailty and are already

considered at risk of falls. For both hospital inpatient and residential settings, it is usual practice to carry out a comprehensive falls risk assessment because the person is considered as being at high risk of falling.

The committee were aware that wearable technologies are available that aim to predict a person's falls risk, but did not identify any evidence related to risk assessment tools or technologies for this update. The committee made a <u>recommendation for research about the accuracy of wearable technologies in identifying the risk of falls</u>.

How the recommendation might affect services

The recommendation reflects current practice and will have a minimal resource impact.

Return to recommendation

Identifying people at risk of falls for further assessment

Recommendations 1.1.2 to 1.1.7

Why the committee made the recommendations

The only evidence identified on how to clinically assess a person's risk of falls came from studies that investigated clinical judgement or the healthcare professional's knowledge of the patient. No evidence was identified on the most accurate methods of assessment. Evidence was only available for hospital and residential settings.

A few studies reported history of falls as a prognostic factor. The committee agreed that this is a good indicator, and a previous fall would trigger a referral for further assessment. The risk of falls is commonly picked up in community and hospital outpatient settings, where a healthcare professional will use the opportunity of the person presenting for an appointment or health check to identify people at risk of falls, for example, if a person has an unsteady gait, or if their knowledge of the person and their medical condition suggests they could be at higher risk of falls. However, the committee also acknowledged that, because of the short consultation time (for example, in a GP appointment), a healthcare professional will have limited opportunity and time to assess a person's falls risk. They also noted that it is current practice in community settings to assess risk based on observation

and ask a person about any history of falls, often during appointments with a nurse or physiotherapist.

The committee agreed with the current practice of a falls risk assessment for people who report having had a fall in the last year, and clarified the criteria about who should be offered a comprehensive falls assessment and comprehensive falls management. For people who have fallen but do not meet the criteria, the committee agreed they should have a gait and balance assessment in line with current practice.

The committee acknowledged that it would not always be practical to do an assessment in every scenario because not every service would have the expertise or time to carry this out. Therefore, sometimes an appropriate referral may be needed. For example, should a risk factor be identified at a hospital outpatient appointment, this could be noted in the letter usually sent to the GP to update them about the person's appointment.

How the recommendations might affect services

The recommendations reflect current practice and will have a minimal resource impact.

Return to recommendations

Comprehensive falls assessment

Recommendations 1.2.1 to 1.2.3

Why the committee made the recommendations

Limited evidence was found on the accuracy of individual risk factor assessment in identifying the risk of falls in older adults. Risk tools including minimum data set, comprehensive assessments, balance and gait assessments or wearable technologies, were included.

The committee agreed that the evidence did not identify which methods of assessment are most useful at predicting risk of falls. The tests tended to only assess 1 aspect associated with falls risk, such as balance or gait, and did not assess or examine other possible predictors. The committee agreed that any risk assessment tools should be used in conjunction with a comprehensive falls assessment, to reflect the multifactorial nature

of falls, and recommended a range of assessments and examinations to carry out, as appropriate. The complex nature of comprehensive falls assessment means that clinical judgement would be needed to determine what to assess and when for each individual person.

The committee agreed that components of the comprehensive falls assessment could be carried out by an appropriately trained single healthcare professional or a multidisciplinary team involving any of the following services, primary care services, community teams or specialist outpatient clinics (such as falls or geriatric outpatient services or assessment units). For example, some assessments could easily be done in primary care (for example, blood pressure and medication checks), whereas others may require referral to a specialist.

There was little evidence on wearable assessment technologies that met the inclusion criteria, because most of the studies identified were laboratory-based studies and therefore were not included. The committee agreed that further research in a real-world setting is required, and made a recommendation for research about the accuracy of wearable technologies in identifying the risk of falls.

How the recommendations might affect services

The recommendations reflect current practice and are unlikely to have a resource impact.

Return to recommendations

Interventions to reduce the risk of falls – community settings

Recommendations 1.3.1 to 1.3.14

Why the committee made the recommendations

Interventions to reduce the risk of falls for people presenting in community settings depend on the person's individual factors, and the characteristics and context of any falls that they have had. The committee agreed the criteria that would make a person eligible for a comprehensive falls management approach, and each of the following interventions are discussed in this context.

There was evidence on the clinical benefits of a medication review and withdrawing psychotropic medication in the community setting. It is current practice to carry out a review of a person's medicines for some people living in the community, but this is not specifically to reduce falls. The committee agreed that a person's medication should be reviewed and potentially changed to reduce symptoms and adverse events, or to improve quality of life. The committee also agreed that it is important to highlight to the person that psychotropic medicines are associated with an increased risk of falling, and withdrawal of these, if appropriate, would be beneficial. Therefore, they recommended discussing whether the benefits of those treatments are outweighed by the risks of continuing with them would help the person make an informed decision. Withdrawal of psychotropic medicines is difficult and needs to be reduced very slowly. This may need to be done in consultation with mental health services.

Most of the evidence for vitamin D showed no difference in the rate or number of falls, and the committee agreed that the clinical evidence did not support using vitamin D supplementation as an intervention to prevent falls in an older population. Vitamin D is part of standard care for people with a deficiency. The committee agreed the need to follow national public health guidance on vitamin D supplementation.

The evidence showed a clinical benefit of home hazard interventions to reduce falls. In most studies, this was a hazard assessment with modifications carried out in the home. The committee noted the greater clinical benefit seen in people who had fallen at least once in the last year. Greater benefit was shown when interventions were delivered by an occupational therapist although the evidence was low quality. Based on this evidence, health economic modelling found that home hazard assessment and modifications carried out by an occupational therapist compared with those carried out by a therapy assistant or technician are less costly and more effective.

Based on their knowledge and experience of current practice, the committee recognised that other healthcare professionals such as physiotherapists or nurses deliver home hazard assessments and interventions. They agreed that, in practice, therapy assistants or technicians may also carry out some aspects of home hazard assessments, but they acknowledged that this is under the supervision of a healthcare professional such as an occupational therapist (without the need for the healthcare professional to attend every visit). Due to the low quality of evidence and taking into account the likely resource impact, the committee could not recommend that home hazard assessments should only be conducted by occupational therapists. However, they agreed that consideration should be given to using an occupational therapist because this would be the optimal method of

service delivery.

The committee agreed that anyone carrying out home hazard assessments and interventions should have training to do so. They also agreed the importance of supervision for staff such as therapy assistants and technicians.

Limited evidence, in terms of quantity and quality, found a clinical benefit for cardiac pacing and cataract surgery in reducing the rate of falls. The committee agreed with the existing practice around cardiac pacing. They agreed that cataract surgery is a simple and effective intervention, and that people should be referred to an ophthalmologist, in line with the NICE guideline on cataracts in adults.

Overall, the large body of evidence showed some benefit for exercise as an intervention to reduce falls. The type of exercise included in the studies varied, but often included functional components related to the risk of falls, such as balance, coordination and strength. The committee agreed that exercise programmes should be individualised, based on an assessment, be progressive and tailored according to the level of risk of falling. A person's progression and continuing benefit from the exercise programmes should ideally be reviewed regularly. This would also include discussing with the person the importance of continuing to exercise beyond the structured programme, and explaining that exercise should be made part of everyday activity for life to maintain benefit.

The committee discussed the small amount of evidence for psychological interventions, all of which were for cognitive behavioural therapy (CBT), which showed some benefit although results were mixed. The committee discussed that in their experience, a small number of people who have concerns about falling may be referred for CBT. The evidence did not include concerns about falling, but the committee discussed how this can have a significant detrimental effect on quality of life. Although there was not enough evidence to support a CBT programme, the committee agreed that cognitive behavioural interventions could be considered for people who have concerns about falling and that have not been alleviated by strength and balance exercises.

People who have not met the criteria for a comprehensive falls assessment and management, but who have fallen in the last year and have been identified as having a gait or balance impairment, may benefit from specific interventions to reduce their risk of falling. The committee agreed that the evidence supports a falls prevention exercise programme for this population. People at lower risk are more likely to experience falls due

to gait and balance impairments. Therefore, the priority is to get this group into the most effective intervention, exercise, without having to wait for a comprehensive assessment, which is less likely to yield any further modifiable risk factors.

A recommendation to consider a home hazard assessment and intervention was made for people who had fallen at least once in the previous year. Greater benefit was shown when interventions were delivered by an occupational therapist although the evidence was low quality. Health economic modelling confirmed that home hazard assessment and modifications carried out by an occupational therapist are less costly and more effective.

There was not enough evidence on assistive technologies such as footwear and foot devices, self-care and assistive devices, so the committee made a <u>recommendation for research on whether assistive technologies in community settings reduce the incidence of falls.</u>

How the recommendations might affect practice

Home hazard assessments and modifications delivered by an occupational therapist have been shown to be cost effective, but there is likely to be an impact on resourcing and implementation in terms of staff capacity. Delivering exercise programmes may incur extra cost; however, the committee agreed that these can be effectively delivered by qualified fitness instructors and do not need to be prescribed through NHS settings in all cases. The remaining recommendations reflect current practice and will have a minimal resource impact.

Return to recommendations

Interventions to reduce the risk of falls – hospital inpatient settings

Recommendations 1.3.15 to 1.3.19

Why the committee made the recommendations

Limited evidence was found on medication review in hospital inpatient settings. A medication review would typically be carried out if a person was prescribed medicines known to increase the risk of falls, or they had a condition that could increase their risk of

falling. Adjustments to a person's medication may need be made as a result of a review, and this would usually be part of a comprehensive falls risk assessment.

Limited evidence was identified for vitamin D and nutritional support. The committee agreed the evidence was not sufficient to recommend these for falls prevention. However, vitamin D is already recommended in NHS advice and other NICE guidelines for maintaining bone and muscle health, so the committee referred to these sources.

There was limited evidence on the use of exercise interventions in hospitals, so the committee did not recommend specific exercises or exercise programmes. The committee noted that this is likely to be because most people are not in hospital long enough for an exercise intervention to have an effect on preventing falls. While they did not make a recommendation for a falls prevention exercise programme, they agreed that it is important to encourage people to remain as active as possible to prevent deconditioning and falls. This can be done simply through usual movement, such as standing or walking, rather than structured exercise. The committee also agreed that at discharge, referral to community services should be considered.

The range of environmental interventions included the type of flooring, low beds, identification bracelets and bed alarms, but the evidence was only in small, single studies. No benefit was found for identification bracelets that indicate if a person has previously fallen, but the committee acknowledged that 'tagging' is commonly used in hospital to enable staff to closely observe people identified at risk of falls, and provide more support with, for example, eating, getting out of bed and going to the bathroom. The committee agreed the need for more research on enhanced supervision interventions such as bay tagging and identification bracelets, and interventions addressing the ward environment such as ward layout, flooring, beds and alarms, because inpatient falls are a leading cause of hospital-related harm.

The committee made a recommendation for research on whether interventions addressing the ward environment reduce the risk of falls in hospital settings, and a further recommendation for research on whether enhanced supervision leads to a reduction in the incidence of falls in hospital settings.

How the recommendations might affect practice

The recommendations reflect current practice and will have a minimal resource impact.

Return to recommendations

Interventions to reduce the risk of falls – residential care settings

Recommendations 1.3.20 to 1.3.25

Why the committee made the recommendations

No evidence in residential care settings was identified for medication review. However, the committee referred to the NHS England guidance on providing enhanced care for residential settings. The committee agreed, based on their knowledge and experience, that in residential care settings, it is current practice to carry out a review of a person's medicines, although this is not specifically to reduce falls. The committee agreed that a person's medication should be reviewed and potentially changed to reduce symptoms and adverse events, or to improve quality of life. The committee also agreed that it is important to highlight to the person that psychotropic medicines are associated with an increased risk of falling, and therefore withdrawal of these, if appropriate, would be beneficial. Therefore, they recommended discussing whether the benefits of those treatments are outweighed by the risks of continuing with them would help the person make an informed decision. Withdrawal of psychotropic medicines is difficult and needs to be reduced very slowly. This may need to be done in consultation with mental health services.

Limited evidence showed a benefit in vitamin D and calcium supplementation in reducing fracture rates. The committee discussed the benefit of vitamin D supplements and acknowledged that this is standard care for people known to have a vitamin D deficiency, in line with existing guidance.

There was no evidence that any particular type of exercise was better than another, but there was evidence about the effectiveness of exercise in reducing the rate of falls. Exercises offered in residential care settings typically focus on strength, gait and balance. A high level of supervision is often required because people in residential settings often have frailty or a cognitive impairment. The committee agreed that residents who are more mobile are likely to see a greater benefit from exercise interventions, although being mobile does increase the exposure to risk of falling.

There was a lack of evidence on interventions for people with dementia. Cognitive

impairment caused by dementia is common in residential care settings, and this population has an increased risk of falls because they are more likely to have gait and balance impairments and be taking medication that increases falls risk. Because no studies were identified that evaluated specific pharmacological or non-pharmacological interventions targeting behavioural and psychological symptoms related to dementia, the committee made a recommendation for research on interventions for people in residential care settings with dementia.

Limited evidence showed some benefit for 2 different types of environmental interventions (assisted home technology and wireless position-monitoring patch); however, the committee agreed this was not enough to make a recommendation. Therefore, they made a recommendation for research on environmental interventions in residential care settings.

How the recommendations might affect practice

The recommendations reflect current practice and will have a minimal resource impact.

Return to recommendations

Maximising ongoing participation in falls prevention interventions

Recommendation 1.4.1

Why the committee made the recommendation

Limited evidence was found for methods of improving participation in, adherence to, or continuation of falls prevention interventions. All the studies were carried out in community settings and had low numbers of participants. Although most of the interventions used in the studies showed some benefit in terms of improving adherence or participation, the evidence was very low quality, so the committee based the recommendations on their experience and consensus.

For supervised exercise, benefits were seen in terms of participation or adherence in interventions delivered by group sessions or remotely via live video compared with those delivered with no support. This was reflected in the committee's experience. The committee noted that the social aspects of group activity can have a beneficial effect and

help relieve loneliness or feelings of isolation. In their experience, people are more likely to continue with exercise as part of a group rather than when exercising individually. However, they also recognised that some would prefer individual exercise sessions, so a personalised approach is needed, and people should be offered choice in how exercise is delivered. In-person sessions may be more suitable for people with more frailty and could require more supervision.

How the recommendation might affect practice

There is variation in how falls prevention exercise programmes are delivered. The recommendations may result in more people adhering to supervised exercise interventions, and this could require more staff time to provide supervision. However, there is flexibility in how supervision can be undertaken. Often, a supervised exercise programme can be a mixture of supervised and unsupervised exercises. For example, a programme can start as face-to-face then people can do it themselves with regular telephone check-ins. The committee agreed that, in their experience, not everyone would opt for supervised exercise. Some people may not feel comfortable exercising in front of others or find attending regular classes difficult to manage or travel to, and consequently would choose online exercise programs. Also, any additional costs would be offset by the reduced falls and associated cost savings resulting from improved adherence to fall prevention exercises. As a result, the resource impact is unlikely to be significant.

Return to recommendations

Information and education for people receiving falls assessment or interventions

Recommendations 1.5.1 to 1.5.3

Why the committee made the recommendations

A qualitative review examined the information and education needs of people at risk of falls. Overall, the themes reported in the evidence aligned with the committee's knowledge and experience of NHS-based practice and falls prevention interventions in the UK. Therefore, the committee were confident in making recommendations based on these findings and supplemented any gaps in the evidence base with their consensus opinion and their knowledge and experience.

One of the most prevalent themes to emerge from the evidence related to empowerment. Discussions that are positive and include information about falls prevention were found to be helpful, but discussions that inadvertently give the wrong messages can create fear and anxiety, and lead to people avoiding activity.

The most common information need identified in the evidence was about risk factors. The committee echoed this and recommended that these should be discussed with the person and agreeing what changes would help reduce their risk of falls. The committee agreed it is important to make people aware of their individual risk factors, and to give personalised information about falls prevention. Prevention strategies for other specific falls risks may include review of a person's medications, and referral, for example, to podiatry for gait issues, an optician if vision is a problem, or an ophthalmologist, if the person has cataracts. People should also be offered information and support to reduce the risk of falling in the home, for example, checking there is adequate lighting, removing trip hazards, and installing equipment such as grab rails or fall alarms.

Information on the value of exercise or strength and balance interventions and how to engage with these safely should be included in discussions or written information. The evidence showed the benefit of engagement with social networks and community groups, and that older people are more likely to adhere to group-based falls prevention activities because they promote encouragement and support from peers to maintain activities and improve motivation.

In hospital settings, people need additional information about operating and navigating unfamiliar equipment and environments. Falls prevention in hospital is largely dependent on factors such as call bells, supervision, bed rails and walking aids. These are likely to be unfamiliar to patients who will need advice on how they work and when to use them. The committee agreed that discharge planning from hospital, including ensuring people know about what support is available to reduce falls risk after discharge, is important, particularly if a person is not going back to their usual setting, or their falls risk or mobility needs have changed.

The committee agreed that people's information needs are similar regardless of the setting. One of the main points discussed by the committee is the importance of maintaining an active lifestyle and ensuring that people are staying safe while being as active as possible. They recognised that in residential care settings, there is a fine balance between maintaining safety of residents to avoid falls and promoting exercise and encouraging engagement in activities. Activity can be promoted by providing information

and education for people and their families on the benefits of exercise, and advice on how to maintain an active lifestyle safely in the specific setting.

How the recommendations might affect services

Although the recommendations are for different settings, in terms of resource impact, they are unlikely to be significantly different. The recommendations reflect current good practice.

Return to recommendations

Context

A fall is 'an unexpected event in which the participants come to rest on the ground, floor, or lower level'. Although falls can occur at any age, they become increasingly common as people get older. Around a third of people aged 65 and over, and around a half of people aged 80 and over, fall at least once a year. The impact of falls, especially in people aged 65 and over, includes distress, pain, injury including fractures, loss of confidence, loss of independence, and mortality. The consequences of fractures are significant, with a 1-year mortality rate of 31% after a hip fracture.

Between 2019 and 2020, there were around 234,800 emergency hospital admissions in England related to falls among people aged 65 and over. Around 157,370 (67%) of these admissions were among people aged 80 and over.

There are a large number of risk factors for falls. These include:

- a history of falls
- lower levels of strength because of a decline in muscle mass
- impaired balance because of declines and changes in sensory systems, the nervous system, and muscles
- polypharmacy and the use of psychotropic and antiarrhythmic medicines
- visual impairment
- environmental hazards
- frailty.

There is an increased risk of falling among some people under 65, including those with underlying conditions such as Parkinson's disease and diabetes. This updated guideline reviews methods of identifying people aged 50 to 64 who are at risk of falls in all settings (including homes and social care settings) and would benefit from preventative measures.

Falls can occur in any setting but are the most reported patient safety incidents in acute hospitals and mental health trusts in England and Wales. Therefore, the identification of people at risk of falls and measures to prevent falls in these settings, requires special

consideration. This update reflects changes in evidence related to falls in hospital, to encourage the uptake of similar measures at home and in social care settings, and to reflect national developments, such as the work of the National Falls Prevention Coordination Group.

Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the <u>NICE</u> topic page on injuries, accidents and wounds.

For full details of the evidence and the guideline committee's discussions, see the <u>evidence reviews</u>. You can also find information about <u>how the guideline was developed</u>, including <u>details of the committee</u>.

NICE has produced <u>tools and resources</u> to help you put this guideline into practice. For general help and advice on putting our guidelines into practice, see <u>resources to help you put NICE guidance into practice</u>.

Update information

April 2025: This guideline updates and replaces the NICE guideline on falls (CG161, published June 2013).

Minor changes since publication

May 2025: We changed recommendation 1.2.1 to clarify that people in a hospital inpatient setting or a residential care setting do not need to meet any other criteria for a comprehensive falls assessment.

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