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British Journal of Diabetes & Vascular Disease 2010 10: 98
DOI: 10.1177/1474651409361564

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Quality and safety in NHS Scotland

KEVIN D ROONEY, JASON LEITCH

Abstract

If the 1990s was the decade of evidence-based medicine the following decade has seen a gradual move towards evidence-based care delivery. The translation of discovery research into actual improvements in care is a challenging transition. Quality improvement techniques developed in industry are an attempt to bridge this gap. Unprecedented improvements in the safety of air travel, oil exploration and nuclear power have occurred because of cultural change after major disasters. In contrast healthcare deals with life and death every day. The quality improvement movement has now reached healthcare. NHS Scotland has a long history of innovation in quality and safety. The most recent is the Scottish Patient Safety Programme, an initiative designed to reduce acute hospital mortality by 15% and adverse events by 30%. NHS Scotland is launching a Quality Strategy to lay the foundations for further improvements in safety, clinical effectiveness and patient centredness. Br J Diabetes Vasc Dis 2010; 10:98–100.

Key words: adverse events, NHS Scotland, quality improvement, safety

Introduction

On Tony Blair’s last day as Prime Minister he was asked by a BBC journalist what he thought his job was. In reflective mood he said ‘I manage constant change’. As it is with prime ministers so it is with all of us.

Don Berwick, the President and CEO of the IHI, has said that all healthcare professionals have two jobs – firstly to deliver the best care they can and secondly to constantly improve the care they deliver and the experience for patients and carers. This may sound intuitive but it is actually very difficult. We have a lot to do. A large study from the USA reports that the ‘defect rate’ in the technical quality of health care is 45%.1 This challenge has led to a worldwide movement in healthcare often called ‘quality improvement’.

There are many examples of healthcare systems moving beyond evidence-based medicine to evidence-based care delivery. Taking the discovery and implementing it, the 100,000 lives campaign in the USA led by IHI is such an example. IHI took evidence-based interventions and used innovative execution models to spread them throughout US hospitals. The results were saved lives, a new enthusiasm for healthcare improvement and a network of hospitals equipped to continually improve their care.2

The Safer Patients Initiative is another excellent example. It was a partnership between IHI and The Health Foundation and took four healthcare systems – one in each of the four countries of the UK – and used IHI’s improvement methodology to achieve unprecedented change in patient safety.

The care of patients with chronic disease (including diabetes) is a significant challenge for any physician and healthcare system. Variations in hospital and primary care practice can exist resulting in a gap between recommended diabetes care and the care that patients actually receive. There is well-recognised evidence that meticulous control of blood glucose, blood pressure and lipids is highly effective in reducing diabetes complications.3 In the USA, Intermountain Healthcare has made significant improvements in the care of patients with diabetes by concentrating on these three areas.4 Through the use of clinical support, including checklists, provider and patient education and a diabetes patient registry, Intermountain Healthcare has ‘made it easier to do the right thing’ when it comes to patient care.

NHS Scotland has a long history of working in safety and quality. Examples such as the Scottish Audit of Surgical Mortality and the Scottish Intercollegiate Guidelines Network are internationally recognised. The long-term conditions collaborative, led by the Improvement and Support Team in the Scottish Government Health Directorate has used similar quality improvement models in chronic care with great success.

The most recent initiative to attempt to improve the quality of healthcare delivery in Scotland is the SPSP.
Scottish Patient Safety Programme

NHS Scotland is the first health service in the world to adopt a systematic, nationwide approach to improving patient safety. This brings together NHS Scotland, The Scottish Government, IHI, NHS QIS, professional bodies and patient representatives in a coalition designed to significantly reduce adverse events and improve patient safety.

The SPSP is the first major work stream of the SPSA. Its key objective is to dramatically improve the safety of hospital care across the country. This is achieved by using evidence-based tools and techniques in defined areas of clinical practice. The aim is to improve the reliability and safety of everyday healthcare systems and processes. Real time data are gathered unit by unit and the frontline staff caring directly for patients lead the work that is required to achieve the aims of the programme. Since January 2008 all acute hospitals across the country have been taking part in the SPSP.

The development of the SPSA links NHS Scotland to the range of organisations which seeks to secure and enhance the safety and quality of services provided to patients in NHS Scotland; and, at the same time, improve patient experience. While acute care is the starting point, the overall approach reflects the totality of the patient journey and recognises that care will take place in a range of settings, with primary and community-based care becoming increasingly prominent in terms of the delivery of complex packages of care. The SPSA has plans to broaden the approach over the next few years to include paediatric hospitals, community hospitals, mental health and primary care.

This approach reflects an evidence base, which suggests that one in 10 patients admitted to Scottish NHS hospitals will be unintentionally harmed and that around 50% of these events could have been avoided if lessons from previous incidents had been learned. A National Audit Office report published in November 2005 estimated that in the UK patient safety incidents cost the NHS an estimated £2 billion a year in extra bed days alone. The key objectives are to:

- reduce healthcare-associated infection
- reduce adverse surgical incidents
- reduce adverse drug events
- improve critical care outcomes
- improve the organisational and leadership culture on safety.

The high level aims of the programme are that by 2011 there will be evidence of a 15% reduction in mortality; and a 30% reduction in adverse events.

These key aims are intended to be used to facilitate and drive improvement, rather than as a basis for measurement for accountability. An important part of the strategic approach is that these key aims are owned by those participating in the SPSP and that the work done by frontline teams remains focused on improvements over time against their own baselines. The SPSP provides the support, the methodology for improvement, and analysis and reporting of the data generated as a result of the ‘small tests of change’ instituted by each frontline clinical team. Good quality data will be fundamental to the credibility and sustainability of the programme. In addition to the work being undertaken by NHS QIS and IHI further work is underway with Information Services Division Scotland to ensure a robust and sustainable measurement system is in place that will give consistent results, including work on a case mix adjusted mortality statistic for Scotland.

There are five workstreams within the programme: critical care, general ward, theatres, medicines management and leadership. Each has specific interventions, aims and measures. Examples of some of the aims include:

- the abolition of, or 300 days between, ventilator-associated pneumonias
- the abolition of, or 300 days between, central venous catheter related-blood stream infections
- a 30% reduction in Staphylococcus aureus bacteraemias
- a 30% reduction in cardiac arrest calls.

The early results

As of October 2010 all the boards in NHS Scotland are showing improvement. Eight of the 15 boards have demonstrated improvement (assessed by statistical analysis of their data) in all five workstreams. Examples of improvement include:

- an intensive care unit reducing length of stay by one and a half days
- a number of intensive care units going longer than a year since their last central line infection
- a hospital reporting a dramatic reduction in crash calls
- a board showing a > 50% reduction in Clostridium difficile infections in all wards
- a medical receiving unit achieving > 95% reliability for medicines reconciliation
- hand washing improving in all hospitals
- theatre briefings occurring in every hospital
- safety briefings occurring in wards in every hospital.

Many challenges lie ahead for the teams working on the programme in the boards. Integration with other streams of work is a constant challenge. Moving form enthusiastic prototype wards to more challenging environments will be hard. However, the initial momentum is very encouraging. SPSP is one of the reasons the government in Scotland has decided to launch a Quality Strategy.

The NHS Scotland Quality Strategy

The aim of the Quality Strategy is to make Scotland one of the leading countries in the world in healthcare quality. The aim is pitched at a high level, but the means to achieving it will be built from the ground up. What will make Scotland a world leader will be the combined effect of millions of individual care encounters that are consistently person-centred, clinically effective and safe, for every person involved in the encounter, every time.
Patients in Scotland are no different from those in the rest of the world and they have made their desires very clear:

- caring and compassionate staff and services
- clear communication and explanation about conditions and treatment
- effective collaboration between clinicians, patients and others
- a clean and safe care environment
- continuity of care and good access to care
- clinical excellence.

Everybody delivering healthcare services in Scotland is motivated above all by the quality of service they provide in partnership with their colleagues, with patients and their families.

The Quality Strategy represents a unique and important opportunity to make the NHS even better, for everyone.

**Conclusion**

The NHS is rightly the envy of much of the world. It is a unique healthcare system designed to deliver population and individual healthcare. However, it has the same challenges as other healthcare systems around the world – rising costs, increasing expectations, improving technologies, increasing complexity. The NHS is safe by international standards but could be safer. The SPSP is attempting to make healthcare in Scotland the safest in the world. The care delivered is of a high quality but it could be better. The Quality Strategy is a blueprint to make Scotland one of the leading countries worldwide in healthcare quality.

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**Key messages**

- NHS Scotland has adopted a systematic, nationwide approach to reduce adverse events and improve patient safety
- The nationwide approach involves a coalition of NHS Scotland, The Scottish Government, IHI, NHS QIS, professional bodies and patient representatives
- The Quality Strategy aims to make Scotland an international leader in healthcare quality

**References**