National Patient Safety Agency

The ‘How to’ Guide for

Reducing Harm from Falls in Mental Health Inpatient Settings

Acknowledgements

This guide is based on the generic Patient Safety First How-to guide for reducing harm from falls, which was developed by:

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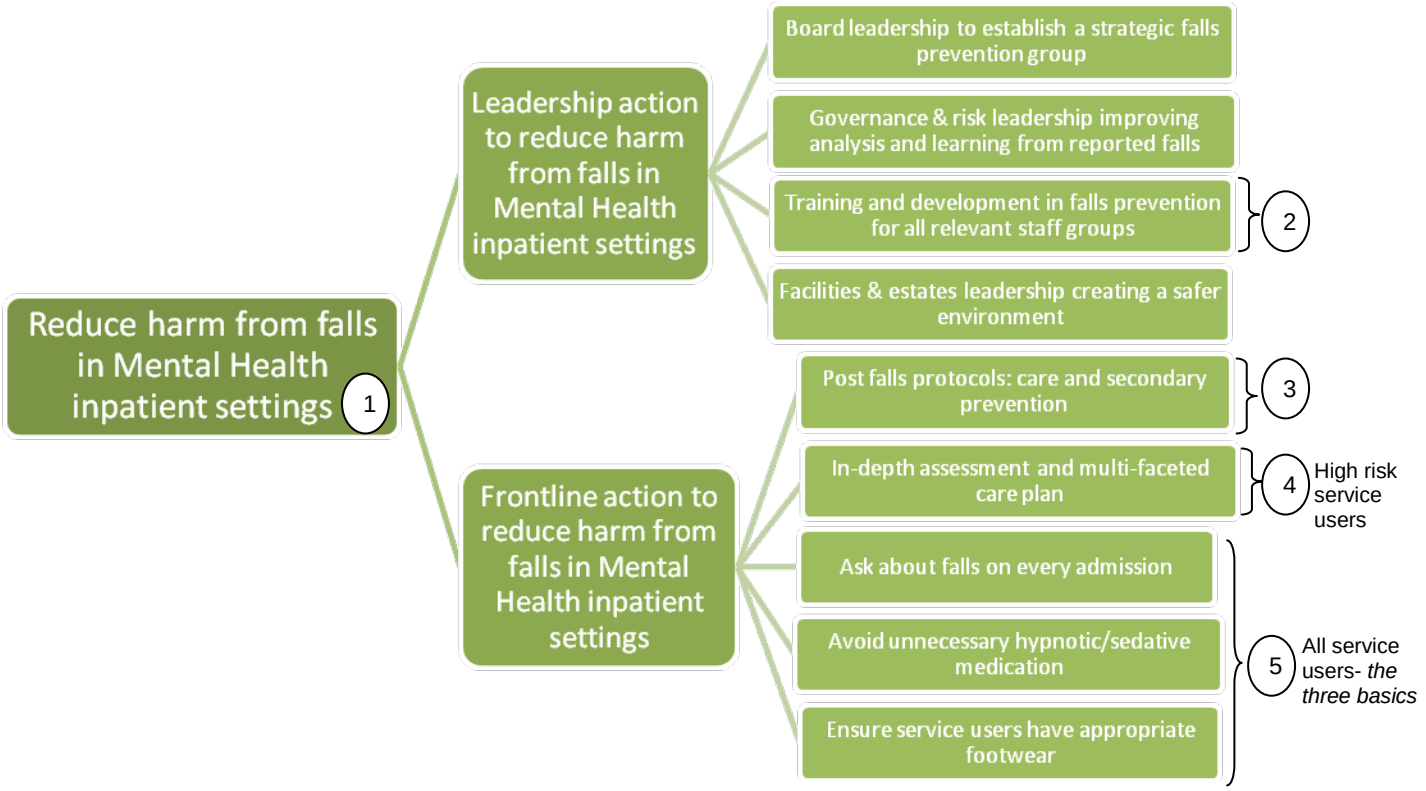


Recommended Measures

1. Rate of service users harmed by a fall
2. % of staff who have received falls management training
3. % of service users with appropriate observations after a fall
4. % of high risk service users with an action plan
5. % of service users who received the three basics of falls prevention

Introduction

In the UK and across the world healthcare providers are proving that patient safety can be improved. Many complications or harm events that were previously considered unavoidable are being shown to be avoidable; redefining what is acceptable in terms of patient safety.

The purpose of this 'How to' guide is to provide you with a focus on which to begin or progress improvements in reducing harm from falls in your mental health inpatient organisation. Each proposed intervention has an underpinning evidence base that identifies the need for change and how its elements can help you on a journey that will make a real impact on rates of patient harm and death.

The proposed elements, suggested changes and associated measures discussed in this guide are not exhaustive but a basis on which to start making a difference. It also provides a sound methodical approach that can be applied in other improvement efforts you may wish to initiate.

Who should use this 'How to' guide?

This document is aimed at managers and teams involved in leading and implementing change to reduce harm from falls to service users accessing inpatient mental health services.

Due to the complexity and multifactorial nature of falls prevention, this document has been divided into two sets of interventions – one for organisational leaders, and one for frontline staff - both of which need to be addressed by inpatient mental health organisations who wish to reduce harm from falls. Coordinated and interdependent workstreams need to be simultaneously developed.

Part A: Getting started. This section focuses on getting the right people to plan your intervention, agreeing aims and baseline measurements, and making sure your falls prevention activity is linked to other local workstreams such as improving physical wellbeing.

Part B: Leadership to reduce harm from falls. This section focuses on organisational infrastructure and is aimed at Board executives and senior leaders with responsibility for governance, training and development, and facilities.

Part C: Frontline actions to prevent falls. This section focuses on the actions required from frontline staff working with service users on wards and inpatient departments including ward and departmental managers, doctors, nurses, physiotherapists, pharmacists, occupational therapists, porters, cleaners and all other team members.

Why does falls prevention in mental health inpatient services matter?

Across England and Wales, approximately 36,000 falls are reported from mental health units each year (NPSA 2010). A significant number of falls result in death, severe or moderate injury, at an estimated cost of £15 million per annum for immediate healthcare treatment alone (NPSA 2007). This is likely to be an underestimation of the overall financial burden from falls once the

costs of rehabilitation and social care is taken into account, as up to 90% of older people who fracture their neck of femur never recover their previous level of mobility or independence (Murray et al. 2007).

In addition to these financial costs, there are other costs that are more difficult to quantify. The human cost of falling includes distress, pain, injury, loss of confidence and independence, as well as the anxiety caused to the person who falls, their relatives, carers, and healthcare staff.

People of all ages fall but falls are most likely to occur in older people who are more liable to experience serious injury (NPSA 2007). The causes of falls are complex and older people accessing mental health services are particularly vulnerable to falling because of dementia or depression, side effects from medication, or problems with balance, strength or mobility. Problems like poor eyesight or poor mobility can create a greater risk of falls when someone is removed from their normal environment because they are less able to recognise and avoid any hazards, whilst continence problems can mean people are vulnerable to falling when making urgent journeys to the toilet.

However, patient safety has to be balanced with independence, rehabilitation, privacy and dignity – a service user who is **not allowed** to walk alone may become **unable** to walk alone. Falls in healthcare settings and fall-related injuries are therefore a complex challenge for all healthcare providers.

What evidence is this 'How to' guide based on?

In 2007, the National Patient Safety Agency (NPSA) published *Slips, trips and falls in hospital* which analysed over 200,000 patient safety incident reports of hospital falls, including the underlying causes and contributing factors.

The purpose of the NPSA report was to help NHS staff working in acute, mental health, and community hospitals improve local learning from reported falls and take action to improve patient safety. It included links to the most successful studies of hospital falls prevention. This 'How to' guide draws on those studies and, although many of the studies took place in acute hospital settings, there are reasons to believe that most of the interventions used are effective in mental health inpatient services, because:

- the service users who fall in acute hospital settings and in mental health inpatient services share very similar risk factors – in the acute setting a high proportion of those who fall, (and almost all those who have repeated falls) have cognitive impairment (Oliver et al. 2010) and in mental health inpatient services a high proportion of older people with dementia or depression also have physical health problems;
- where sub-group analysis of falls prevention studies has been undertaken, the effect on falls prevention was found to be greatest in older people with cognitive impairment (Rapp et al. 2008);
- the most successful studies were in settings where older people had an average length of stay of at least three weeks, which is more typical of mental health inpatient services for older people than acute hospital admissions.

These are some of the key falls prevention studies:

Fonda et al. (2006): A three-year multidisciplinary quality improvement project focusing on all patients on elderly care wards. It combined improvements to the environment and equipment with staff education and changes to working practices, particularly staff identifying and acting on a range of risk factors for falls. Falls fell by 19%, and serious injury from falls fell by 77%.

Haines et al. (2004): A Randomised Controlled Trial (RCT) on rehabilitation wards for older people which included an exercise programme and education and information packs for staff and patients. Falls fell by 30% in the intervention group but the reduction in falls was most noticeable after the patients had been in the exercise programme for more than six weeks.

Healey et al. (2004): An RCT focusing on patients on acute care of the elderly and rehabilitation wards who had been admitted following a fall, were worried about falling, or had tried to walk alone when unsafe to do so. It used a core care plan that guided nurses in assessing and acting on common risk factors, prompted doctors to review medical causes and pharmacists to review medication. There were also system changes, such as, improved access to opticians and replacement slippers. Falls were reduced by 25% over a year.

Stenvall et al. (2007): An RCT focusing on a group of patients vulnerable to falling in hospital (those admitted with a fractured neck of femur) and used a multidisciplinary team to identify and address patients' individual falls risk factors, with an emphasis on eliminating causes of delirium, and early active mobilisation. Over more than two years, patients in the intervention group were almost three times less likely to fall and no serious injuries occurred.

Von Reteln-Kruse & Kruse (2007): A multidisciplinary before and after study focusing on all patients on elderly care wards and included additional supervision with mobility and toilet use, staff education, patient information, support with footwear, eyeglasses, and mobility aids, with a particular emphasis on reassessment after any fall. Falls fell by 18% over 18 months.

There are also three systematic reviews (Oliver et al. 2007, Coussemont et al. 2008, Cameron et al. 2010) that draw on some or all of these studies but also include studies from care homes, which might not always be relevant to inpatient services. An extensive overview of the evidence specific to inpatients, including mental health services, is provided by Oliver et al. (2010). This also includes updates on research related to ultralow beds and movement alarms.

Many mental health inpatient services will provide integrated care for service users in the community as well as those needing admission. The key evidence sources for falls prevention in older people living in their own homes are the NICE clinical guideline 21: *the assessment and prevention of falls in older people* (2004) and the Cochrane review (Gillespie et al. 2009). While falls prevention efforts need to be integrated across all settings, the evidence suggests mental health inpatient services should avoid a 'one size fits all' approach. For example, a risk assessment valid for service users living in the community is unlikely to be appropriate for an admission unit (see page 22).

This 'How to' guide seeks to support staff working in mental health inpatient services to practically embed the evidence through reliable systems which will help to reduce harm from falls.

Key Messages:

- In patient falls cost the NHS over £15 million per year as well as causing distress, pain, injury, loss of confidence and independence.

- Harm from falls in inpatient mental health units can be reduced with an integrated approach involving senior management and front line staff.

PART A: First Steps

This section identifies key issues you need to decide on before you begin to actively implement improvement toward reducing harm from falls in mental health inpatient settings. This part of the 'How to' guide will help you with:

- Understanding the improvement model and creating your team.
- Setting an aim and measuring a baseline.
- Important dos and don'ts.

Understanding the improvement model and creating your team

Read the Quick Guide to Implementing Improvement
Before progressing further with this document it is recommended that you read *The Quick Guide to Implementing Improvement* (available at www.patientsafetyfirst.nhs.uk) as it contains background information on:

- the Model for Improvement – an approach to undertaking any improvement activity;
- Getting Started – a series of actions to consider prior to implementing changes.

Create a strategic falls prevention team
Working through the list in 'Getting Started' in *The Quick Guide to Implementing Improvement* would see the establishment of a team that is committed to reducing harm from falls. Note that the formation of this group is also identified as an action for your executive team in Part B. Many hospitals and mental health units will already have teams in place responsible for reviewing procedures relating to falls. Where this is the case, it may be useful to review the membership (see Part B) and decide if additional clinical or improvement expertise would be helpful. Gather the team together and work through this document based on the approach outlined in the section called 'The Model for Improvement' in *The Quick guide to Implementing Improvement.*

Join your efforts up with other important workstreams
Many PCTs (Primary Care Trusts) identified inpatient falls in the contract performance specifications and GP commissioning consortia are likely to see falls prevention as an important quality issue. Falls also links to the national Dignity agenda, the Department of Health's guidance on the protection of vulnerable adults and the focus on quality. Falls are a proposed key outcome measure in *Transparency in Outcomes – a framework for the NHS* (Department of Health 2010) and a nurse sensitive metric in the Indicators for Quality Improvement (details at http://www.ic.nhs.uk/services/measuring-for-quality-improvement). So work in this area will be of particular interest to executive teams.

Your strategic falls prevention group should be linked with any other local projects that could have an impact on falls prevention. This could be by presenting your plans and results at each

others' meetings or by encouraging individuals to be members of more than one group. For example:

- Nutrition groups - any interventions to improve service users' strength or balance will rely on them being as well nourished as possible.
- Physical health - mental health and learning disability units need to link their falls prevention group to any local projects seeking to improve the general health of service users and the diagnosis and treatment of any physical illnesses, as this in turn is likely to reduce the risk of falling from medical causes.
- Parkinson's disease - initiatives to ensure service users get their medication on time.
- Delirium – prevention, early recognition and treatment can bring widespread benefits in reduced morbidity and mortality (British Geriatrics Society 2006) and is also likely to have a positive effect on the risk of falls (Stenvall 2007) and is the subject of NICE (2010) guidance.

Setting an aim and measuring a baseline

Setting an aim
In order to agree your aim you need to understand the current situation. Find out the number of falls in your organisation per month for at least the last six months and preferably 12-18 months. Use the calculation in the box below to work out the number of service users being harmed. This information will help you set a realistic time frame and goal. An example of an aim statement could be:

We will reduce harm caused by falls by 15% within one year.

Setting a target helps break a mindset where falls are seen as inevitable but it is important to strike a balance between being ambitious and being realistic. Remember that most of the research studies described earlier, even with the advantage of dedicated research staff and extra funding, took some time to see any impact from the changes and only reduced falls by an average of 18% (Oliver et al. 2007).

Measuring improvement
Measurement is the only way to know whether a change represents an improvement, although there are challenges in using reported falls as an outcome measure, which will be explored in more detail on the next page. The rate of harmful falls per 1000 occupied bed days is the recommended outcome measure and the following section describes how to collect this. Process measures (like the percentage of staff attending falls prevention training) will be described later.

Create the operational definition of your aim
For consistent measurement over time, it is important that you define any terms included in your aim statement. For example, if you are using the goal above relating to harm from falls, you will need to determine exactly what constitutes 'harm'. The simplest way to determine 'harm' is to

use the NPSA or your own organisation's grading that is built into your incident reporting system. Just determine which severity groups you are including.

Decide how you are going to collect your outcome measure
This measure is:

Measure	How to calculate	Guidance
Rate of service users who were harmed by a fall	• Determine the numerator: the total number of service users who were harmed by a fall in the month • Determine the denominator: the total bed days in the month • Calculate rate for 1000 bed days by dividing the total number of harmful falls occurring in the month by the total number of bed days in the month, and multiplying the result by 1000	• Use adverse incident reports as the primary data source • No sampling required. Count all falls that resulted in harm • Report data monthly

Although falls are the most commonly reported patient safety incident, some Trusts that have undertaken case note review using the Global Trigger Tool (http://www.ihi.org/IHI/Topics/PatientSafety/SafetyGeneral/Tools/TranslatedVersionsIHIGlobalTriggerTool.htm) have found that there is still a degree of under reporting. Sari et al. (2007) confirmed this but also suggested that the opposite can occur, with falls reported as incidents but not recorded in the service users' notes. Therefore, any initiative on falls can create increased awareness that leads to better reporting and an apparent increase in falls.

However, because no-harm falls are those most likely to go unreported (Haines et al. 2009), it is in this category that any increases should appear. The rate of harmful falls is less likely to be affected by improvements in reporting. The focus of this guide is to reduce harm which is why the rate of harmful falls has been chosen as the outcome measure.

It is worth collating a baseline of data that goes further back in time than you may normally need because it is helpful to be able to identify seasonal peaks. For example, falls may increase in the winter months due to higher numbers of older people with seasonal illness such as influenza in addition to their usual health needs.

You may also start or continue monitoring the total number of reported falls if this is still useful in understanding the whole picture of falls in your organisation. Be prepared however for the effect of increased reporting and recognise that a whole number (unlike a rate) will be affected by any increases or decreases in admissions and bed occupancy.

Counting reported falls is only one small aspect of a local reporting system – improving the quality and content of falls reports, and improving the subsequent investigation, analysis, feedback, and learning is covered in more detail in Part B.

Balancing measures
As highlighted later, actions to reduce falls need to be balanced with independence, rehabilitation, privacy, dignity and personal choices. If you feel your falls prevention programme may compromise these you may wish to include a balancing measure. This could include an audit asking service users questions relating to their dignity and independence or you could use routinely collected hospital episode data including length of stay and discharge destination.

Important dos and don'ts

DO post updates regularly and prominently
Enthusiasm for the project will wane over time if clinical staff perceive that the leadership's enthusiasm has diminished. It is essential to regularly update all staff involved in the work on the monthly level of compliance and the monthly change in the number of harms from falls etc. Not only will this show dedication to the project but when the momentum becomes apparent, clinical staff will be aware of the progress.

DO build actions into processes that already work
Making this initiative fit into the patterns and habits already established in your unit is essential. Where possible try to fit new actions alongside ones that are already in routine use. This increases the likelihood that they will be remembered and carried out.

DON'T focus on falls prevention at the expense of autonomy and rehabilitation

DON'T present falls prevention as a nursing problem
All the successful trials of falls prevention interventions have relied on getting the multi-disciplinary team involved and given the many different causes of falls, all the multi-disciplinary team is needed. Teams will be most effective if they engage doctors, nurses, therapists, pharmacists, domestic staff and relevant others to develop key aspects of the implementation.

DON'T judge the quality of care by crude falls numbers or panic because there is an increase in falls in one ward or department over a month or two
The numbers are small and one service user with complex needs can skew the data.

DON'T panic because falls rates don't drop in the first year or two
This may reflect better reporting. Additionally, there are few 'quick fixes' for a problem as complex as falls; most of the research studies described earlier found they had to make a concerted effort over six to 24 months before they began to see a reduction in falls.

DON'T focus on assessment tools, checklists or box ticking at the expense of real interventions which alter service user care
Assessment with no intervention wastes valuable time and resources and can be frustrating for service users and staff.

DON'T benchmark
The practice of comparing rates of disease entities or patterns of therapy across institutions is commonly known as 'benchmarking'. Benchmarking may not be a valid method to compare performance between facilities because of differences in service user population, data collection, or severity of illness**.** Fortunately, none of the work required to reduce harm from falls requires a comparison of rates between hospitals. As long as you establish clear methods and definitions for your regular data collection in your organisation, your results will consistently reflect your own improvement, which is the most important thing. Although we don't recommend directly comparing yourself with other mental health inpatient units, we do recommend learning from them. If you become aware of a mental health inpatient unit or hospital that has significantly improved using the same measure over time, then get in touch with them – there will be value in finding out how they achieved their results.

DON'T pick and choose the easiest bits
Discourage the tendency to select and try out items that seem easy at the expense of more difficult components also included in the intervention. There are many factors that contribute to falls and improving the care associated with each component of this intervention aggregates to a larger improvement overall. Only implementing one or two components reduces the overall impact of the intervention.

Key messages:

- Use improvement methodology to ensure a systematic approach that will result in demonstrably improved outcomes.
- Raised awareness of falls may result in increased reporting but this will mainly affect low and no harm incidents.
- Maintain a balance between improved safety and quality of life considerations such as privacy, dignity and independence.

PART B: Leadership Actions

This section addresses four key areas relating to reducing harm from falls in mental health inpatient settings that need to be addressed across the organisation by its leaders:

- Actions for the Board: Appoint an Executive Lead and establish a Falls Group.
- Actions for governance and risk leadership: Improve reporting and learning, and validate any prediction tool.
- Actions for learning and development leadership: Train and develop staff.
- Actions for Facilities leadership: Create a safer environment.

Actions for the Board:

Appoint an Executive Lead and establish a Falls Group

Appoint an Executive Lead
The appointment of an Executive Lead ensures that a reduction in harm from falls is seen as an integral part of the organisation's improvement agenda. The Executive Lead can provide a voice for the project at the Board, have the leverage to remove barriers to progress and ensure that falls is included in the leadership walkrounds agenda.

In the *'How to' guide for Leadership for Safety* (available at www.patientsafetyfirst.nhs.uk) it is suggested that there be an Executive Lead for each workstream relating to patient safety, with this responsibility included in the job plan and part of the appraisal process. More information on patient safety walkrounds can also be found in the same document and the more detailed supplement on the same website.

Establish a strategic Falls Group
The Executive Lead can be supported by a steering group which meets and reports monthly into the corporate assurance framework and ultimately to the Board. This steering group should be multi-agency and multidisciplinary; initiatives to reduce harm from falls are unlikely to succeed if they are seen as only relevant to nurses and physiotherapists. In addition, links with social and primary care are important for linking inpatient falls prevention with initiatives in other sectors. The group should, as a minimum, include representatives from these groups or departments:

Doctors	Physiotherapy	Executive Board
Pharmacy	Occupational therapy	Service users
Nursing	Social care	Training & Development
Governance/Risk	Psychology	Facilities

The falls steering group is an ideal place to draw up and systematically review action plans to address trends in falls. As well as leading on the main interventions described in this 'How to' guide, this group can address strategic falls prevention issues which go beyond individual units or departments, for example:

- Are there systems in place for service users to obtain a walking aid if needed? A Royal College of Physicians (2009) audit found 33% of hospitals had no system to provide such aids within 24 hours of admission.
- If a service user has fallen, especially a repeat faller, how will that information be shared throughout his/her journey, including repeat admissions? For example, one Trust attached a warning to the case notes of service users with a history of falling.
- Does the falls prevention information provided to service users and carers need updating?
- Are policies on observation for very agitated service users at constant risk of falling, appropriate and achievable?
- Are there waiting lists or capacity problems for inpatient referrals (such as, access to physiotherapy, occupational therapy, investigation and treatment of osteoporosis) that might impact on falls or injury prevention?

Although attendance at the Falls Group is not a formal measure in the intervention, the group should review records of attendance, particularly for staff representing the whole range of professional groups. Progress is likely to stall if any of the key professional groups are not part of the intervention.

Actions for governance and risk leadership: Improve reporting and learning and validate any prediction tool

Improve the quality of reporting

Consistent and good quality reporting of falls is fundamental to understanding where improvements can be made to reduce harm. Governance leads need to encourage reporting and also focus on the quality of information given in incident reports. An example of a prompt sheet for improving the detail required for meaningful reporting can be found on page 30 of *Slips, trips and falls in hospital* (http://www.npsa.nhs.uk/nrls/alerts-and-directives/directives-guidance/slips-trips-falls/ NPSA 2007). Internal reporting systems should strike a balance; ensuring reports are quick and easy to complete whilst collecting enough meaningful detail.

Improve the quality of analysis and feedback

Governance leads also need to ensure the reports of falls are meaningfully reviewed, analysed and used for learning. Feedback reports should be provided at unit, specialty, and Trust levels. A variety of different approaches might be needed to make the most of the data, including:

- Plotting all falls on a local map of a ward or unit. This can be done with retrospective data and adding new falls as they occur. This gives the ward staff a visual means of identifying 'hotspots' to make improvements.
- Considering similar ways to visualise trends such as plotting against a 24 hour clock to identify peak times which may be related to shift patterns, staffing levels or cleaning routines?
- Identifying the age group most affected by falls? Compared to beds occupied by gender, which gender is more likely to fall?

- Paying special attention to service users who are 'serial' fallers. Are there any patterns or specific types of service user you can identify and focus your improvement efforts on?

Root cause investigations for all serious falls
All falls causing significant injury (for example, fractured neck of femur) should receive a full Root Cause Analysis (RCA) investigation seeking to identify underlying causes and action plans to prevent similar incidents. With a commonly occurring issue like falls, aggregate root cause analysis (a combined investigation of a cluster of falls in similar circumstances seeking to identify common themes) may be particularly valuable. Tools to support full and aggregate RCA can be found at http://www.npsa.nhs.uk/nrls/improvingpatientsafety/patient-safety-tools-and-guidance/rootcauseanalysis/rca-investigation-report-tools/.

Locally validate your numerical risk assessment tool – or stop using it!
Reviews of the reliability of numerical falls risk assessments suggest that such tools may miss people who are likely to fall or overestimate the falls risk for others (Haines et al. 2007, Oliver et al. 2008). Even tools which worked well in research may not work in a hospital or healthcare organisation with a different case mix. Such tools may also contain questions or criteria which cannot be modified, such as 'age over 80 years', and may not contain criteria that could be acted on, such as current use of sedatives. Perhaps more importantly, most of the successful falls prevention trials described earlier did not use a numerical risk assessment score.

There can also be a risk that completing numerical assessment tools becomes an end in itself; recording the score is where the action ends. A key aim of this document is to highlight the need for an approach where risk factors are addressed and modified wherever possible, rather than simply used as predictors of the risk of falling.

Increasingly, organisations are realising that all inpatients are 'at risk' at some point during their stay, and key risk factors for falls – such as unsafe mobility, confusion, or continence problems – need assessing and addressing in their own right. People admitted with a history of falls, or who have fallen since admission are the priority for targeting prevention efforts, but in some areas (for example, wards caring for older people with organic illness) it may be more appropriate to assume that all service users are at high risk of falls and use assessment formats, core care plans, pathways and care bundle documents that help staff consider and act on risk factors that can be changed.

Hospitals that are currently using a numerical risk assessment tool need to understand how sensitive and specific it is in their local service user population (that is, how often the tool over-predicts falls, or misses a risk in service users who go on to fall). This downloadable article - http://www.nursingtimes.net/nursing-practice-clinical-research/falls-risk-prediction-tools-for-hospital-inpatients-do-they-work/1999146.article provides an overview of why this is important and the information in Appendix 1 explains how to calculate any locally used tool's sensitivity and specificity using a combination of case note review and falls reported in your hospital.

To make this easier, an Excel tool which explains and completes the calculations can be found in the falls prevention pages at www.patientsafetyfirst.nhs.uk. All numerical risk assessment

tools are setting-specific and it is unlikely the same tool will work well for both service users in the community and service users in admission units.

If your organisation decides that its numerical risk assessment tool is sensitive and specific enough for your service users, you will need to ensure staff are aware of its limitations and use it in conjunction with clinical judgement and common sense (considering patients with a recent history of falls or fear of falls as higher risk, regardless of their actual 'score').

Actions for learning and development leadership:

Train and develop staff

Carry out training needs analysis
Learning and development leadership (supported by a falls team member/coordinator) may be best placed to undertake an extensive training needs analysis to identify staff requiring and receiving training in the prevention, reporting and management of falls.

What are we trying to achieve?
If this analysis shows there is a skills deficit, the leadership can ensure that an action plan for training is developed and implemented throughout the organisation. An example of an aim statement might be:

Within 18 months a minimum of 95% of all appropriate staff will have received training in falls management within the previous 12 months.

How will we know that a change has been an improvement?
You will need to collect information on how many of the targeted staff received appropriate falls prevention training. This measure is:

Measure	How to calculate	Guidance
Percentage of appropriate staff who have received training in falls management in the last 12 months	• Determine the numerator: the number of staff trained in the management of falls in the last 12 months • Determine the denominator: the total number of staff who require the training • Calculate the percent by dividing the numerator by the denominator and multiplying the result by 100	• No sampling - track 100% • Review training attendance lists • You will need a database listing all appropriate staff or make each area responsible for maintaining records. Consider using other systems in place for the tracking of statutory and mandatory training • Report data monthly

Develop and implement a plan for falls prevention training
Learning and development needs will vary between different groups of staff, including doctors in training, registered nurses, healthcare assistants, pharmacists, porters and cleaners, etc. but

make training multidisciplinary where possible. Consider novel ways of delivering training, including e-learning and ward-based teaching as well as traditional 'classroom' sessions.

For issues such as service users who want to walk alone although unsafe to do so, training needs to refer to legislation including the Mental Capacity Act (2005) and professional guidance including the Royal College of Nursing's *Let's talk about restraint* (RCN 2008).

Actions for Facilities leadership:

Create a safer environment

Instigate a rolling programme of environmental risk assessment
The mental health unit environment can have an impact on the risk of falls or injury and though the environment is usually less significant than the risk factors intrinsic to the individual, environmental improvements can benefit all service users. Facilities leadership is integral to ensuring an effective rolling programme of environmental risk identification and environmental improvement. The environment needs to be assessed considering the most vulnerable people who are using it – those with poor eyesight, mobility problems, confusion, etc. Environmental factors that may impact on the risk of falls include:

- Flooring surface, density, sheen, colour and pattern (can create an illusion of steps or obstacles)
- Cleaning methods and cleaning timing
- Lighting, including light gradients (moving from brightly lit into dimly lit areas) and daylight glare ('sun in my eyes') from windows
- Safe and accessible mechanisms for alerting staff
- Design of doors, including the effect of any automatic closures
- Distance between hand holds, hand rails, beds, chairs and toilets
- Line of sight for staff observing service users
- Signposting, particularly of toilets
- Trip hazards including steps, clutter, medical devices and cables
- Furniture stability when leaned on
- Range of equipment available for people with different needs and of different sizes, including beds, mattresses, commodes and wheelchairs.

Clear accountability structures for any environmental improvement plans
Where there is identified risk, the facilities leadership should ensure that there are systems in place to create, implement and monitor improvement plans. Facilities leaders are also well placed to ensure the effect of the environment on falls prevention is on the agenda for any refurbishment projects or new builds, when there are major furniture purchases, or when cleaning contracts or schedules are under review.

System in place for urgent environmental repairs
Assess how long on average it takes to carry out repairs that could create a falls hazard (for example, failed lighting or damaged flooring) from the time of initial request. You may need to

review your processes to create a system which allows urgent environmental repairs to be resolved in a timely manner.

Key messages:

- Ensure falls are an integral part of the organisation's improvement agenda.
- Good quality reporting is the basis for meaningful analysis and learning.
- Numerical risk assessment tools may not be sensitive or specific enough for local use.
- Risk factors should be addressed and modified and not just used to calculate a risk 'score'.
- Staff need to be trained and developed to support falls prevention.
- Working with facilities staff can create a safer environment.

Case Study: Tees, Esk and Wear Valleys NHS Foundation Trust

Tees, Esk and Wear Valleys NHS Foundation Trust (TEWV) provides a range of mental health services for the 1.3 million people living in County Durham, the Tees Valley and the Scarborough, Whitby and Ryedale areas of North Yorkshire. The services are spread over a wide geographical area which includes coastal, rural and industrial areas.

There are seven main hospital sites and several smaller sites; inpatient units for older people are located on eight different sites. Because of the risk factors for falling that are prevalent in older people with mental health needs, most reported falls (69%) were in older people's units.

The current approach to falls prevention at TEWV began with an enthusiastic clinical lead physiotherapist and modern matron who established a working party, equally committed to preventing falls. The key challenge they faced was that staff on the older people's units struggled to access expert advice on falls prevention.

This led to the creation of a falls assessment team, made up of a physical care practitioner, a physiotherapist, a pharmacist, an occupational therapist and a dietician, who all took on the role as an add-on to their core roles and responsibilities. This was fully supported by the general and clinical services managers. The falls assessment team developed their own expertise with the support of falls prevention experts working in local primary care trusts, and initially provided an assessment service in two localities. They would visit any inpatient with a history of falling or at high risk of future falls, and undertake a full multi-disciplinary assessment and plan of care. A typical assessment might include the team putting in place the use of protective equipment and mobility aids, alterations in medication, structured physiotherapy and occupational therapy programmes. In some cases the need for referrals to other services were highlighted, for example, orthotics and syncope clinics.

As the approach was developed and expanded across the trust, the core team was able to educate and empower ward staff to initiate the assessments themselves. The ward pharmacist, doctor, physiotherapist, occupational therapist and dietician now undertake assessment and intervention for service users. The falls assessment team's advice is only needed for those with more complex problems and challenges. Training has been carried out for more than 60 nursing, therapy, and medical staff with very positive feedback on how confident and knowledgeable they feel.

Andy Dove, charge nurse organic assessment says "The falls awareness training highlighted the importance of falls prevention in our older people with mental health problems. It identified the need for a truly multi-disciplinary team (MDT) approach, and gave staff the confidence to enable them to manage falls in our environment in a more proactive manner."

Alongside specialist assessment and care planning, the trust also undertakes regular environmental audit which has led to changes in seating and hand rails in patient and public areas and investment in ultra-low beds. Units plot all incidents of observed falls, service users found on the floor or those who may have been pushed, on the health and safety executive falls ward map (as per TEWV slips, trips and falls policy). This helps identify falls hotspots where better lighting or more staff interaction is needed.

Prior to the role out of the trust electronic record, service users with a history of falls or at high risk of falling were highlighted by stickers in case notes. As the electronic records were fully implemented within the trust a 'falls tab' has been created. This allows 'falls' and 'found on floor' to be recorded and reviewed. Additionally it records time, place and location of the 'fall' or 'found on floor' along with any

injury sustained. To ensure falls are continuously monitored the directorate uses electronic visual display boards (VDB). This is a task orientated board which is reviewed every morning within ward rounds to ensure timely assessment and management.

An electronic visual display board (eVDB) is similar to a spreadsheet of a Patient Status at a Glance Board, whereby information can be gained quickly and is accessible to the whole team. This forms the basis of the daily MDT report out. The eVDB is not a substitute for maintaining record keeping on PARIS. The eVDB allows rapid identification of areas of assessment that need addressing using a RAG rating. A RAG rating consists of red, amber and green rating depending on the urgency or outcome of any assessment. This allows staff to focus on the areas of importance and ensures that all staff can see the areas that need to be addressed.

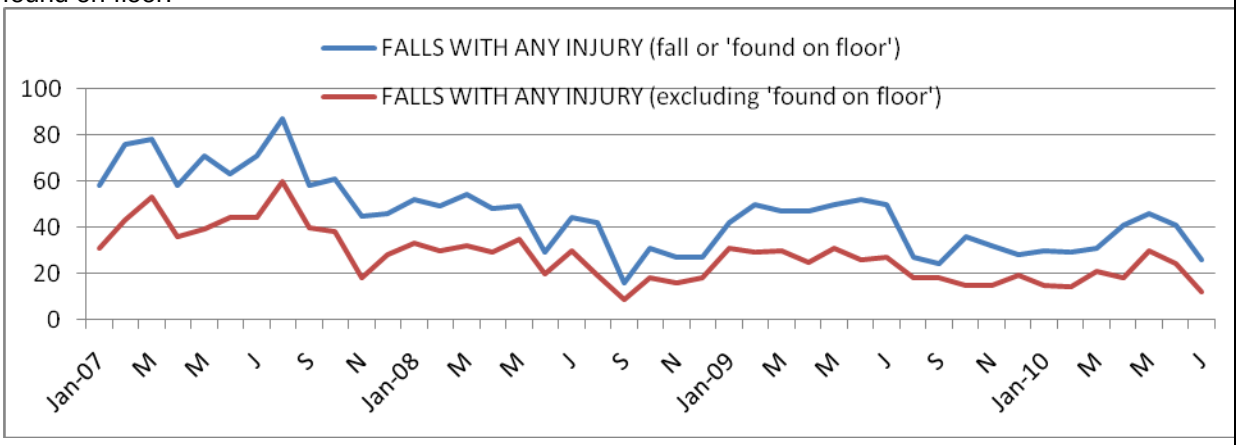
In particular to falls, the eVDB records the dates of first, second and subsequent fall. It also shows the risk rating identified from the falls screening tool, and whether that patient is on the falls pathway. It also ensures that should a fall occur that a post falls checklist has been carried out.

Finally the board has a task sheet where individual assessment tasks can be allocated to individual staff which clearly identifies responsibility, the timescale associated with the activity and improves accountability amongst the wider MDT.

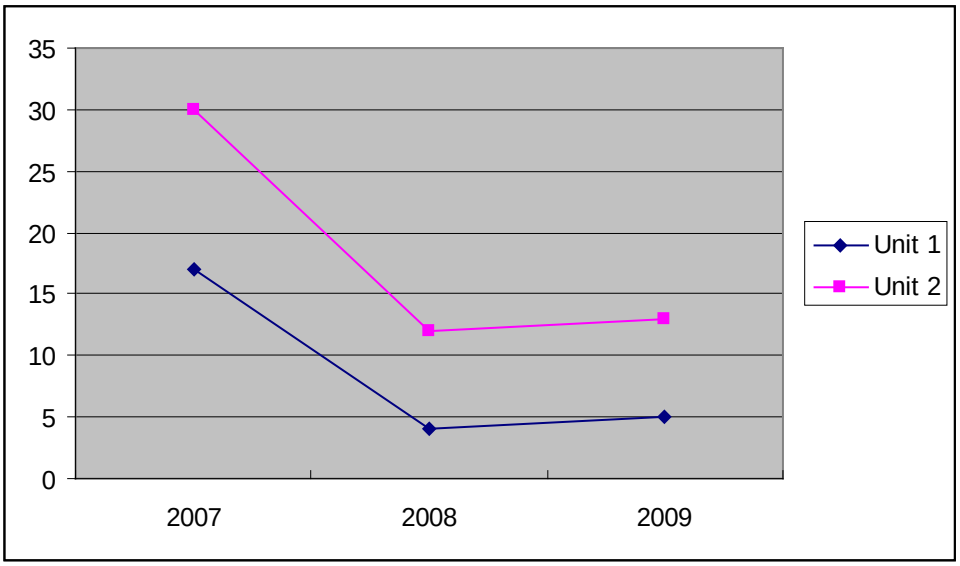
As improvements have become embedded on the inpatient units, the falls assessment team has been able to reach out to service users in their own homes. To avoid overwhelming the service user, each member of the team makes a separate visit, then the team meet together to recommend a plan of care.

As recommended in this 'How to' guide, the outcome measure the trust has chosen to focus on is falls causing injury. This is because in a mental health setting there will be patients who are found on the floor that may have put themselves there rather than fallen. Also initiatives like ultra-low beds might not reduce number of falls but should reduce the likelihood of injury. Between 2007 and 2010 the trust saw a sustained reduction of 58% in falls causing any injury.

Graph 1: A graph to show the number of falls that lead to harm and falls that lead to harm excluding found on floor.



Graph 2: A graph to show the number of falls leading to harm in two mental health units.



The trust continues to make further efforts in falls prevention. In-depth case reviews are held for all falls leading to fractured neck of femur to identify learning points that can be shared across the trust and the trust plans to expand this to all falls resulting in any fracture or head injury. The directorate annually carries out an audit of the NICE guideline 21.

Currently the trust is about to embark upon two projects regarding falls prevention, assessment and management. The first is the development of a trust wide MDT falls pathway. Secondly, a falls strategy specific to mental health services for older people will also be developed this year.

Ingrid Whitton, clinical director for mental health services for older people, says "We are delighted by the improvements we have achieved through ingenuity, dedication and collaboration with partners. However, I believe we should not be complacent, but rather look to ensure that improvements are sustained and built upon. In doing so we should always have in our minds the end goal, which is where no one is harmed through falls."

Martin Barkley, chief executive says "Patient safety is central to everything we do and I am extremely pleased with what this directorate has achieved. The measures have been put in place to constantly review our working practices to protect our patients but we are always looking to identify new ways to further improve patient safety."

TEWV falls prevention policies and local documentation can be found on their trust website at www.tewv.nhs.uk or by contacting the team at falls@tewv.nhs.uk.

PART C: Actions for Frontline Staff

The traditional approach to falls prevention programmes is to identify interventions that are helpful for all service users, with higher levels of interventions for those at higher risk, and an even higher level for those who have fallen. All of these are important but in this 'How to' guide for reducing harm from falls in mental health inpatient settings we're reversing the order and asking you to consider a set of actions in this order:

1. After a service user has fallen in a mental health inpatient unit.
2. Service users who need an in depth assessment and plan of care.
3. Basic assessments and safety for all service users.

We've changed the order because we want to change the emphasis - the best evidence for successful falls prevention interventions is from studies that focused the majority of effort on more vulnerable groups (whether that was service users needing rehabilitation, or those with complex physical needs etc).

This reversal of the normal order mirrors the approach taken by the *Falls and Bone Health Toolkit* (RCP 2009) which emphasises that there are still major gaps in secondary falls prevention and osteoporosis treatment even for the most high risk group - patients who have been admitted to hospital after fracturing their neck of femur. If we can't get falls prevention right for this most vulnerable group, we're not likely to get it right for service users who are considered to be at a lower risk of falls.

After a service user has fallen in a mental health unit

After a fall has occurred the initial focus has to be on rapidly identifying and treating any resultant injury. However, not all mental health units have a clear protocol for physical assessment after a fall including which physiological observations should be checked, at what intervals and for how long.

In addition, there is a need to identify and treat any new cause, because in a healthcare setting a fall can be a sign of a change in underlying illness (for example, a service user with dementia may have developed a urine infection).

It is also extremely important that any fall triggers a review to identify what further actions might be taken to prevent the individual falling again and for learning that might prevent others falling.

What are we trying to achieve?
In order to agree your aim you need to understand the current state. Find out if you already have a protocol in place for what should happen after a fall. If you do, perform an audit to find out your current level of compliance. This baseline audit will help you to set a realistic timeframe for your goal or aim.

An example of an aim statement could be:

By (date) all service users who experience a fall will have all the physiological observations and injury checks specified in our local falls protocol recorded immediately after the fall.

How will we know that a change has been an improvement?
Create your operational definition
In the example above this means establishing what observations and actions are appropriate after a fall. The measure is:

Measure	How to calculate	Guidance
Percentage of service users who after a fall have appropriate observations documented	• Determine the numerator: the number of service users in the sample with a documented action place • Determine the denominator: the total number of service users reviewed • Calculate the percent of observations completed by dividing the numerator by the denominator and multiplying the result by 100	• Use a random sample of service users who fell* • Use incidents reports as primary data source • Report data monthly

**You may decide to track 100% if your total number of reported falls is low.*

What changes can we make that will result in an improvement?
Ensure you have an up-to-date post-falls protocol
Review any post-fall protocol with the staff who use it based on the information in this document. Ensure head injury observations are based on the NICE clinical guideline 56 (NICE 2007) and refer to the NPSA Rapid Response Report *Care after an inpatient fall* (NPSA 2011). If you review your post-fall protocol, use the Plan Do Study Act (PDSA) cycle approach, outlined in *The quick guide to implementing improvement* at www.patientsafetyfirst.nhs.uk.

Make referring to the post-fall protocol easy. Consider putting a prompt sheet or flow chart with key somewhere easily accessible to staff. Put a box with the action points on a care plan designed for high risk individuals.

Suggestions for what should be in a post-fall protocol:

- Identification and treatment of any injury, including comfort, reassurance and pain relief where necessary. Supply details for onward referral or advice during days, nights, and weekends.
- Taking and documenting appropriate observations to identify injury, including observations to assess for medical causes of the fall (for example, increased confusion).
- Making safe any obvious environmental hazard that contributed to the fall.

- Informing and involving relatives (where appropriate) in any actions planned to reduce the risk of further falls.
- Completing an incident form even if the service user suffered no physical harm, including all the key information for learning discussed earlier.
- If there is serious injury, undertaking a full root cause analysis.
- Taking action to reduce the risk of this service user falling again – refer to the steps outlined in the section below.
- For repeat fallers, consider bringing in more senior staff or peers from a neighbouring department/unit; fresh eyes might identify further potential interventions.

Service users who need an in-depth assessment and plan of care

If numerical risk assessment tools were truly effective at identifying high risk service users, this section could have a much simpler title of 'high risk service users' but in the absence of an effective tool the term 'high risk' can be misleading. However, one size fits all is not appropriate either, because the successful falls prevention studies described earlier suggest special efforts need to be focused on groups who are more vulnerable to falling than the average service user.

So this part of the 'How to' guide requires you to decide which service user groups more vulnerable to falls you want to focus extra falls prevention efforts on. For these groups, aim to deliver an in-depth falls prevention assessment – a prompt list of falls risk factors that could be treated or better managed, not a numerical scoring tool - with interventions to reduce any identified risks planned and implemented. These vulnerable groups will vary between mental health units but should always include:

- all service users who have fallen as an inpatient
- all service users in units whose specialism makes them falls 'hotspots' (for example, dementia care).

Other vulnerable groups you may locally decide routinely need an in-depth assessment and plan of care for falls prevention could include services users:

- who try to walk alone although unsafe to do so;
- who express fear of falling;
- whose relatives are worried they might fall;
- with confusion and agitation;
- on older people's units;
- who have been calculated as 'high risk' **if** the tool used has been locally validated for sensitivity and specificity as described earlier;and
- who have been identified as frequent fallers.

Specialist departments might wish to add their own pragmatic triggers, for example, considering service users whose consciousness level is affected by alcohol to be temporarily at high risk of falls.

What are we trying to achieve?
An example of an aim statement might be:

Within one year all service users who have been identified as needing an in-depth assessment and plan of care will have documented evidence that this was completed and implemented.

How will we know that a change has been an improvement?
Create your operational definition.
Depending on the service user mix and your vulnerable groups, you may have identified a range of service user groups that you consider are in need of an in-depth assessment and plan of care for falls prevention (see the section below for suggested content); and identifying a random sample could be difficult.

To make data collection simpler we suggest mental health units might consider all service users on wards for older people with dementia are in need of an in-depth assessment and plan of care for falls prevention.

Decide what measures will inform you of your progress and how you are going to collect them.
The measure is:

Measure	How to calculate	Guidance
Percentage of service users admitted with falls who have documented evidence that an in-depth assessment and plan of care was completed and implemented.	• Determine the numerator: the number of service users in the sample with documented evidence that an in depth assessment and plan of care was completed and implemented. • Determine the denominator: the total number of service users admitted with falls whose notes were reviewed • Calculate the percent of observations completed by dividing the numerator by the denominator and multiplying the result by 100	• Use a random sample of service users admitted with falls for acute hospitals • Exclude service users for whom an in-depth assessment would be impossible or inappropriate (for example, unconscious or totally immobile) • Report data monthly

What changes can we make that will result in an improvement?
Ensure you have an up-to-date protocol for service users who have been identified as needing an in-depth assessment and plan of care for falls prevention.
Review any protocol for service users who have been identified as needing an in-depth assessment and plan of care for falls prevention with the staff who use it based on the information in this document.

Local documentation could be provided in the format of a core care plan, a care pathway document, or a care bundle – but the important thing is for your documentation to ensure each risk factor that has been identified leads to a clear plan of action.

Suggestions for what should be considered in local in-depth assessment and care plans:

- Ensure a **medication** review has been completed. Care plans could prompt staff with names of commonly used medications that increase the risk of falls (for example, hypnotics, antidepressants and antipsychotics), or have a sticker to request a pharmacist medication review.
- Investigate **medical causes** leading to the high risk status, for example cardiovascular factors, other physiological factors. Groundwork for medical interventions are nursing observations including ward tests of urine, lying and standing blood pressure, and temperature. Stickers could be used to request a review at the next MDT meeting.
- Test the services user's **vision**. A basic check for major visual problems (distinguishing a pen from a key at a beds' length away) should be feasible. Develop a system where glasses can be replaced and lens prescriptions updated* where necessary or referrals made to the local ophthalmology service for conditions such as cataract.
- Ensure referrals are made for **physiotherapy** review of the service user's balance and mobility and provide appropriate advice and/or mobility aids.
- For longer stay service users, evidence based **exercise** programmes for fall prevention may be appropriate (but always involve advice from physiotherapists, because for very frail individuals exercise, or inappropriate forms of exercise, may increase risk of falls (Sherrington et al. 2008).
- Ensure referrals are made to **occupational therapy** for assessment of the safest ways for individuals to carry out activities of daily living.
- Communicate the advice from physiotherapy and occupational therapy to all staff, and ensure **mobility aids** remain within reach.
- Assess the service user's **continence.** Are there remedial causes of incontinence or urgency, such as dehydration, urinary tract infections or constipation? Would he/she benefit from a tailored routine of offers to assist to the toilet?
- Consider **Vitamin D deficiency**. Most housebound people, including those with longer hospital stays, are Vitamin D deficient, and this can increase their risk of falls and fractures (Cameron et al. 2009)
- Undertake an **osteoporotic risk factors review** and if necessary investigate and treat (as per NICE osteoporosis guidance, 2008)
- High risk of falling needs to be considered as part of the **discharge planning** and aftercare, therefore those involved in this planning need to be aware.
- **Bedrail risk and benefit** review is a complex issue especially in mental health units and some notes on the safe and appropriate use of bedrails can be found in Appendix 2.

* People aged over 60 who are unable to leave home unaccompanied and/or are in receipt of certain benefits may be entitled to a free visit from an optician. An internet search using your county or city plus 'optician home visits' should give an idea of services available locally. Vision can be assessed and lens prescriptions adjusted even in service users unable to describe whether or not they can see the letters on opticians' charts.

An example of an individually targeted falls care plan

Based on the York randomised controlled trial (Healey et al. 2004)

GOAL: To reduce likelihood of falls whilst maintaining dignity and independence	State action taken:
Call. Ensure staff alert system explained and available if appropriate on risk assessment. Consider alternatives for service users unable to appropriately use staff alert system, for example, routine intermittent observation.	*Will probably call her daughter's name- moved to Bay 3 within earshot of nurses' station*
Eyesight. Ensure eyesight is checked wearing glasses if worn; able to identify pen/key from bed length away? If eyesight too poor to identify objects, ask doctor to review. Ensure glasses/hearing aid are worn or within reach.	*Glasses broken in fall at home. Has fair distance vision without. Family ordered replacement and hope to collect 7/3. Have suggested they order spare pair too*
Medication. Check for medication associated with falls risk, for example, sleeping tablets, anti-hypertensives or anti-psychotics. Ask doctor to review (do not stop abruptly).	*On temazepam 10mg nocte for some years - to review at ward round*
MDT. Ensure medical staff, physiotherapist, OT, social worker, etc. aware of the risk, frequency, nature, seriousness of falls. *(Local protocol or pathway would cover expected actions by MDT members e.g. physical examination, osteoporosis check, mobility aid review etc.)*	*SHO aware* *Physio & OT referral sent 5/3* *Noted on discharge plan*
Footwear. Check footwear for secure fit, non-slip sole, no trailing laces. Ask relatives to supply safer replacement or supply new slippers from ward store. Consider slipper socks in bed for service users at risk of falling at night.	*Backless slippers - not safe. Daughter cannot get replacement until Saturday. Provided with slippers from ward store.*
Place. Nurse in most appropriate place on ward for their needs e.g. close to nurses' station, close to toilet, quietest area (considering other service users' needs as well).	*In room 3 nearest toilet and within earshot of nurses' station*
Lighting. Consider appropriate lighting for needs e.g. bedside lamp left on overnight, night light in toilet.	*Will have overhead lamp on low overnight*
Urinalysis. Perform urinalysis. Send MSU if positive to blood, nitrates or protein.	*Nitrates+++ protein++ blood trace MSU sent 3/3*
Toilet. Does the risk of falls appear to be associated with need to use toilet? If so, a routine of frequent toilet visits may be helpful in preventing falls	*Currently frequency/urgency - will offer toilet every hour whilst awake*
Lying and standing blood pressure. Check L&S BP and record. If deficit exists inform doctor, advise service user on slow movement from lying to standing, and consider anti-embolism stockings.	*See TPR chart - no deficit*
Inform. Provide falls leaflet to service user/family, engage them in care plan, and check contact wishes in event of fall.	*Service user and daughter have leaflet and care plan explained. Contact wishes entered by NOK number.*

Basic assessments and safety for all service users

Almost all service users can be considered at risk of falls at some point in their hospital stay. Even young generally healthy individuals may be briefly at risk if their consciousness level is impaired or from side effects of medication. Service users with particular conditions may need a targeted approach; for example, service users with anorexia nervosa are at high risk of osteoporosis (Rigotti et al. 1991).

Many more will not be young and healthy, nor fall into one of the very vulnerable groups discussed earlier. For these service users, your standard admission formats are vital for identifying issues with mobility, balance, continence, confusion, or nutrition - all of which need assessment and actioned in their own right, as well as because of their contribution to falls risks. Documentation formats alone are not enough, and you may wish to discuss at your strategic Falls Group any local audits which identify gaps in how well these general assessments are completed, especially how often identified problems lead to actual changes in care or treatment.

In addition, this 'How to' guide suggests focusing on one basic assessment and two safety measures that would be relevant to every service user. We have called these the 'three basics':

- Ask service users on admission if they have fallen recently
- Avoid unnecessary hypnotic and sedative medications
- Ensure service users have appropriate footwear

Why the three basics and why are they important?

1. Ask service users on admission if they have fallen recently

The recent national *Falls and bone health audit* (RCP 2009) indicated that around 10% of hospitals didn't include any question about recent falls in their admission documentation. Even where a question about recent falls is included in documentation formats, it is not always completed, and positive responses are not always acted on. But this question is vital to identifying individuals who may need an in-depth assessment and plan of care for falls prevention such as the one shown earlier.

How the question is asked – whether as falls in the last three months, or month, or just 'recently', or as a question in a locally validated numerical assessment tool – is less important than ensuring it is asked.

2. Avoid unnecessary hypnotic and sedative medications

A review on drugs and falls in the older population demonstrated that 'a consistent risk relationship between the use of psychotropic drugs and falls was identified' (Nuffield Institute for Health and NHS Centre fro Reviews and Dissemination 1996). The increased risk was associated predominantly with antipsychotics, benzodiazepines, sedative-hypnotics and antidepressants.

In 2007, the Journal of the American Geriatrics Society reported 'use of antipsychotics for treatment of agitation and behavioural difficulties in elderly patients (for which they are not approved) was associated with 1.6 to 1.7 times greater mortality' (Shrank et al. 2007). In 2004

the NICE guidance on falls recommended that 'older people on psychotropic medications should have their medication reviewed, with specialist input if appropriate, and discontinued if possible to reduce their risk of falling' (pg 10).

Some of the successful falls prevention studies described earlier and a care home RCT (Zermansky et al. 2006) included an element of reviewing medications and discontinuing them when appropriate. A study presented at conference, found that around two-thirds of hospital patients who fell had received at least one medication that affects the central nervous system in the 24 hours prior to their fall, with some receiving as many as seven different types. By avoiding new prescriptions for these medications wherever possible and reviewing prescriptions for patients on admission, the hospital expenditure on these types of medication reduced steadily, and there was a corresponding decrease in falls (Close 2008).

Staff specialising in mental health are ideally placed to find the right balance so that service users who need to receive medication that may increase falls risk to treat their mental health condition are given the lowest appropriate dose for the shortest possible duration.

The aim is to avoid unnecessary or inappropriate prescribing of these medicines, not to set a numerical target for reduction of their use, in case service users who do require them find it difficult to obtain them or do not receive them at all. Therefore, the selected measure for this element is evidence that the service user has had his/her medicines reviewed, whether or not this led to decisions to continue or to discontinue sedative or hypnotic medication. Mental health staff are ideally placed to get this balance right but asking this question routinely will help all the MDT reflect on whether changes are possible.

Note that people habituated to sedatives or hypnotics should not have them abruptly discontinued, but gradually reduced.

3. Ensure service users have appropriate footwear

Service users may have been admitted in emergencies without bringing slippers or shoes, their slippers may be unusable by an episode of incontinence, or they may have only unsafe or poorly fitting footwear.

Many falls prevention policies offer advice on safe footwear, but just giving advice may not be helpful for an inpatient without regular visitors willing to go shopping for them and mental health units may only have disposable foam slippers available, which are not easy to walk safely in.

There is no definite evidence that improving footwear reduces the risk of falls but some of the successful falls prevention studies described earlier included footwear replacement and having shoes or slippers that are safe to walk in is a basic aspect of safety and dignity in normal life.

What are we trying to achieve?

A separate section on each of the basic assessments and safety measures follows, to provide information on how to ensure consistent measurement of each check and ways to make improvements in each. However, for the purposes of the Campaign an 'all or none' approach (as used in the measurement of implementing care bundles) has been taken to simplify the

measurement process. This approach also provides more clarity on how often you are getting all the basics right – for all service users.
An example of an aim statement could be:

95% of service users will receive the 'three basics' by January 2012

In recognition of the fact that this takes considerable time to achieve, you may wish to set milestones or 'half lives' to keep the momentum going over time. For example:

50% of service users will receive the 'three basics' by May 2011
80% of service users will receive the 'three basics' by September 2010

How will we know that a change has been an improvement?
Creating your operational definition
In relation to this measure you will need to determine what constitutes "appropriate footwear". Some guidance on this can be found in **Appendix 3**. There is one measure:

Measure	How to calculate	Guidance
Percentage of service users that receive the three basics of falls prevention	• Determine the numerator: the number of service users in the sample receiving all the four basics • Determine the denominator: the total number of service users reviewed • Calculate the percent compliance by dividing the numerator by the denominator and multiplying the result by 100	• Use a random sample of service users • Remember this is a YES/NO outcome – only service users receiving all four basics are recorded as compliant • Remember to give credit where a reason for exclusion is documented • Perform the audit weekly but report to the extranet monthly. Aggregate the weekly results by totalling the numerator and denominator separately and entering them onto the extranet. The extranet will perform the relevant calculation.

A sample audit form can be found in **Appendix 4**.

Information gained regarding these basics should be reviewed in conjunction with the information collected on incident reports of falls citing one or more of them as a possible contributing factor.

What changes can we make that will result in an improvement?
Ask service users on admission if they have fallen recently
If your current admission documentation does not include any prompts reminding staff to ask service users and their carers about recent falls, consider adapting your documentation to include it. If you do this, use the Plan Do Study Act (PDSA) cycle approach, outlined in *The quick guide to implementing improvement* at www.patientsafetyfirst.nhs.uk.

Remember how the question is asked – whether as falls in the last three months, or month, or just 'recently', or as a question in a locally validated numerical assessment tool – is less important than ensuring it **is** asked.

Avoid unnecessary hypnotic and sedative medications
How you build this check into your existing local processes will depend on what those processes are. The aim is to review hypnotic and sedative medicines prescribed for all service users and discontinue them unless the benefits clearly outweigh the risks. For habituated service users, tapered withdrawal rather than abrupt discontinuation is vital. Here are some suggestions you may wish to consider:

- A prompt to consider medication in the context of benefits and falls risk could be built into MDT meetings and Care Programme Approach reviews
- Where ward pharmacists routinely carry out medicines reconciliation on admission, they would be ideally placed to make such a check, or it could be made part of formats used by clinical staff on admission, or part of handovers between day and night shifts.
- Some hospitals have helped nursing staff to prompt medical staff by placing a 'please review' sticker in the service user's notes at the place that will be used to write up the next doctor's round, or provided pharmacists with tiny dot stickers with a falls risk symbol to place against high risk medications on the medication chart
- Consider adding a tick box into the admission proforma to ensure ALL prescribed medicines have been reviewed. The input of the pharmacist in your falls team is vital in considering the risk/benefit analysis for medicines you include in this part of the intervention.

Ensure service users have appropriate footwear
You will almost certainly need to develop a system for the prompt provision of safe footwear where service users have no safe footwear and cannot get it provided by relatives.

- Encouraging the hospital shop to stock slippers in a range of sizes will help service users or relatives with money to buy them. Some hospitals with shops on the premises selling aids to independent living have set up systems where if service users need special slippers for medical reasons – perhaps because of oedematous or bandaged feet – the shop will supply these and invoice the hospital.
- Checking your hospital's current expenditure on disposable foam slippers may help you make the case that buying a stock of new slippers in a range of sizes may actually prove cheaper, or your 'League of Friends' or similar patient support charities may be willing to fund the cost of start-up stock.

- Look into alternative footwear now available through NHS Supply Chain – your local purchasing department will be able to point you towards the correct catalogue pages.

Case study (source: Slips, trips and falls in hospitals)

One of the largest randomised controlled trials of implementing multifaceted interventions took place over six elderly medicine wards and two community hospitals in York.

As one part of a range of multi-faceted interventions, the trial secured a small budget to buy some proper fitting slippers in a range of sizes, for giving to service users when there are no relatives to bring suitable footwear in. These were kept in a cupboard to which the staff had easy access – they didn't have to fill out a form or make a requisition. The slippers cost less than £4 and were cheaper than constantly replacing the disposable foam slippers, which barely lasted for a day.

Since this trial, more options have become available for supply of safe slippers via NHS Supply Chain – ask your local purchasing department to show you their catalogues.

Consider observation and access to staff assistance for all service users

The generic version of the 'How-to' guide also included a measure on call bell in reach. We know this may not be appropriate across the range of mental health services, where service users may be able to seek help in person, spend much of their time in group environments, have challenging behaviours, require attention to potential ligature risks, be under special observation for a range of reasons including falls, or be unable or unwilling to seek help from staff. This makes it difficult to create a simple measure for mental health settings that equates to 'call in reach' for acute hospitals. Because of this, access to assistance is not a measure in this guide but should still be considered as part of general falls prevention efforts. Issues to consider include:

- Although many of the service users who fall may be too confused to access help before mobilising, any service user who is able to safely use a call bell/staff alert system should have it within sight and within reach.
- A proportion of national and local reports of falls in hospitals note that the service user was mobilising alone following an unsuccessful attempt in calling for help (although the cause of these falls is usually multifactorial rather than solely related to staff access).
- For service users with behavioural, communication or cognitive impairment who would be unable to use a call bell, consider what alternatives could be made available, for example voice intercoms, movement alarms, or simple traditional hand bells.
- Ensure service users feel confident in accessing staff, for example, some service users might think they are only allowed to do so in emergencies.
- If you provide special observation at a one-to-one patient level, or constant observation of a zone within the unit, how consistently is it implemented?

For all other service user areas, including toilets, bathrooms and day rooms, access to staff should be considered as part of the environmental reviews described earlier in Part B.

Key messages:

- Ensure you have a falls policy which is fit for purpose and being used.
- Ensure patients who have fallen get prompt and effective treatment of any injury.
- Concentrate your efforts on the most vulnerable groups first.
- Ensure all of your more vulnerable patients have a multidisciplinary, multifactoral falls prevention care plan.
- Use the three basics for all service users:
    - Ask about recent falls
    - Avoid unnecessary hypnotics and sedatives
    - Appropriate footwear
- Consider how services users can access staff for assistance, including lines of sight and special observation.

Closing comments

Reducing fall rates and the resultant harm is infinitely more complex than any brief guide such as this can convey. It is hoped that this document will help staff apply a sound improvement approach to this area and provide useful suggestions for actions that will help them to set and/or achieve realistic goals.

However this document is used, whether in full, in part or simply as inspiration for other relevant actions, its ultimate aim is to prompt teams in mental health to begin to increase their efforts to make a real difference in an area that causes pain and distress to many people every day.

Useful Links

UK hospital focused falls prevention resources:

- NPSA, The third report from the Patient Safety Observatory: Slips, trips and falls in hospital. 2007 http://www.npsa.nhs.uk/nrls/alerts-and-directives/directives-guidance/slips-trips-falls/
- "What's new in preventing falls in hospitals and care homes?" Dr David Oliver's presentation to at the British Geriatric Society Conference, November 2008. http://www.bgs.org.uk/Publications/powerpoints/Aut08_Falls_Oliver.pdf

International hospital focussed falls prevention resources:

NOTE some of the following 'How to' guides reflect different legislative requirements and healthcare practice in other countries, and some may not incorporate the most recent research on problems with numerical falls risk prediction scores.

- Institute for Healthcare Improvement (IHI) Transforming Care at the Bedside. How to 'How to' guide: Reducing Patient Injuries from Falls available at www.IHI.org
- On line network – Prevention of falls network Europe (ProFaNE) http://profane.eu.org/
- ECRI Falls Prevention Resources http://www.ecri.org/falls
- VA National Patient Safety Center Falls Prevention Toolkit http://www.patientsafety.gov/SafetyTopics/fallstoolkit/index.html
- Massachusetts Hospitals http://www.patientsfirstma.org/index.cfm
- Joint Commission Resources, Good Practices in Preventing Patient Falls http://www.jcrinc.com/patientfalls
- Australian Commission on Safety and Quality in Healthcare. *Preventing Falls and Harm from Falls in Older People. Best practice 'How to' guidelines for Australian hospitals and residential aged care facilities.* http://www.safetyandquality.org/internet/safety/publishing.nsf/Content/falls
- Registered Nurses Association of Ontario. *Prevention of falls and falls injuries in the older adult. Nursing Best Practice 'How to' guidelines* 2005 www.rnao.org/bestpractices/PDF/BPG_Falls_rev05.PDF

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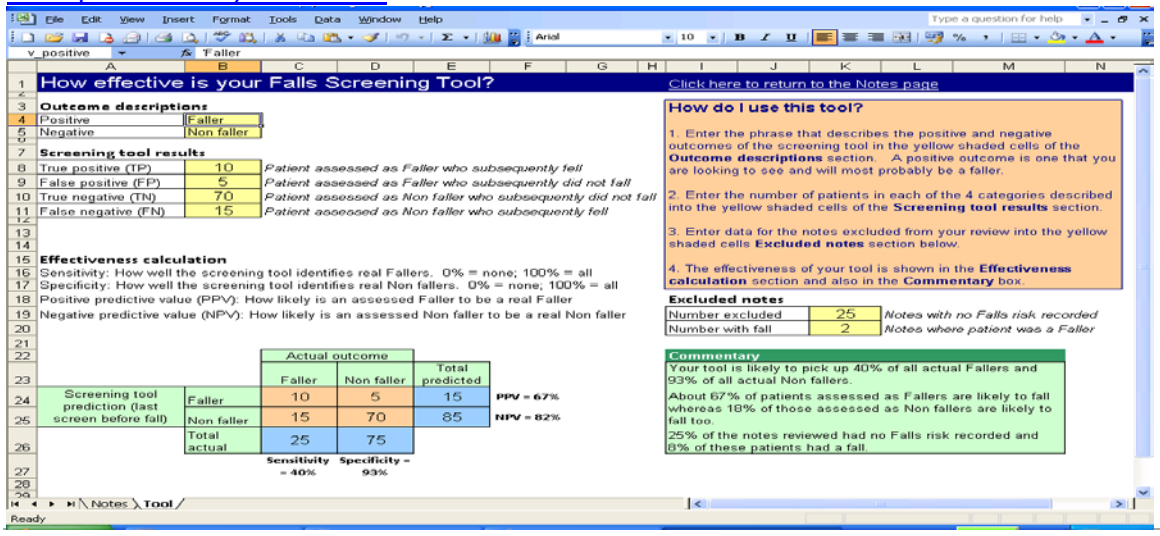
Appendix 1

Assessing the validity of any locally used numerical risk score

Falls risk scores need to be tested in real life, based on how ward staff usually complete them, rather than on how they are completed by specialists. They also need to be tested on how well they work for your service user population, regardless of how they worked in an original research study, where the service user group could be very different. NHS organisations need to check a representative sample of falls risk scores in service users' records and compare these with numbers of service users who actually fell, in a grid like the one below:

	Patients who did fall	**Patients who did not fall**
Patients predicted as being at low risk of falls	Patients in this box were incorrectly identified as low risk, and missed out on falls prevention.	Patients in this box were correctly predicted as low risk.
Patients predicted as being at high risk of falls	Patients in this box were correctly predicted as high risk, but their falls were not successfully prevented.	Some patients in this box may have had their falls successfully prevented, but high numbers here would suggest your falls risk score is over-predicting falls risk in your patients, which could be wasting resources.

To make these calculations much easier, access the electronic workbook at www.patientsafetyfirst.nhs.uk



Appendix 2

Using bedrails safely and effectively

Falls from bed in hospital make up around 20% of all falls; in England and Wales, over a single year there were around 44,000 reports of patients falling from bed. This included eleven deaths and around 90 fractured neck of femur. Bedrails are not usually appropriate for an individual who could be independently mobile without them, or for a patient with capacity who does not want them, nor for a patient with severe confusion who is mobile enough to climb over them or a patient who may be at risk of self harm. For clients who are incapable of leaving their bed without help, bedrails are unlikely to act as restraint, or restrict independence, and may reduce the risk of injury from falls.

So organisations face the challenge of supporting good clinical decision making – ensuring bedrails are used where patients would benefit, but not where they would do more harm than good. To support them in this, a range of teaching materials, audit tools, draft policy, staff information posters, and bedside decision making tools can be found to support the NPSA Safer Practice Notice *Using Bedrails Safely and Effectively* at: http://www.npsa.nhs.uk/nrls/alerts-and-directives/notices/bedrails/

Bedrails need to be well designed, correctly fitted, and regularly maintained if they are not to cause harm through patient entrapment; deaths from bedrail entrapment in hospital settings in England and Wales around once in every two years, and could probably have been avoided if MHRA advice had been followed:

- MHRA Device Bulletin DB2006(06) *The safe use of bedrails* www.mhra.gov.uk
- MHRA Device Alert 2007/009 *Bed Rails and Grab Handles* www.mhra.gov.uk

It is particularly important that trusts take corporate action to identify and remove unsafe bedrails; some are still relying on formats that require staff to measure the gaps between bedrail bars each time they use the bedrail!

Further reading:

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Appendix 3

What is appropriate footwear?

You need to set your own operational definition, but this should be about basic safe footwear - if you manage to ensure nearly all of your patients have this, you could then aim higher. There is no definitive research on the safest type of footwear (Menz & Sherrington 2000) and different patients may have different footwear needs but there is some footwear that is clearly unsafe such as those described below. Work with the physiotherapist and occupational therapists in your falls group to determine what footwear you will consider safe and keep provisions of.

Probably unsafe are:

- bare feet;
- socks only;
- anti-embolism stockings only;
- bandages or dressings only;
- shoes or slippers which are visibly too big;
- shoes or slippers which are visibly too small;
- lace up shoes without laces, or with trailing laces;
- shoes or slippers worn with squashed backs;
- novelty slippers;
- backless shoes or slippers except for very confidently mobile patients;
- foam disposable slippers except for very confidently mobile patients; and
- high heeled shoes except for very confidently mobile patients.

You must allow for patient choice in this measure – count yes if the patient has been offered a safer alternative but refused.

Where patients are not getting out of bed at all, the measure can be counted as yes.

Appendix 4

Example of care bundle audit tool

(Sample form for auditing falls basic assessment and safety compliance)

	Asked about recent falls?	Medication reviewed?	Appropriate footwear?	ALL THREE ELEMENTS COMPLETE?
Patient 1	✓	×	✓	×
Patient 2	✓	✓	N/A	✓
Patient 3	×	×	✓	×
Patient 4	✓	×	×	×
Patient 5	✓	✓	✓	✓
Patient 6	✓	×	✓	×
Patient 7	✓	✓	✓	✓
Patient 8	×	✓	N/A	×
Patient 9	✓	✓	✓	✓
Patient 10	✓	×	✓	×
% COMPLIANT	80%	50%	90%	**40%**