Highlights of the Scottish Patient Safety Programme National Conference – Driving Improvements in Patient Safety

November 2014
Foreword

The Scottish Patient Safety Programme is a unique national initiative led by Healthcare Improvement Scotland and delivered in partnership with 15 NHS boards across Scotland. It aims to improve the safety and reliability of healthcare and reduce harm, whenever care is delivered. From an initial focus on acute hospitals, our work now includes safety improvement programmes for the following areas:

- Acute Adult
- Maternity and Children
- Mental Health
- Primary Care

On 11–12 November, we held a national conference ‘Driving Improvements in Patient Safety’. This was the first time that we’ve brought together teams from every NHS board in Scotland across all four safety programmes and was attended by 862 delegates. As well as attendees from across Scotland, we were also joined by representatives from England, Northern Ireland, Wales, Denmark, Norway, The Faroe Islands and the USA. It provided a unique opportunity to reflect on how far we’ve come on our safety journey in Scotland, as well as a forum for sharing ideas and learning on how we can do even better.

The importance of this work was brought home by the opening speaker Mrs Ella Brown, whose father fell during a hospital stay and died. The enormous impact on Ella and her family, the staff involved and the learning by the organisation, NHS Fife, was shared and set the scene for the two days with Ella’s father central in people’s thoughts throughout.

This report summarises the key messages that were shared by Professor Jason Leitch and Joanne Matthews in their joint plenary outlining the progress of the safety programme to date. It highlights just some of the excellent work that has been going on across NHSScotland and the value of a programme that engages all levels of the workforce in the NHS in Scotland.

Angiolina Foster
Chief Executive
Healthcare Improvement Scotland
History

The Scottish Patient Safety Programme (SPSP) was launched in January 2008 to reduce avoidable harm in NHSScotland and transform the safety of acute care for patients.

It is the world’s first national healthcare safety improvement programme and supports frontline staff to use improvement methodology to reliably implement changes which have been shown to improve the safety of healthcare.

Central to the Programme is that the improvement work is led by the staff who are directly involved in caring for patients. Frontline teams monitor the impact of the improvements they are making through the collection of real-time data at individual unit level. The work is dependent on the full participation of NHS boards and staff and this has been the key to the success of the work to date.

The Programme started in 2008 in our acute hospitals and has now expanded across the whole of NHSScotland: the Paediatric programme was introduced in 2010, the Mental Health Programme was launched in 2012, closely followed by Primary Care and Maternity and Children in March 2013.

The Programme has a range of aims including:

- a reduction of the Hospital Standardised Mortality Ratio (HSMR) by 20%
- ensuring 95% of patients receiving care are free from harms such as pressure ulcers, falls, cardiac arrest and catheter acquired infections
- reducing avoidable harm in women and babies by 30%
- 95% of primary care clinical teams will be developing their safety culture and achieving reliability in three high risk areas, and
- reducing rates of violence, aggression, restraint and self harm on mental health inpatient units.

In September 2013, Scottish Government wrote to NHS boards (Chief Executives Letter CEL 19) to set out expectations for the universal implementation of 10 Patient Safety Essentials to be delivered to all patients who might benefit. NHS boards have been asked to ensure that staff are supported to deliver these measures reliably and consistently for every patient, every time.

---

Where are we now?

Throughout the duration of the Programme, we’ve seen frontline teams delivering real improvements to patient care. As part of a broader Quality Improvement strategy for NHSScotland, SPSP has either delivered or contributed to the results that follow.

Today we are able to report:

• 25.5% reduction in surgical mortality
• 15.9% reduction in Hospital Standardised Mortality Ratio
• *Clostridium Difficile* rates in over 65s have fallen by 80%
• MRSA cases have fallen by 89%
• 300,000 surgical pauses have been recorded since 2008
• 10,000 pauses are now happening per month
• 65,000 pre-operative surgical briefings - that’s 2,000 briefings per month
• Over 205,000 ward safety briefings have been recorded
• 1,700 leadership safety walk rounds conducted since 2008
Hospital Standardised Mortality Ratio

The Hospital Standardised Mortality Ratio (HSMR) is a way of measuring mortality rates in acute hospitals where the crude mortality data are adjusted to take account of some of the factors known to affect the underlying risk of death when a patient is admitted to hospital, such as age and primary diagnosis.

Scotland’s HSMR has decreased by 15.9% between the quarter ending December 2007 to the quarter ending June 2014. Thirty hospitals participating in the Programme have shown a reduction in HSMR since the quarter ending December 2007. Fourteen of these hospitals had a reduction in excess of 15%, with seven showing a reduction in excess of 20%.

Chart One: Standardised Mortality Ratios for deaths within 30 days of admission (with regression line), Scotland, October - December 2006 to January – June 2014

Source: ISD Scotland

2 Source: www.isdscotland.org/Health-Topics/Quality-Indicators/HSMR
Organisational priorities

Part of the focus of SPSP is on creating a culture where a continuous focus on safety is just the way things are done around here. This means creating the conditions on a day to day basis which support staff to deliver safe care to every patient, every time.

Executive Director walk rounds, where Executive Board Members meet with staff locally to look at ways of doing things better and safer, have proved to be very popular and have led to many simple, but effective improvements within wards and clinical areas. Since the start of the Programme 1,700 such walk rounds have been recorded across NHSScotland. In practice, many more than this will have taken place.

Hospital huddles are a daily meeting of staff from across the hospital to plan the day, identify risks and challenges and work collectively and collaboratively to deliver the best care possible. The hospital safety huddle has been successfully implemented in all three Scottish paediatric hospitals and is being implemented in a growing number of acute adult hospitals, with NHS Lothian and NHS Ayrshire & Arran introducing this fundamentally important team activity. An objective of SPSP is to support the spread of this to all acute hospital sites in Scotland.

Acute Care Programme

Outcomes for a number of the Patient Safety Essentials are reflected in the Annual Scottish Intensive Care HAI Prevalence\(^3\) Report published by Health Protection Scotland and the Scottish Intensive Care Society Audit Group. Data from January to December 2013 showed the lowest rates since reporting commenced in 2010 for Ventilator Associated Pneumonia (VAP), Blood Stream Infections (BSI) and Catheter Related Blood Stream Infections (CR-BSI). The rates for VAP and BSI are at the lower end of the range of those seen across the rest of Europe.

We’ve also seen widespread implementation of the surgical brief and pause (also known as the World Health Organization surgical safety checklist), with an 25.5% reduction in surgical mortality between 2008–2009 and 2013–2014.

---

The Scottish approach has been commended by the leading international expert in the field.

“I’m an advocate of check lists; it’s a simple idea... It’s like a huddle before everybody states the operation. You make sure that not only you’ve got the right patient and that the blood is ready, but that the team is ready and has discussed what are the special issues of this patient. Scotland has done a remarkable job in the last three years implementing this...by saying look let’s not make it just a law, let’s figure out how to make this the basic culture of how we always manage operations, and that’s been one of the things that’s transformed things there.”

Atul Gawande M.D., M.P.H
Professor, Department of Health Policy and Management at Harvard School of Public Health and Professor, Department of Surgery at Harvard Medical School
Sepsis and venous thromboembolism
During 2013–2014, the Programme continued to show evidence of improvements in the safety of care with demonstrable improvements in reliability for the Sepsis 6 treatment package, (including antibiotics within one hour of sepsis diagnosis) and venous thromboembolism (VTE) risk assessments achieved across many NHS boards.

Chart Three: % Sepsis Six treatment package delivered within 1 hour

Chart Four: % Reliable venous thromboembolism risk assessment
**Recognition and management of deteriorating patients**

Work has been undertaken to provide better and integrated reliable anticipation, recognition and person-centred responses to deteriorating patients across the continuity of care from primary and community settings to hospital. Data from NHS boards show a signal towards reduction of cardiac arrests amongst participating NHS boards.

**Chart Five: Cardiac arrest rate for seven NHS boards (2012–2014)**

Cardiac arrests are one of four harms (the others being falls with harm, pressure ulcers, and catheter associated urinary tract infections (CAUTI)) included in the Scottish Patient Safety Indicator (SPSI). Hospitals are working towards an aim of 95% of patients being free from all four harms with clinical teams working to improve key processes to prevent these avoidable harms.

**Healthcare associated infections**

There has been a significant reduction in levels of healthcare associated infection (HAI). Rates of *Clostridium difficile* amongst those aged 65 and over fell by 8% between 2012–2013 and 2013–2014, contributing to a 78% decrease overall since 2007–2008.

---

4 Health Protection Scotland: *Clostridium difficile* Quarterly Report
Driving Improvements in Patient Safety

Chart Six: Clostridium difficile rates amongst patients aged 65+ per 1,000 occupied bed days, year ending March 2008 to year ending March 2014

Rates of MRSA fell by 16% between 2012–2013 and 2013–2014, again contributing to an overall fall of 81% since 2007–2008\(^5\).

Maternity and Children Programme

Since its launch, there has been a 125% increase in the number of pregnant women offered carbon monoxide monitoring. This test can help pregnant women to understand the dangers of smoking and the potential to cause harm to them and their unborn baby. This increased understanding can result in mothers seeking help to reduce or stop smoking.

Sepsis is not only a serious issue for adults, but patients of all ages. Within the Maternity and Children Programme, a standardised assessment tool for the management of pregnant women has been introduced across Scotland. Across the paediatric community, this standardisation has gone further to include the treatment and ongoing management of children with sepsis with the introduction of a National Paediatric Sepsis 6 guide.

---

\(^5\) Health Protection Scotland: SAB Quarterly Report
Mental Health Programme

Work in the Mental Health Programme is focused on reducing levels of harm in adult psychiatric inpatient units and includes the development and implementation of the Patient Safety Climate Tool, a Scottish innovation that is the first in the world, leading the way in person-centred, safe delivery of care. Through the facilitation of a number of third sector organisations, over 300 patients across Scotland have had the opportunity to participate in this survey to date. The results are then used to inform the improvement work locally.

“The Patient Safety Climate Tool will give patients the chance to express their feelings and concerns about their safety while on a ward. This information will then allow services to make any improvements needed, resulting in a better patient experience of hospital care.”

Gordon Johnstone
Director of Voices Of eXperience

Primary Care Programme

The SPSP has developed a range of tools and resources to support those working within Primary Care to improve safety and reduce harm.

During 2013–2014, 90% of GP practices completed a safety climate survey to understand and improve the key factors affecting their safety culture.

GP practices are also being supported to improve processes for prescribing and monitoring of high risk medications, often an area of harm experienced by patients.

To date, 819 practices across Scotland have introduced care bundles with 83% monitoring at least one bundle in areas such as warfarin and disease modifying anti-rheumatic drugs.

Funding was recently secured from the Health Foundation to explore the contribution that pharmacists can make to delivering safer care in community pharmacy and general practice settings. This expansion of the Primary Care Programme will be launched on 25 November 2014.

Capacity and Capability for Quality Improvement

The Scottish Patient Safety Fellowship was introduced to develop and strengthen clinical leadership and improvement capability to support the implementation of the SPSP.

A total of 105 fellows have now been trained and the 7th cohort have recently commenced their fellowship programme with participants from Scotland, The Republic of Ireland, Northern Ireland, England, Denmark and Norway.

NHS Education for Scotland (NES) now leads the delivery of the fellowship programme and also supports the Improvement Advisor programme which was also delivered through SPSP and has built improvement capacity and capability in over 100 clinicians and managers across Scotland.
Summary

Sometimes it’s hard to see what’s been delivered when you’ve been so close to the Safety Programme for the past six years, but last week’s national conference: ‘Driving Improvements in Patient Safety’, allowed us to take time to reflect on the significant progress we have made to date.

This report highlights just some of the achievements that SPSP has delivered or contributed to. Over the two days we heard many more examples of improvements being delivered at NHS board, ward, team and practice level. We will shortly be adding the conference’s resources to our website, including copies of all the presentations given.

However, we are not complacent. The ambition to make all care - wherever it is delivered - as safe as possible, is a constant journey.

Don Berwick has greatly encouraged us to keep going, sustaining what we have achieved and what we must achieve:

“In international perspective, Scotland has set the benchmark in recent years for complete and capable systemic approaches to health care improvement at large scale. Its ambition, constancy, and (in many well-document respects) results in improving the safety and quality of care at a national level are second to none. Improvement is a continual journey - new challenges will always arise - but Scotland’s track record and history of leadership commitment gives me confidence that it is and will remain a model for others.”

Don Berwick
Founder and former president of the Institute for Healthcare Improvement