Multifactorial falls risk assessment and prevention in acute hospitals

A practical guide for successful implementation

Contents

Introduction

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Reducing the number of inpatient falls in acute hospitals is important for several reasons:

- Inpatient falls are the most common safety incident reported by acute hospitals.[4] More than 240,000 falls are reported in acute hospitals and mental health trusts in England and Wales each year,[5] although underreporting may mean that the true incidence of falls is higher.[6, 7]

- Twenty-eight per cent of inpatient falls result in some level of harm and patients aged 65 years or older are more likely to be harmed.[4] Outcomes for patients who acquire hip fractures in hospital are far worse than for those in the community who acquire hip fractures, with significant differences in mortality.[8]

- Falls can lead to fear of falling and associated loss of confidence.[6, 9] They can result in slower recovery,[9] even when physical harm is minimal, and can have longer-term consequences for the patient's health, as fear of falling may lead to restriction of activity and associated loss of muscle and balance function, increasing risk of falling.[6]

- Falls can also be a cause of significant distress for families and staff.[7, 9]

- Falls in hospital are a common cause of complaints[10] and can be a source of litigation.[11]

- They are also associated with increased length of stay and greater amounts of health resource use.[7] It is estimated that inpatient falls cost the NHS and social care an estimated £630 million annually.[4]

The National Institute for Health and Care Excellence (NICE) clinical guideline on falls in older people (CG161) recommends that inpatients aged 65 years and older, or 50 to 64 years and judged to be at higher risk of falling due to an underlying condition, receive a multifactorial falls risk assessment and interventions tailored to address the patient's identified risk factors. NICE (CG161) also recommends that healthcare professionals involved in the assessment and prevention of falls should discuss with patients changes they themselves will make to prevent falls, promote their participation in falls prevention programmes, and that patients and their carers should be provided with information orally and in writing that explains the patient's individual risk factors for falling in hospital.

The purpose of this guide is to provide an overview of findings from a recent study that explored implementation of multifactorial falls risk assessments and tailored interventions in English hospitals. The study was undertaken in older person wards and orthopaedic wards across three acute trusts between November 2021 and June 2022, with data collected through observations of practice, interviews with staff, patients, and carers, and review of patient records. The study focused on (1) falls leadership, (2) multidisciplinary involvement and shared responsibility for falls prevention, (3) patient participation in falls prevention plans, and (4) the tools used to facilitate delivery of falls risk assessment and prevention plans.

Based on the study findings, this guide offers actions to help support implementation of multifactorial falls risk assessment and tailored interventions for older people in acute hospitals.

The guide is for those involved in care delivery, with relevance for all healthcare professionals and support workers, but also non-clinical staff who have patient-facing roles, such as ward clerks and ancillary staff, as well as for service managers who have responsibility for the systems and processes of care. We also provide guidance relevant for trust IT teams.

What is a multifactorial approach to falls risk assessment?

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Multifactorial falls risk assessment and personalised interventions

Multifactorial falls risk assessment aim to identify individual falls risk factors for each patient which may make them at risk of falling and that can be treated, improved, or managed during their stay. There are other types of falls risk factors e.g., environmental factors such as poor lighting and wet floors, but the focus of this study was individual falls risk factors and how they were identified and modified during a patient's hospital stay. The following modifiable falls risks are suggested in NICE (CG161):

- Cognitive impairment;

- Continence problems;

- Falls history, including causes and consequences (e.g. injury and fear of falling);

- Footwear that is unsuitable or missing;

- Health problems that may increase a patient's risk of falling;

- Medications that increase the risk of falls;

- Postural instability, mobility problems and/or balance problems;

- Syncope syndrome; and

- Visual impairment.

Multifactorial risk assessment contrasts with the traditional approach to managing falls in acute hospitals, where a falls risk prediction tool, sometimes referred to as a falls risk screening tool or fall risk score, is used. Such tools typically provide a list of falls risk factors, assign a numerical value to the presence or absence of the risk factor, and then sum the numerical values together to represent the individual's risk of falling (high, medium, low).[1] Interventions are then used to target individuals at high risk.[2] There are a number of problems with using falls risk prediction tools:

- There are issues with the extent to which such tools accurately predict a patient's risk of falling; they tend to have only moderate accuracy.[1] This means they may either provide false reassurance about those patients identified as low risk or result in most patients on a ward being identified as high risk.[2]

- They are often completed only once, typically on admission, while a patient's risk of falling can vary over time.

- Their use can give false reassurance that something is being done, even if no action to address falls risks has been taken.

- Actions tend to be linked to the score and can lead to a 'one size fits all' approach even though the issues and needs of individual high-risk patients can be very different.[2]

Multifactorial falls risk assessments, unlike risk prediction tools, do not include risk factors that are unmodifiable (i.e., cannot be treated, improved, or managed) such as age and sex. Based on multifactorial assessment, multidomain interventions should be provided for the patient, tailored to their individual risk factors. For example, if visual impairment is identified, it might be decided that an optician visit should be arranged or, if there is no known reason for poor eyesight, an ophthalmology referral is made.[3] In this way different patients, who have different risk profiles, will receive different interventions to reduce their risk of falls.

Further reading

- NICE Falls in older people: assessing risk and prevention (CG161): https://www.nice.org.uk/Guidance/CG161

- World Falls Guidelines: https://doi.org/10.1093/ageing/afac205

- Randell R, McVey L, Wright J, Zaman H, Cheong V-L, Woodcock DM, et al. Practices of falls risk assessment and prevention in acute hospital settings: a realist investigation. Health Soc Care Deliv Res 2024;12(5). https://doi.org/10.3310/JWQC5771

Putting it into practice:

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What typically happens now?

We found that most trusts have leaders and multidisciplinary committees at the organisational level with responsibility for falls prevention. Strategies leaders use to support implementation of falls prevention practices included education and training, dissemination of information, and monitoring service performance through audit. These strategies can reach a wide range of staff and direct quality improvement efforts. Interviewees in our study discussed the importance of taking a pro-active approach to dissemination e.g., visiting wards to speak to all staff and encourage them to act on the information they receive. They also commented that performance monitoring and review could be 'two-dimensional', with a focus on investigating and learning from what has gone wrong when a patient falls. While organisational staff emphasised that there was a culture of learning rather than blame from monitoring and review, this was not always the experience of ward staff. Safety II was highlighted as an alternative, pro-active approach to safe care, where the emphasis is on learning from successful practice i.e. where things have gone right, and how success can be achieved in varying conditions.

Ward-based falls leadership roles included the falls link practitioner, a role usually taken on by nurses and healthcare assistants. Falls link practitioners were expected to champion falls prevention in their clinical areas. Their duties and responsibilities, set out in roles descriptors, typically included disseminating information about falls prevention policy to staff and auditing adherence to these policies, providing advice and

education around assessment, intervention and management of patients who have fallen or are at risk of falling. However, pressures of work on wards meant it was not always possible to fulfil such duties or to attend the relevant training sessions.

In practice, ward nurses led falls risk assessments and prevention planning, and the documentation, whether paper or electronic, sat within their assessments. The patient records reviewed as part of our evaluation indicated that nurses completed this documentation consistently, complying with policy requirements. However, nurses explained that competing priorities on their time constrained how tools were used to support delivery of, and document, falls prevention practices (**see Section 6 for further details about use of assessment documentation**). Furthermore, despite the multidisciplinary nature of falls prevention, falls risk assessment documentation was rarely accessed by other professional groups (**see Section 4 for how risk was communicated amongst the multidisciplinary team**).

Risk screening is not recommended for falls prevention in hospital. However, screening to identify patients at high risk of falls was common practice in all sites. Nurses led delivery of risk screening and, with support from healthcare assistants, delivered enhanced patient supervision that was often allocated to patients screened as at high risk of falls. Enhanced patient supervision encompassed interventions such as one-to-one care and locating patients who are likely to fall together in cohort bays. A challenge for nurse leaders was that often there were not enough staff to deliver enhanced supervision in line with identified need (safety concerns were escalated to hospital managers); on the wards studied many older patients were considered high risk due to interacting risk factors such as mobility problems and cognitive impairment. Observations indicated it was often staff interactional skills that helped manage immediate falls risks for these patients, **see Section 5 for staff/patient interactions**.

Actionable guidance to support falls leaders implement multifactorial approaches

Empowering ward-based nurse leaders: Nurses may be best placed to lead falls prevention practices, but they work in an environment where systems and established practices emphasise use of risk screening and enhanced patient supervision as a key falls prevention intervention. Nurses need to be empowered to lead practices that modify individual falls risks, where possible, which may reduce reliance on enhanced patient supervision. Organisations should consider the following:

(a) **Falls prevention information and training** developed by NHS trusts should emphasise that stratification of patients as at high risk of falls is not recommended for falls prevention in hospital, and that recommended practice focuses on modification of individual falls risks, which requires the input of the whole multidisciplinary team.

(b) **Broadening performance monitoring and review:** where this is not already being done, the processes used by organisational committees and managers could be expanded to incorporate proactive approaches, such as Safety-II, which evaluate the ability to succeed in varying conditions. Such approaches may better encourage a culture of learning rather than blame and defensive practice.

(c) **Reconfiguring established systems and practices:** electronic documentation systems and established ward-based communication practices could be updated, with user involvement, to better support a multidisciplinary, personalised approach (discussed further in **Section 4 – Multidisciplinary Involvement, Section 5 - Patient Participation, and Section 6 – The Right Tools for the Job**).

(d) **Dementia/cognitive impairment training:** Where wards care for many patients that have some level of cognitive impairment, staff may require additional training to develop interactional skills that support safety efforts in the care of these patients, **see Section 5 for staff/patient interactions.**

(e) Falls link practitioners: are ideally positioned to champion multifactorial falls prevention practice through interpersonal contact and communication with colleagues. However, like ward-based nurse leaders, they need empowering in this role e.g., by having time ring fenced to attend relevant training and having their duties, in relation to falls prevention, distinguished from those of the ward manager/nurse-in-charge to avoid duplication of effort.

Prompts for reflection on use of enhanced patient supervision in falls prevention

- Who decides which patients require extra supervision and what information are they drawing on to make this decision?
- How frequently are decisions about supervision reviewed? Should they be reviewed more often?
- Who is involved in supervision? Could others be involved, e.g. volunteers, relatives?
- What are the benefits of supervision as a falls prevention strategy for patients and staff?
- What are the disadvantages of supervision as a falls prevention strategy for patients and staff?
- What are the alternatives to supervision as a falls prevention strategy?

Further reading

- Alvarado N, McVey L, Hardiker N et al (2024) Strategies used by nurse leaders to support the delivery of falls prevention practices in hospitals. Nursing Older People. doi: 10.7748/nop.2024.e1478
- Hollnagel, Erik. Safety-I and safety-II: the past and future of safety management. CRC press, 2018.
- Health Education England. Dementia Training Standards Framework. 2018 -https://www.skillsforhealth.org.uk/resources/dementia-2015-updated-2018/

Putting it into practice:

Multidisciplinary involvement and shared responsibility

4

What typically happens now?

Falls prevention was understood as a multidisciplinary problem, and professionals in different specialities discussed how falls prevention was incorporated into their specific roles and documentation processes. However, the multifactorial falls risk assessment, completed by nurses, was rarely accessed by staff in other specialities. We explored how multidisciplinary team members shared information about patients' individual falls risks and prevention plans. Communication between staff was primarily verbal, both formal, e.g., in handovers, multidisciplinary team meetings and safety huddles, and informal e.g., at the nurses' station and corridor chats. Multidisciplinary team meetings and safety huddles involved a range of staff, especially when they were held at times when different professionals could attend. Safety huddles were structured differently across trusts, e.g. sometimes discussion was structured around type of risk – such as falls , cognitive impairment, and pressure ulcers, whereas in other cases they were patient-focused, with discussion focusing on individuals, covering each of their risks in turn. What we found was that during formal communication, discussion often focused on patients stratified as at high risk of falls and the type of enhanced patient supervision they were receiving.

Informal communication facilitated multidisciplinary teamwork in direct patient care, providing opportunities for staff to quickly share information about a patient's condition and care needs including their falls risks.

However, wards were resourced differently in terms of staff e.g., some had dedicated physiotherapy teams, while in others, therapists worked across different wards with limited time in each. Availability of different professional groups, or lack of, on wards influenced opportunities for informal communication to support cohesive teamwork. Additionally, enhanced patient supervision, delivered by nurses and healthcare assistants, was a key falls prevention intervention often used for patients stratified as at high risk of falls, as discussed in **Section 3**. These established practices (risk screening and use of enhanced supervision) meant that falls prevention was sometimes considered primarily an issue of supervision, constraining the extent to which responsibility was felt to be shared across the multidisciplinary team.

Alongside verbal communication, visual communication tools were used, including patient bed boards, on which information is recorded about patient transfer and mobilisation needs. However, information displayed on bed boards can be variable and incomplete, so that staff do not have accurate information about how to support a patient to mobilise. As well as bed boards, wards typically have dry-erase whiteboards or electronic whiteboards which, alongside other information, may indicate patients at risk of falling, but again this information can be incomplete. Often such boards categorise patients as at risk of falling, rather than providing information about why the patient is at risk.

Actionable guidance to strengthen multidisciplinary involvement and shared responsibility

Organisation of multidisciplinary meetings:

Staff who lead and organise safety huddles should involve colleagues from different disciplines, clinical and non-clinical, wherever possible. This could be facilitated by holding them at times staff from different disciplines can attend (normally between 0900-1700). If safety huddles are currently structured around different types of risk, consider changing the structure to a patient-focused one, where patients are discussed, one after the other, to facilitate discussion of patients' individual falls risks profile.

Formal communication of risk:

Frontline healthcare professionals and support workers should focus discussion on why patients are at risk. For example, if a patient is on medication that makes them confused or dizzy on their feet, if/how this medication is being modified should be highlighted as the underlying risk being addressed, as well as the physical support the patient may require to mobilise safely. Staff who attend handovers, multidisciplinary team meetings, and safety huddles should challenge assumptions about interventions needed to address patients' risks, to identify specifically what a given patient needs to prevent them from falling. Electronic documentation systems could be leveraged to support multidisciplinary communication around risk factor modification, see Section 6.

Visual communication tools:

Managers should ensure that there are processes in place to update bed boards and whiteboards regularly and accurately with the most recent information about patients' falls risks and actions to prevent falls.

Prompts for reflection on what and how information is provided to patients about their falls risks

- What information do we currently give patients about their falls risks and how they can reduce their risk of falling? How do we give that information – is it verbal or written?

- If we give patients written information, is it individualised and accessible to them? With consideration of cognitive impairment, language, and problems with hearing/sight.

- To what extent do patients understand and remember the verbal or written information we give them about their falls risks and how they can reduce their risk of falling?

- If nursing staff do not have time to explain to patients about their falls risks, who else might be able to take on this role? Is this something that healthcare assistants, engagement workers, or volunteers could do?

Further reading

- Further examples of staff interacting with patients and questions for reflection and discussion are available as PowerPoint slides on the project website: https://www.bradford.ac.uk/health/research/frames/

- A patient information leaflet, where you can tick the relevant falls risks and falls prevention actions for the patient, is available to download from the project website: https://www.bradford.ac.uk/health/research/frames/

- Jayita De, Anne P. F. Wand, Delirium Screening: A Systematic Review of Delirium Screening Tools in Hospitalized Patients, The Gerontologist, Volume 55, Issue 6, December 2015, Pages 1079–1099

- Mcvey, Lynn, et al. "Interactions that support older inpatients with cognitive impairments to engage with falls prevention in hospitals: An ethnographic study." Journal of Clinical Nursing (2024).

Putting it into practice:

Patient participation

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What typically happens now?

Nurses, who conduct falls risk assessments, explained the importance of getting to know patients to better understand their motivations, concerns and preferences and that carer and relative involvement can be very valuable in this process. Learning about patients' needs, preferences, and motivations helped staff personalise care in ways that supported falls prevention e.g., understanding and providing a patient's drink preference may prevent them mobilising alone (to get their desired drink) if they are unsteady on their feet. However, workload pressures, including documentation burden (**see Section 6, the right tools for the job**), meant that often nursing staff did not have the time to get to know patients explicitly as part of falls risk assessment and prevention planning, or explain to patients why they are at risk of falling or what they can do to prevent themselves from falling. Patients may be given a leaflet about preventing falls, but the guidance tends to be generic and does not help patients to understand their individual risks.

Non-clinical staff, such as housekeeping and clerical staff, and staff specifically employed to engage with patients, sometimes called activity coordinators or engagement support workers, where available, could help elicit information to personalise patient care. Activity and engagement coordinators also supported patient care and safety by finding out hobbies and interests so that they could offer them activities to keep them engaged and content during their hospital stay that helped to reduce risk taking behaviour. A previous study showed the benefits of volunteers supporting patients to reduce their risk of falling.[147]

Whilst patients were not observed as actively involved in falls risk assessment and prevention planning, patient directed messages to support safety e.g., to use the call bell when in need of assistance were provided in care delivery. Observations indicated that the quality or tone of the interaction between staff and patients can encourage patients to act on such messaging.

We found that the following relational qualities in staff helped them to work collaboratively with patients/carers on falls prevention:

- Compassion;

- Authenticity;

- Active listening;

- Questioning and motivational skills; and

- The ability to explain things clearly and succinctly at levels that are right for patients, without patronising them.

Many of these attitudes are conveyed through non-verbal as well as verbal cues, such as facial expression and tone of voice. Cognitive impairment constrained the extent to which some patients remembered or understood messaging directed at them. These patients were often allocated enhanced patient supervision where staff often intervened to address immediate falls risks, such as a patient trying mobilise alone when they were unable to do so safely. In these circumstances, these additional interactional skills were useful to address immediate falls risks:

- The skill to relate empathically with patients, prioritising their perspectives;

- The ability to negotiate with patients in ways that are meaningful to them and to distract them from acting in ways that might increase their risk of falling with conversation or activities;

- The ability to remind patients, perhaps repeatedly, or respond to repetitive requests, without becoming bored or irritated.

Actionable guidance for involving patients in falls prevention

Personalising care:

To personalise care in ways that support falls prevention efforts requires time for ward staff to get to know patients' motivations, concerns, and preferences. Reducing documentation burden (see Section 6) may enable nurses to spend more time getting to know patients to personalise their falls prevention plan. Additionally, where available, non-clinical staff such as engagement workers can support efforts to personalise care by speaking to patients and their carers and relatives about their needs and preferences and conveying outcomes to clinical staff.

Staff and patient interactions:

Patients with cognitive impairment that cause confusion and/or memory problems are often allocated enhanced patient supervision. However, rather than constant observation, it is often staff interactional and relational skills that support safety efforts when these patients engage in behaviour that may increase their risk of falling. Interactional skills also encouraged participation in safety efforts from patients without cognitive impairment.

Engaging patients in activities:

Patients may spend long periods of time in hospital and ward routines can become monotonous or may be confusing and distressing for patients with cognitive impairment who have difficulty understanding and retaining information. Alongside helping to personalise care, dedicated non-clinical staff, such as engagement and activity coordinators can play an important role providing activities that help patients feel content during their hospital stay and that may help reduce risk-taking behaviour.

Prompts for reflection on what and how information is provided to patients about their falls risks

- What information do we currently give patients about their falls risks and how they can reduce their risk of falling? How do we give that information – is it verbal or written?

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- Mcvey, Lynn, et al. "Interactions that support older inpatients with cognitive impairments to engage with falls prevention in hospitals: An ethnographic study." Journal of Clinical Nursing (2024).

Putting it into practice:

The right tools for the job

6

What typically happens now?

As trusts attempt to move towards the vision of a paperless NHS, falls risk assessment tools and falls prevention plans are often found within the nursing documentation section of the electronic health record. There is variation between trusts in the number and type of falls risk items included in the falls risk assessment and not all include the nine items recommended by NICE (CG161). Even where some items appear similar to NICE (CG161) items, they are not necessarily the same. For example, in one trust in our study, falls history was captured as 'fall in last 12 months' and was a 'yes/no' question, while NICE guidance refers to falls history in the context of trying to understand how, where, when and why a patient has fallen the past, which might identify treatable causes. Additionally, in some sites electronic systems also incorporate risk scoring/prediction, a practice not recommended by NICE (CG161) for falls prevention in hospital.

The falls risk assessment was a dynamic process, with nurses obtaining information from different sources including observation, asking patients and their relatives and carers, and the clinical record. We did not observe nurses using electronic documentation systems directly with patients. While nurses explained that documentation could provide useful prompts and reminders, they also talked about documentation burden, with many different assessments and care plans to complete and duplication of information across different pieces of documentation, including documentation used by different professional groups.

Nurses discussed that the amount of documentation they were expected to complete took them away from the patient bed-side and limited opportunities to get to know them in ways that helped personalise care, as discussed in **Section 5**. Even so, nurses completed documentation, partly as a protective measure, understanding that it is interrogated when falls incidents occur or if there is a complaint, as discussed in **Section 3**. With competing priorities on nurse time, documentation could become a 'tick-box exercise', with staff trying to complete assessment documentation as quickly as possible rather than using it as a prompt to assess particular risk factors or an opportunity to consider how a patient's care needs have changed. Prevention plans were often completed retrospectively, and on the night shift.

Actionable guidance for tool development

Tool items and structure:

Managers and IT teams should work together to ensure that items included in falls risk assessment tools align with NICE (CG161). Additionally, they should work with front-line staff to consider ways in which risk items can be phrased and responses entered to avoid tick-box responses and support nurses to (1) identify and document individual risks and (2) to ensure interventions to modify individual risks are documented, actioned, and updated e.g., through iterative usability testing with front line staff.

Reduce documentation burden:

Managers and IT teams should work with frontline healthcare professionals to identify ways to reduce documentation burden. This could include removing duplication of information and auto-populating items where the information is already available elsewhere in the electronic health record.

Multidisciplinary working:

Managers and IT teams should work with frontline healthcare professionals to consider how electronic health records can better support multidisciplinary communication and working around falls prevention. This could include, for example, ensuring that the falls risk assessment is fully integrated with and easily accessible by clinicians such as doctors and allied health professionals and automatically triggering a request for a medication review when this is identified as a risk factor for a patient.

Broadening monitoring and review of documentation tools:

Board members and managers should emphasise to frontline healthcare professionals that falls risk assessment tools and prevention plans are tools to support practice. This means moving away from a culture where documentation is seen as something to be audited and blame assigned when not completed to a culture of learning and continuous development (see Section 3, Falls Leadership).

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