Scottish Patient Safety Programme

Acute Adult

Falls

Measurement Framework

May 2023

Contents

How to use this Measurement Framework

Measures are essential to help teams to learn if the changes they are making are leading to an improvement. The measures contained in this framework will assist you and your team to measure key changes in the SPSP Acute Adult Falls change package. It is designed to be used in conjunction with the Essentials of Safe Care change package and measurement framework.

The readiness for change and prioritisation tool may help you in selecting the changes you want to make from the falls change package. This measurement framework will describe the associated measures and provide guidance on how best to collect and display the data.

A suite of measures is provided in this measurement framework and teams should decide which change concepts they wish to test and select the measures they need to guide their own improvement journey. The SPSP Acute Adult Falls driver diagram, change package and measurement plan are not exhaustive. Teams may identify change concepts that are appropriate to their local context and should seek local quality improvement support to develop alternative measures if required.

Please note there is no mandatory national reporting requirement for the process measures in this measurement framework.

NHS boards will be required to submit quarterly outcome data accompanied by a narrative submission to SPSP which can include progress made on improving clinical processes.

To learn more about measurement click on the link: The Improvement Journey - Measurement (NHS Education for Scotland)

1.1   Why measure

This measurement framework is intended to be used alongside the SPSP Acute Adult Falls Change Package to measure the impact of key changes that you want to make.

Measurement helps you to:

- Recognise the variation that exists within your system and processes.
- Work out whether your changes are making an improvement.
- Help tell your improvement story.

To learn more about measurement click on the link: Introduction to measurement for improvement (NHS Education for Scotland)

1.2   Choosing measures

An improvement project should have a small family of measures that track the progress of the project over time. These should include:

- **Outcome measures**: to tell an NHS board, site or team whether the changes it is making are helping to achieve the stated aim. For example, number of falls in your service.
- **Process measures**: to tell the team whether things that have to be done to achieve the desired outcomes are happening reliably. For example, carrying out routine checks to assess for deterioration.
- **Balancing measures**: to check for possible consequences elsewhere in the system. For example, staff experience.

To learn more about measures click on the link: Developing your measures (NHS Education for Scotland)

1.3   How to measure

When planning your data collection you will need to consider:

Collecting your data	Displaying your data
- Who will collect the data? - What data will you collect? - When will you collect the data? - How will you collect/record the data?	- What chart type you will use? - How will you share and use your data?

To learn more about data collection click on the link: Data collection (NHS Education for Scotland)

1.4   Sampling

Measuring for improvement relies on small sample sizes, often referred to as 'just enough' data to learn from. When it is not possible to access a larger amount of data, it is suggested that a random selection of 5 records per week, giving 20 records per month will gather enough data.

1.5   Presenting data

Run Charts (see example below) are an excellent way to present your data to help you to understand what is happening in your service. They are used to distinguish between random variation (variation that affects all processes, people and outcomes equally) and non-random variation, which could be due to the changes you have introduced.

The Acute Care Team will issue a toolkit for outcome measures and for process measures to NHS boards participating in the SPSP Acute Adult Collaborative.

To learn more about presenting your data in a run chart click on the link: Presenting your data (NHS Education for Scotland)

All Falls rate per 1000 OBDs
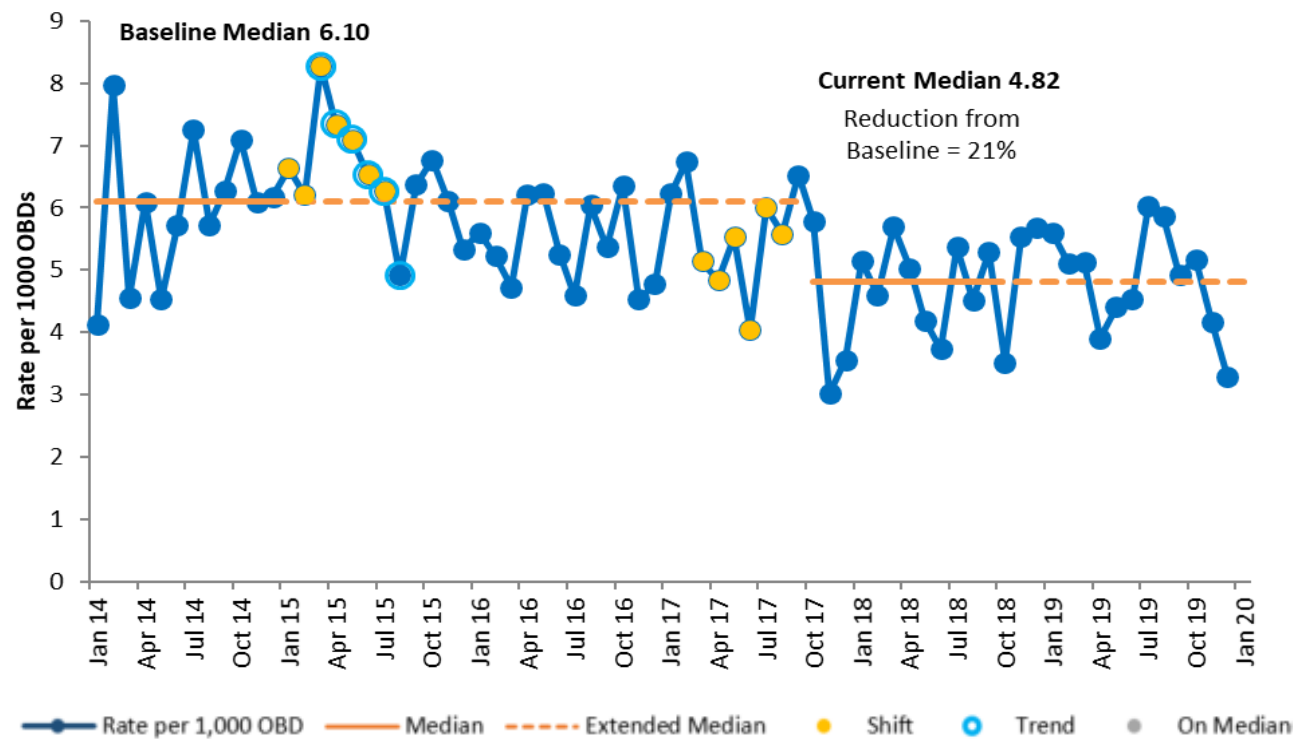
2.1 Outcome Measures

Measure Name (Measure Code)	Definition of a fall	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Inpatient Falls **FO1b**	As per NHS board incident management system **N.B. work is underway to review and agree the definition of a fall**	1. Determine the numerator – the total number of in-patient falls (excluding Out-patients, Day Cases and Emergency Departments*) for month. 2. Determine the denominator – the total number of acute occupied bed days for the same time period (excluding Out-patients, Day Cases and Emergency Departments*) Calculate the falls rate by dividing the numerator by the denominator and then multiply this figure by 1000 to give the number of falls per 1000 acute occupied bed days (OBDs). Report the numerator and denominator monthly. Provide annotations as appropriate to reflect any interventions you made during the month.	Local incident management system	Monthly data points reported quarterly	Run chart **Rare events** – data can be visualised locally as a days between

* Emergency Department (ED) attendances are not classified as inpatient episodes and do not generate occupied bed days. Please exclude falls in the ED from both the numerator and denominator of the inpatient falls and falls with harm measures. To measure falls in the ED locally as a separate measure (not required as part of the SPSP submission) the denominator would be the 'number of adult Emergency Department attendances'.

Measure Name (Measure Code)	Definition of a fall	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Inpatient Falls with Harm **FO2b**	Any instance where a fall with harm is identified. Harm will be where another secondary care intervention is necessary (steri-strip, suture, and/or management of dislocation, fracture, head injury, death), and/or a patient has fallen and received harm or injury requiring radiological investigation (x-ray, ultrasound, MRI or CT) with a confirmed harm. NB: Occurrence of a radiological investigation should not lead to an automatic categorisation of 'harm' (harm must be confirmed by the investigation). Minor harms (for example, grazes, light bruising, and small cuts) would be excluded. **Work is underway to review and agree a standard definition of a fall with harm**	1. Determine the numerator – the total number of in-patient falls with harm (as per definition, excluding Out-patients, Day Cases and Emergency Departments*) for month 2. Determine the denominator – the total number of acute occupied bed days for the same time period (excluding Out-patients, Day Cases and Emergency Departments*) Calculate the falls with harm rate by dividing the numerator by the denominator and then multiply this figure by 1000 to give the number of falls with harm per 1000 acute occupied bed days (OBDs). Report the numerator and denominator monthly. Provide annotations as appropriate to reflect any interventions you made during the month.	Local incident management system	Monthly data points reported quarterly	Run chart **Rare events** – data can be visualised locally as a days between

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2.2 Process Measures

Person centred care • Completed falls risk assessment on admission • Completed falls risk intervention plans with evidence of patient / family / carer involvement • Evidence of identified interventions delivered • Review of falls risk assessments • Completed 4AT • Completed TIME bundle	**Promote mobilisation** • Documented accurate mobility status at patient bed space • Patients up to sit in chair at lunch who are assessed as able
Multidisciplinary Team intervention and communication • Average MDT attendance at ward round or huddle • Evidence of physiotherapy and / or occupational therapy interventions delivered for patients identified as appropriate • Completed medication review on admission and following an inpatient fall	**Organisational safety culture** • Post-fall review with an intervention plan at ward level • Falls with harm investigations and evidence of shared learning with clinical teams

2.3 Person centred care

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Completed falls risk assessment on admission to clinical area as per local policy Percentage (%) of records with a falls risk assessment **FP1** **Goal**: Process reliability at 95% or greater	**Why measure?** Harm reduction relies on preliminary identification and mitigation of risks. **What to measure:** **Numerator:** Number of admissions with completed falls risk assessment on admission to clinical area as per local policy **Denominator:** Number of admission records examined **Compliance:** (Numerator / Denominator) * 100	Sample five patients weekly per ward/department or include all patients if numbers less than 20/month	Monthly sample of 20 e.g. sample 5 per week	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Completed falls risk intervention plans with evidence of patient / family / carer involvement Percentage (%) of records with a falls risk intervention plan with evidence of patient / family / carer involvement **FP2** **Goal**: Process reliability at 95% or greater	**Why measure?** Person centred care planning is a way of thinking and doing things that sees the people using health services as equal partners in planning, developing and monitoring care to make sure it meets their needs safely. Patient/family/carer involvement in care plans promotes safer care. Documenting this involvement should be done with a view to making it visible to all involved in their care. **What to measure:** **Numerator:** Number of admissions with a completed intervention plan with evidence of patient/family/carer involvement **Denominator:** Number of records examined. **Compliance:** (Numerator / Denominator) * 100	Sample five patients weekly per ward/department or include all patients if numbers less than 20/month	Monthly sample of 20 e.g. sample 5 per week	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Evidence of identified interventions delivered Percentage (%) of records with evidence of identified interventions delivered **FP3** **Goal**: Process reliability at 95% or greater	**Why measure?** Falls risk prevention requires the delivery of identified interventions specific to each individual. Documentation supports delivery of care. **What to measure:** **Numerator:** Number of patients with documented evidence that all falls care plan interventions have been delivered during inpatient stay e.g. review of interventions at patient's bed space **Denominator:** Number of discharge records examined **Compliance:** (Numerator / Denominator) * 100	Sample five patients weekly per ward/department or include all patients if numbers less than 20/month	Monthly sample of 20 e.g. sample 5 per week	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Review of falls risk assessment Percentage (%) of records with a review of falls risk assessment **FP4** **Goal**: Process reliability at 95% or greater	**Why measure?** Risk assessment should be a dynamic process that is monitored regularly to meet the changing needs of people using health services (as per local policy) **What to measure:** **Numerator:** number of patients that have evidence of falls risk review at appropriate interval (as per local policy) **Denominator:** number of discharge records examined **Compliance:** (Numerator / Denominator) * 100	Sample 20 patients (5 per week) with a length of stay greater than one week (or as per local policy)	Monthly sample of 20 e.g. sample 5 per week	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Completed 4AT Percentage (%) compliance with 4AT screening **DRP1** **Goal**: Process reliability at 95% or greater	**Why measure?** A new onset Delirium or confusion is a clinical condition that can indicate that a patient has deteriorated and is unwell. Delirium is a risk factor for falls. The 4AT tool (www.the4at.com) is designed to be used by any health professional at first contact with the patient, and at other times when delirium is suspected **What to measure:** **Numerator:** Total number of patients with a completed 4AT score as per locally defined delirium screening criteria **Denominator:** Number of records examined **Compliance:** (Numerator / Denominator) * 100	Sample of 20 patients (5 per week) who met the delirium screening criteria	Monthly sample of 20 e.g. sample 5 per week	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Completed TIME bundle Percentage (%) compliance with TIME bundle implementation within 2 hours for patients with a 4AT score of ≥ 4 **DRP2** **Goal**: Process reliability at 95% or greater	**Why measure?** The TIME bundle in conjunction with the 4AT tool is a process to aid the detection and management of the patient experiencing delirium. All patients with a 4AT score of ≥ 4 should have the TIME bundle implemented within 2 hours of trigger score. TIME bundle: • **T**hink, exclude and treat possible triggers • **I**nvestigate and intervene for possible underlying causes • **M**anagement plan initiated • **E**ngage and explore in discussion with the family **What to measure:** **Numerator:** The total number of patients with a 4AT score of ≥ 4 who have evidence of the 4 elements of the TIME bundle documented within 2 hours of the trigger score **Denominator:** The number of records examined **Compliance:** (Numerator / Denominator) * 100	Sample of patients positive 4AT	Monthly sample of 20 e.g. sample 5 per week	Run chart

2.4 Promote mobilisation

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Documented accurate mobility status at patient bed space Percentage (%) compliance with accurate mobility status documented at bed space **FP5** **Goal**: Process reliability at 95% or greater	**Why measure?** Accurate guidance of a patient's mobility status by their bed space supports safe mobilisation of patients and promotes mobility. **What to measure:** **Numerator:** Number of patients with up to date mobility status at patient's bed space **Denominator:** Number of occupied beds. **Compliance:** (Numerator / Denominator) * 100	Walk round at regular intervals	Monthly	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Patients up to sit in chair at lunch who are assessed as able Percentage (%) compliance with patients up to sit at lunch who are assessed as able **FP6** **Goal**: Process reliability at 95% or greater	**Why measure?** A spot-check of actual mobility across the ward will give an indication of how effectively mobility is being promoted. **What to measure:** **Numerator:** Number of patients up to sit for lunch **Denominator:** Number of patients assessed as able to sit up for lunch **Compliance:** (Numerator / Denominator) * 100	Walk round at regular intervals	Monthly	Run chart

2.5 Multidisciplinary Team intervention and communication

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Average MDT attendance at ward round / huddle **FP7** **Goal**: Process reliability at 95% or greater	**Why measure?** Ward huddles are a way of involving the wider team in safety issues on the ward. MDT involvement will allow a breadth of safety issues to be discussed. **What to measure:** **Numerator:** Number of disciplines at ward round / huddle **Denominator:** Optimum number of disciplines represented (as agreed locally) who could attend ward round / huddle. For example, if it was agreed that the disciplines at the ward round / huddle should be: • physiotherapist • occupational therapist • nurse • dietitian • geriatrician then the denominator would be 5. **Compliance:** (Numerator / Denominator) * 100	Head count per discipline at a ward round / huddle	Weekly	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Evidence of physiotherapy and / or occupational therapy interventions delivered for patients identified as appropriate i.e. identified as at risk of falls Percentage (%) of records with evidence of physiotherapy and / or occupational therapy interventions delivered **FP8** **Goal**: Process reliability at 95% or greater	**Why measure?** Falls risk prevention requires the delivery of identified interventions specific to each individual from all appropriate members of the multidisciplinary team. **How to measure:** **Numerator:** Number of patients identified as at risk of falls who have evidence of physiotherapy / occupational therapy interventions delivered when appropriate i.e. identified as at risk of falls **Denominator:** Total number of patients identified as at risk of falls **Compliance:** (Numerator / Denominator) * 100	Sample of patients identified as at risk of falls	Monthly sample of 20 e.g. sample 5 per week	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Completed medication review on admission to clinical area and following an inpatient fall Percentage (%) of records with completed medication review on admission to clinical area and following an inpatient fall **FP9** **Goal**: Process reliability at 95% or greater	**Why measure?** Patients who are taking 5 or more medications have a significantly increased risk of falls. Some medications are known to increase the risk of falls. **How to measure:** **Numerator:** Number of admissions with completed medication review on admission to clinical area and following an inpatient fall **Denominator:** Number of records examined **Compliance:** (Numerator / Denominator) * 100	Sample 20 patients each month (5 per week)	Monthly	Run chart

2.6 Organisational safety culture

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Post-fall review with an intervention plan at ward level within 24 hours of the fall Percentage (%) of records with completed post-fall review within 24 hours with an intervention plan **FP10** **Goal**: Process reliability at 95% or greater	**Why measure?** To identify any falls risks and assess for any injury related to the fall. Promotes shared learning. **How to measure:** **Numerator:** Number of post-fall reviews completed within 24 hours with an intervention plan **Denominator:** Number of falls (as defined by NHS board incident management system) **Compliance:** (Numerator / Denominator) * 100	Local incident management system	Monthly	Run chart

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Falls with harm investigations with evidence of shared learning with clinical teams % compliance of falls with harm investigations with evidence of shared learning **FP11**	**Why measure?** Supports the shared learning with clinical staff delivering care to patients. Evidence of organisational learning **How to measure:** **Numerator:** Number of falls with harm investigations with evidence of shared learning with clinical teams **Denominator:** Number of falls with harm (as defined by NHS board incident management system) **Compliance:** (Numerator / Denominator) * 100	Local incident management system	Monthly	Run chart

2.7 Balancing Measures

Concept/ Measure Name (Measure Code)	What/ How to measure	Data Source	Frequency of Reporting	Chart Type
Patient / family/carer experience **FB1** **Goal**: Process reliability at 95% or greater	Patient / family carer experience of falls prevention and safety within the clinical environment Refer to Essentials of Safe Care driver diagram, change package and measurement plan	Patient medical and nursing notes, care opinion, local service user feedback mechanisms, informal and formal complaint processes	N/A	Patient/ family/ carer stories
Staff experience **FB2** **Goal**: Process reliability at 95% or greater	Staff experience and perceptions of safety within their clinical environment Refer to Essentials of Safe Care driver diagram, change package and measurement plan	Local safety climate processes and tools	N/A	N/A