

Scottish Patient Safety Programme

Acute Adult

Pressure Ulcers

Measurement Framework

July 2023

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Contents

1. How to use this Measurement Framework	2
1.1 Why measure	3
1.2 Choosing Measures	3
1.3 How to measure	4
1.4 Sampling	4
1.5 Presenting data	5
2. Acute Adult Pressure Ulcer Measures	
2.1 Outcome Measures	6
2.2 Process Measures	9-18
2.3 Balancing Measures	19-20

1. 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 Pressure Ulcers change package. It is designed to be used in conjunction with the Essentials of Safe Care change package and measurement framework.

This measurement framework contains a suite of measures 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 Pressure Ulcers 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.

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 Pressure Ulcers 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

This measurement framework contains a selection of measures for assessing and improving safety. This measurement framework can be used alongside other measurement systems, for example, Essentials of Safe Care, Excellence in Care, incident reporting systems and assurance reporting systems.

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 the 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
<ul style="list-style-type: none">• Who will collect the data?• What data will you collect?• When will you collect the data?• How will you collect/record the data?	<ul style="list-style-type: none">• 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 \(NHS Education for Scotland\)](#)

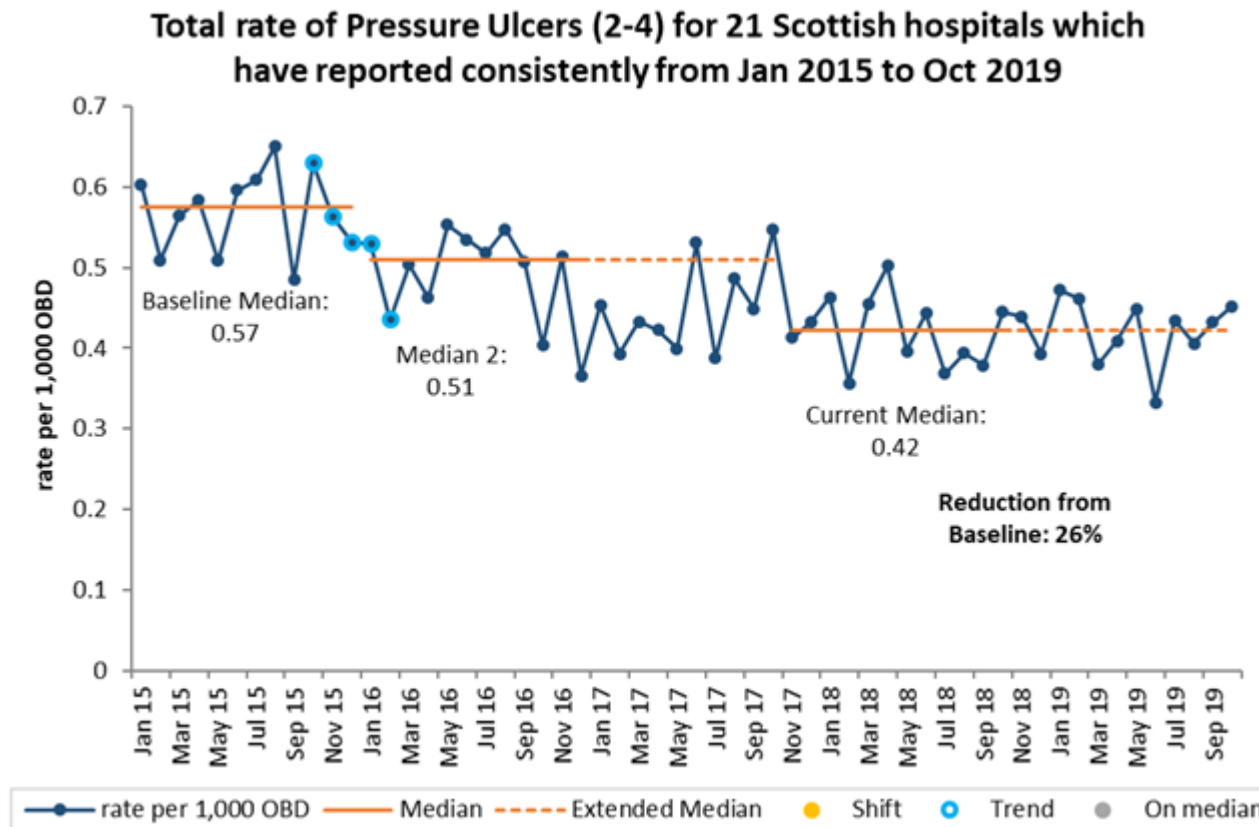
1.4 Sampling

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. A toolkit for generating run charts has been included with this framework.

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



2. Acute Adult Pressure Ulcer Measures

2.1 Outcome Measures

Concept/ Measure Name	What/ How to measure	Inclusion and Exclusion Criteria	Recording and Reporting
<p>Pressure Ulcer Rate</p> <p>Goal:</p> <p>% reduction in pressure ulcers by [date]</p> <p>Identifier:</p> <p>PU01</p>	<p>Operational definition:</p> <p>This measure will show the rate of new pressure ulcers developed in the care setting for the month.</p> <p>Numerator:</p> <p>The total number of newly developed pressure ulcers identified in the care setting in the past month.</p> <p>Denominator:</p> <p>The total number of acute occupied beds in the care setting for the month</p> <p>Calculate the pressure ulcer rate per 1000 OBD: (Numerator/Denominator) *1000</p>	<p>Inclusion criteria:</p> <p>All newly developed pressure ulcers of grade 2 or above including: combination lesions, device related, mucosal, suspected deep tissue injury, and ungradable, acquired after admission/transfer in a care setting.</p> <p>Exclusion criteria:</p> <p>Pressure ulcers present of day of admission / transfer in a healthcare setting and those where damage began prior to admission; Grade 1 pressure ulcers (as their presentation may not be a clear pressure ulcer). Skin damage from moisture, for example, incontinence dermatitis.</p>	<p>Recording:</p> <p>Each event should be entered on to incident management systems (or equivalent system).</p> <p>Reporting:</p> <p>Report the numerator and denominator monthly. Provide annotations as appropriate to reflect any interventions you made during the month.</p> <p>Frequency of Reporting:</p> <p>Monthly</p> <p>Chart Type:</p> <p>Run chart</p>

Concept/ Measure Name	What/ How to measure	Inclusion and Exclusion Criteria	Recording and Reporting
<p>Pressure Ulcer Days Between</p> <p>Goal: 0 or 300 days between</p> <p>Identifier:</p> <p>PUO1DB</p>	<p>Operational Definition:</p> <p>This measure is a count of the number of days that have gone by with no new pressure ulcers identified.</p> <p>Every time a new pressure ulcer occurs in the care setting, the count is started over again.</p> <p>The longer the run of success (days with no new pressure ulcers occurring) the better the outcome.</p>	<p>Inclusion criteria:</p> <p>All newly developed pressure ulcers of grade 2 or above including: Combination lesions, device related, mucosal, suspected deep tissue injury, and ungradable, acquired after admission/transfer in a care setting.</p> <p>Exclusion criteria:</p> <p>Pressure ulcers present of day of admission / transfer in a healthcare setting and those where damage began prior to admission; Grade 1 pressure ulcers (as their presentation may not be a clear pressure ulcer); Skin damage from moisture, for example, incontinence dermatitis.</p>	<p>Recording:</p> <p>Data collected in Excel workbook available from Healthcare Improvement Scotland</p> <p>Record every date that a new pressure ulcer is identified. If two are identified on the same date, record the date twice.</p> <p>Frequency of Reporting:</p> <p>Monthly</p> <p>Chart Type:</p> <p>Run chart</p>

2.2 Process Measures

Concept/ Measure Name	What/ How to measure	Inclusion and Exclusion Criteria	Data Recording and Reporting
<p>Percentage (%) of records with a pressure ulcer prevention risk assessment</p> <p>Goal: Process reliability at 95% or greater</p> <p>Identifier: PUP1</p>	<p>Operational definition: The number of people reviewed, who have a fully completed risk assessment within 8 hours of arriving at the care setting.</p> <p>Numerator: The number of reviewed records that have a fully completed risk assessment within 8 hours of arriving at the care setting</p> <p>Denominator: The number of records reviewed per week (at least 5 records should be reviewed to create a valid sampling measure)</p> <p>Percentage compliance: (Numerator / Denominator) * 100</p>	<p>Inclusion criteria: All people admitted to the care setting/area during the month</p> <p>Exclusion criteria: None</p>	<p>Primary data source: care notes / patient records / person's care record</p> <p>Recording: Data collected in Excel workbook available from Healthcare Improvement Scotland</p> <p>Frequency of Reporting: Monthly</p> <p>Chart Type: Aggregate data</p>

Concept/ Measure Name	What/ How to measure	Inclusion and Exclusion Criteria	Recording and Reporting
<p>Percentage (%) compliance with at least daily repeat assessments, with documented evidence (for every person)</p> <p>Goal: Process reliability at 95% or greater</p> <p>Identifier:</p> <p>PUP2</p>	<p>Operational definition:</p> <p>Compliance with at least daily repeat assessments, with documented evidence</p> <p>Numerator: The number of reviewed records with evidence of at least daily repeat assessments</p> <p>Denominator: The number of records reviewed of people who have, or are at risk of developing a pressure ulcer (at least 5 records should be reviewed to create a valid sampling measure)</p> <p>Percentage compliance: (Numerator / Denominator) * 100</p> <p>Rotate the days of the week and shifts within a day. On the randomly selected day, a random sample of five people should be audited for evidence of complete risk assessment (this can include the Scottish PPURA tool).</p>	<p>Inclusion criteria:</p> <p>All newly developed pressure ulcers of grade 2 or above including: combination lesions, device related, mucosal, suspected deep tissue injury, and ungradable, acquired after admission/transfer in a care setting.</p> <p>Exclusion criteria:</p> <p>Pressure ulcers present of day of admission / transfer in a healthcare setting and those where damage began prior to admission; Grade 1 pressure ulcers (as their presentation may not be a clear pressure ulcer); Skin damage from moisture, for example, incontinence dermatitis.</p>	<p>Primary data source:</p> <p>care notes / patient records / person's care record</p> <p>Recording:</p> <p>Data collected in Excel workbook available from Healthcare Improvement Scotland</p> <p>Frequency of Reporting:</p> <p>Monthly</p> <p>Chart Type:</p> <p>Aggregate data</p>

Concept/ Measure Name	What/ How to measure	Inclusion and Exclusion Criteria	Recording and Reporting
<p>Percent compliance with all elements of a locally agreed, evidence-based care bundle for people identified as at risk of developing a pressure ulcer or who have a pressure ulcer.</p> <p>Goal: Process reliability at 95% or greater</p> <p>Identifier:</p> <p>PUP3</p>	<p>Operational definition:</p> <p>Compliance with all elements of a locally agreed evidence-based care bundle.</p> <p>Numerator: The total number of people assessed as at risk of developing a pressure ulcer or who have a pressure ulcer where evidence-based care bundle has been completed.</p> <p>Denominator: the total number of people with a Pressure ulcer or at risk of developing a pressure ulcer or who have a pressure ulcer</p> <p>Percentage compliance: (Numerator / Denominator) * 100</p>	<p>Primary data source:</p> <p>Rotate the days of the week and shifts within a day. On the randomly selected day, all people assessed as at risk of developing or who have a pressure ulcer should be examined for evidence of SSKIN bundle compliance.</p> <p>If measuring on a random day include every person assessed as at risk of developing a pressure ulcer or who have a pressure ulcer. If, however, there is a high volume of people who are assessed as at risk, you could select a random sample of five people weekly on the day you select.</p> <p>Note: if a person is not eligible for one of the bundle elements for medical reasons and that exclusion is documented, that person is considered compliant for that element of the bundle.</p>	<p>Primary data source:</p> <p>care notes / patient records / person's care record</p> <p>Recording:</p> <p>Data collected in Excel workbook available from Healthcare Improvement Scotland</p> <p>Frequency of Reporting:</p> <p>Monthly</p> <p>Chart Type:</p> <p>Aggregate data</p>

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Please contact our Scottish Patient Safety Programme mailbox his.acutecare@nhs.scot

Healthcare Improvement Scotland
Scottish Health Technologies Group

Edinburgh Office
Gyle Square
1 South Gyle Crescent
Edinburgh
EH12 9EB

Glasgow Office
Delta House
50 West Nile Street
Glasgow
G1 2NP

0131 623 4300

0141 225 6999

www.healthcareimprovementscotland.org