Safety and Solvency

The case for a new approach to patient safety
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Introduction

"High quality care should be as safe and effective as possible, with patients treated with compassion, dignity and respect. As well as clinical quality and safety, quality means care that is personal to each individual."

High Quality Care for All,

NHS Next Stage Review Final Report (2008)

"I simply don't believe that if there was more information about the quality of care, the scandalous failings that took place in Maidstone and Tunbridge Wells and then at Mid Staffordshire, could have gone unchallenged for so long."

Secretary of State for Health, Andrew Lansley (October 2010)

"A true information revolution takes health informatics from the back office into frontline clinical services, operational management, NHS transformation and patient empowerment."

British Computer Society (2011)

Patient safety has become so much more urgent as a concern. This can be seen through the evidence of changes which have taken place in the last 10 years:

- There was a 38% rise in hospital stays from 1999/2000 to 2009/10.

- Within this, there was a 66% rise in stays to 3.8 million for patients aged 75 or over. This has raised many risks, including falls, dehydration and confidence, to list only the most obvious. The care challenge to staff has also risen.

- Length of stay has fallen to five days on average and within these are compressed a much more complex series of diagnostics, treatments and drug therapies.

- Although survival and life expectancy have improved, there has been an increase in disability and in co-morbidity. The proportions reporting long term illness in the General Household Survey have risen from 28% in 1977 to 38% today.

- There are now systems for clinical governance and for the reporting of incidents. The only system which existed in the past was that of the confidential enquiries into maternal deaths, which began in the 1930s. There was great concern in the later 1950s after the problems with the great German surgeon Sauerbruch came to light, who had gone on operating long after he was fit to do so, but any such problems were dealt with in secret by small groups of peers or wise men. A culture of secrecy was felt to be essential for public confidence.

In summary there has been great success in reducing mortality, but this in itself has helped to increase treatment frequency and treatment risk. The health system generates risks as part of its own activities.

Against this picture of increased risk, we can point to some areas of outstanding success in reducing risk and improving quality. Often, this has been done through informatics on outcomes made readily available to peer groups, with a concurrent improvement in performance. For example:

- The patient safety and treatment quality of patients on dialysis has risen with the annual review of clinical data from every unit in the UK; and

- In-hospital mortality after surgery in England and Wales is now 4.5% for oesophageal cancer patients and 6% for stomach cancer patients. An audit between 1999 and 2002 found in-hospital mortality rates of 14% and 10%.

Surviving the new NHS landscape

In addition to changing risk profiles from longer survival and more active treatment, there are a number of changes affecting the NHS which point to the urgent requirement for a reassessment of how we manage patient safety. In essence, we need to raise local capability, not just for patient safety, but also for quality.

Trusts are under pressure to raise the quality of care for patients. Patient safety systems are in danger of becoming mini-silos concerned with the ex post reporting of clinical errors while new, separate systems to monitor quality are set up alongside. Processing different information on the same patients from multiple sources is likely to cause great confusion and make the work of health teams far more difficult.

There are new pressures to provide integrated services. With fragmentation of services has come fragmentation of information. Now the challenge is to provide integrated services (which require information about quality and safety) stretched across stages of care – from the hospital to the community and to primary care.

There is much more audit and outside scrutiny of hospital performance both by commissioners and by the Care Quality Commission (CQC). The CQC has become more probing and aggressive in its enquiries on Trusts.

There will also be comparisons of quality achieved by NHS and non-NHS providers as part of the more intense contracting process. Combined with the new funding constraints, likely to put strain on all resources, it will be vital to avoid duplication, waste and loss of credibility.

A new phase for the NHS is about to begin with much more service redesign and pressure to integrate care. In this paper we set out options for a more positive approach – not just for the recording of errors and a search for causation – but for empowering staff to get better results. It would also empower Trusts facing greater competition from NHS and non-NHS providers.

Against this background of change in the NHS, we set out the case for what we call the ex ante approach, raising staff capability for monitoring quality and safety to bring about real improvements. Patient safety has been a top-down process in which information on errors was sent up a hierarchical chain of compliance. The new approach will still involve recording of incidents, but it will also raise staff and system capability for preventive action. It points towards a more positive model – team-based problem solving rather than the highly negative blame culture which tends to surround the issue at present.

Patient Safety in Context

Over the past decade, increasing attention has been paid to patient safety – the protection of patients from unnecessary harm[1]. In 1999 the US Institute of Medicine released its seminal report 'To Err is Human', which was followed closely by the UK's 'An Organisation with a Memory'. Patient safety was now finding its place on the political map, and organisational structures and strategies were increasingly put in place to mitigate the inherent risks across the healthcare industry. While media headlines highlighted the most serious failures, more systematic attempts were made to learn from patient safety incidents and prevent them from happening again.[2]

In theory, patient safety is the foundation upon which all other aspects of quality care – effectiveness, patient centricity, timeliness, efficiency and equity – are based. **At a minimum, quality care is safe care**. In practice, while some steps have been made (although evaluation is notoriously difficult), patient safety concerns still persist. An English health and social care regulator, the Care Quality Commission, recently listed patient safety and patient safeguarding as two of its top three areas for performance improvement.[3]

Performance management in the NHS has been a topic of considerable contention in recent years. Targets, quality standards and top-down inspection and audit have become a particular focus of attention for policy makers, NHS managers, healthcare professionals and the general public alike. On the one hand, the 'administrative burden' or 'waste' of data collection has been decried. On the other, the policies of patient choice and devolved commissioning rely upon accurate and timely data to support decision making for individuals and communities on the appropriate provision of care. Similarly, comparative information, where available, is critical for accountability of quality and access.

Patient safety has not escaped this dichotomy. However, as a special report by the Health Select Committee (2008/09) noted, "Judging the overall effectiveness of patient safety policy is made difficult because of the failure...to collect adequate data...data on the incidence of harm must be systematically collected."[4] To enable healthcare staff to report incidents systematically, data reporting systems need to be simple but comprehensive, standardised but tailored to suit the particular needs and environment of different healthcare settings.

This report looks at the role data reporting systems can play in achieving patient safety standards. It also considers how organisations can enhance their patient safety culture so that issues potentially siphoned to 'compliance' become enthusiastically embedded within the efforts to deliver and track a high quality of care in general.

Rather than a punitive regime, efficient data reporting can and should support a system which allows staff to take pride in bringing about quality improvements. Integrated as part of financial management process, incident reporting can also help to improve innovation and productivity. At a time of rising demand and squeezed resources, this integrated, 'beyond compliance' approach should help to enhance the overall efficiency of resource allocation.

Data Collection and International Comparison

Between June 2009 and July 2010, 2,551 incidents were reported in England and Wales in which patients died as a result of the medical attention they received.[5] Over 5,500 incidents were reported in which people were permanently ('severely') harmed while under the care of healthcare professionals.

Yet these incidents represent only those which are reported. It is thought that the scale of patient harm is widely underestimated. Research has shown that medical errors and healthcare related incidents take place in approximately 10% of all hospital admissions in the UK. A recent study found that as many as one in three patients admitted to hospital in the USA suffers the effects of medical error.[6]

The UK and US have pioneered the national data collection of patient safety indicators,

1   The Council of the European Union defines patient safety as "freedom from unnecessary harm or potential harm associated with healthcare" in 'European Council Recommendations on patient safety, including the prevention and control of healthcare associated infections' (Brussels, 2009)

2   See letter from Chief Medical Officer to NHS stakeholder organisations (June 2000), available at: http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4014028.pdf

3   'The state of health care and adult social care in England, 2009/10' (Care Quality Commission, 2011)

4   Health Select Committee, Sixth Report (2008/09)

5   NPSA, 'NRLS Quarterly Data Workbook up to September 2010' (February 2011), available at: http://www.nrls.npsa.nhs.uk/resources/collections/quarterly-data-summaries/?p=1

6   Classen, D. et al., ' "Global Trigger Tool" Shows That Adverse Events In Hospitals May Be Ten Times Greater Than Previously Measured' Health Affairs (April 2011), available at: http://content.healthaffairs.org/content/30/4/581.abstract

and while other countries have adopted similar systems (typically based on hospital administrative data), there are few international sources for tracking patient safety.

The OECD is currently developing a set of indicators for the international benchmarking of country-level patient safety performance. "Reliable data on patient safety facilitates the improvement of the quality of health care. Given that adverse events should occur relatively rarely, these systems need to collect data in a standardised manner so that comparable data can be used for analysis and national policy relevance....An international database of patient safety indicators is needed for national benchmarking and learning." (OECD, 2007) Promisingly, the OECD has also noted the need for thinking about how these data systems could be used as a basis for quality improvement campaigns.[7]

As such, comparable international evidence on patient safety in healthcare systems is relatively disparate and scarce. Information is also highly contingent on the methodology of data collection. An international review for the UK Health Select Committee report on Patient Safety (2009) highlighted the degree to which data on incidents is sensitive to definition, coding and methodology.[8] For example, one form of analysis of data from a single English hospital in 2004 generated an incident rate of 10.9%, while a different methodology applied to the same data gave a figure of 7.2%. Similarly, data from 28 hospitals in New South Wales and South Australia in 1992 generated a rate of 16.6%, which fell to 10.6% under a different methodology.

However, the information from a number of other studies suggests:

- Across most of Europe (including the UK), medical errors and patient safety incidents take place in approximately 10% of all hospital admissions.

- Over 25% of respondents to a Eurobarometer survey (2009) claimed that they or a member of their family have experienced an incident with healthcare.[9] The majority of respondents also felt that hospital infections or incorrect, missed or delayed diagnoses are either fairly likely or very likely to occur when receiving healthcare in their own country.[10]

- As many as one in three patients admitted to hospital in the USA suffer the effects of medical error.[11]

- The Australian Institute of Health and Welfare (2008) found that, in 2006-07, there were incidents in approximately 5.1% of all hospital separations (including public and private sector providers).[12]

- Blendon et al. (2001) found that 64% of Australian physicians surveyed indicated that they were discouraged from reporting, or not encouraged to report, medical errors. New Zealand (63%) had similar results, while Canada (42%), the US (41%), and the UK (31%) seemed to compare more favourably.[13]

An OECD measure of patient safety based on agreed indicators and methods of analysis will help to facilitate the comparison of the rates of patient safety incidents between health systems in developed countries. The World Health Organisation has also published methodological guides for research, as well as practical 'checklists' for safe clinical practice. However, until time series data on patient safety outcomes starts to come through, international comparison between countries (including developing nations) is limited. Ultimately we hope for a regional or system level of data collection, enabling decision makers to see what works, where and why for improving their patient safety record.

UK Patient Safety: Problems and Policy

The UK has been at the forefront of an increasing international focus on patient safety in healthcare systems. The UK was the first in the world to adopt a patient safety strategy and the

7 OECD, 'Health Care Quality Indicators' Directorate for Employment, Labour and Social Affairs Health Committee (March 2007), available at: http://www.oecd.org/dataoecd/12/4/38705981.pdf

8 House of Commons Health Committee, 'Annex 2: International case note review studies', Sixth Report: Patient Safety (2009) available at http://www.publications.parliament.uk/pa/cm200809/cmselect/cmhealth/151/15118.htm

9 European Opinion Research Group, 'Patient safety and quality of healthcare', Special Barometer Survey for the European Commission (2010). Fieldwork September – October 2009.

10 Ibid, p7.

11 Classen, D. et al., "Global Trigger Tool' Shows That Adverse Events In Hospitals May Be Ten Times Greater Than Previously Measured' Health Affairs (April 2011).

12 AIHW, 'Health expenditure Australia 2006-07' Health and Welfare Expenditure Series no. 35. Cat. no. HWE 42 (2008) Canberra: AIHW. Notes that the most common causes related to abnormal reactions or complications from medical procedures and adverse effects of medicines. Also notes that these figures are likely to be underestimated because of data coding issues.

launch of the National Patient Safety Agency (NPSA) in July 2001 sought to embed a national system for monitoring and learning from incidents in healthcare (in England and Wales).

Since then, the Darzi 'Next Stage Review' (2008) has also stressed the importance of patient safety as a critical component of quality care. While the NPSA has been abolished by the coalition government, ensuring patients are treated safely and with dignity is a critical function of the Care Quality Commission (CQC), the health and social care regulator for England, which was set up in 2009.

There are signs that patient safety is becoming increasingly embedded as an integral part of quality management. The CQC 'State of Care' report in 2009 revealed improvements in performance overall and patient safety indicators in particular:

• There has been a steady increase in the number of councils performing 'well' or 'excellently'.

• The proportion of trusts scoring 'excellent' or 'good' for overall quality has risen from 41% in 2005 to 63% in 2009.

• The number of incidents reported by health care organisations has reduced greatly, but the reporting rate can vary widely across different types of organisation.

However, several research studies suggest that 10% of hospital admissions result in a patient safety incident or near miss. The CQC 'State of Care' report also noted some negative trends:

• Of all the performance areas reviewed, the CQC was most concerned with safety, safeguarding of children and vulnerable adults and staff training – three 'major contributing factors...into serious failings in care. The good practice that we found was lacking, when assessing services in 2009, should be in place as a matter of course.'

• One in six social care services were rated either 'adequate' or 'poor' (17% of services were adequate and a further 2% were poor).

• In both 2008/09 and 2007/08, only a third of councils performed adequately at maintaining people's dignity.

Despite having set an example for the world, the House of Commons Health Select Committee also finds that 'there has been insufficient progress in making services safer' (2008/09). An emphasis on compliance, regulatory processes and procedures has overshadowed 'actual outcomes and consequences, and professional competence'. Other priorities – particularly hitting targets for financial solvency or waiting lists in Accident and Emergency – have not only relegated patient safety, but 'undoubtedly, in a number of well documented cases, been a contributory factor in making services unsafe.'

Other reasons for inadequate patient safety standards include unsystematic data collection and under-reporting of near misses, incidents with harm and serious incidents – especially in primary care and by doctors. Policy designed to create an 'open NHS' in which staff work together to acknowledge and learn from mistakes in a 'just culture' has been met with considerable variation in practice.

However, the best performing organisations show that patient safety can become embedded as an integral part of continuous quality improvement. They show that teamwork, effective feedback mechanisms, training, better reporting and spot-check case note audits can help to minimise systemic errors. The risk of patient safety incidents is an inherent part of the complexity of modern healthcare, but evidence from the United States suggests that approximately 50% of harm can be prevented through comprehensive approaches to patient safety.[14] People are dying needlessly at the hands of our health system - a systematic, ex ante approach to risk management and patient safety can avoid much of this.

13 Blendon, R., Schoen, C., Donelan, K., Osborn, R., DesRoches, C., Scoles, K., Davis, K., Binns, K. and Zapert, K. (2001) Physicians' views on quality of care: a five country comparison, Health Affairs, vol. 20, no. 3, pp. 233-243

Definitions: Ex ante vs. Ex post Risk Management

- **Ex ante** risk management involves active learning from real-time data and trends to avoid or mitigate potential incidents. For example, in finance, ex ante risk management might involve setting borrowing limits on individuals or firms to constrain their risk taking activity and reduce the probability of potential losses.

- **Ex post** risk management involves monitoring outcomes and intervening in cases which fall below a particular level or threshold. For example, individuals and firms might be able to borrow freely, but are sanctioned if their losses exceed a certain amount.

A parallel example - emergency disaster management

To use a different type of example, emergency disaster management often relies upon ex post strategies including international aid, budget diversion or debt finance to fund the cost of cleanup and rebuild. International agencies, such as the United Nations, encourage countries to combine ex ante and ex post strategies to apply to disaster management. An ex ante strategy would involve investment in structural measures (e.g. earthquake resilient buildings and dams, sunken electricity lines to prevent hurricane damage) and non-structural measures (e.g. land use planning legislation, insurance premium incentives that encourage private loss-reducing prevention activities).

Traditionally, ex post strategies have predominated, but greater emphasis is being placed on risk reduction strategies that take a prevention-based approach. At present, of the estimated $10 billion in annual humanitarian aid distributed worldwide, only 4% is devoted to prevention. However, every dollar spent on risk reduction saves between $5 and $10 in economic losses from disasters.[15]

There are some signs that efforts to embed patient safety in the culture of healthcare delivery and management are paying off. Determined efforts to reduce the rate of hospital acquired infections, for example, have resulted in a marked decrease in the number of deaths associated with MRSA[16] and clostridium difficile.[17]

Nevertheless, patient safety still remains a cause for concern, and this concern might only increase in the next few years. Demand has been rising since the National Health Service was first established in 1948 and resources have been scarce before, but the scale of the productivity savings required of the health system (4% per annum until 2015) represents an unprecedented challenge. Combine financial constraint with structural uncertainty, and the need to maintain focus on safe, high quality care becomes all the more urgent.

The current challenge facing policy makers and practitioners is of the highest order, but there is now an opportunity to embed new, positive culture change. There is now an opportunity to design systems and processes that put tailored, high quality care and patient safety at the heart of the NHS.

14 Adler L et al., 'Global Trigger Tool: Implementation Basics', Journal of Patient Safety 2008, 4:245 – 249 in World Health Organisation Europe, 'A brief synopsis of patient safety' (2010)

15 Schwartz, E. 'A needless toll of natural disasters' Boston Globe (March 23, 2006). Available at: http://reliefweb.int/sites/reliefweb.int/files/reliefweb_pdf/node-203818.pdf

16 Office for National Statistics, 'Number of death certificates mentioning MRSA, England and Wales, 1993-2009' available at: http://www.statistics.gov.uk/cci/nugget.asp?id=1067

17 Office for National Statistics, 'Number of death certificates mentioning Clostridium difficile, England and Wales, 1999-2009' available at: http://www.statistics.gov.uk/cci/nugget.asp?id=1735

The Efficiency Case for Patient Safety

Despite the increasing interest and attention paid to patient safety since 1999/2000, a notorious lack of data and evaluation tools limits measurement of the rate of return on investment in patient safety activities. Nevertheless, as part of an integrated, system-wide effort to maintain high quality care and improve productivity, there is a strong efficiency case for effective monitoring of patient safety.

Case study: Nuffield Health

With over 30 hospitals and 200 fitness and wellbeing centres, Nuffield Health is one of the UK's leading independent providers. It is a registered charity and takes pride in its business model, which enables it to reinvest in the quality of existing hospitals, introduce new clinical services (e.g. health assessment and physiotherapy) and expand its innovative health and wellbeing products.

While it recognises the role of transparent information in driving up standards in healthcare, Nuffield Health emphasises the organisational response to the underlying data in maintaining and driving quality improvement. While risks inherent in health and wellbeing services cannot be eliminated, Nuffield strives to manage and minimise them to provide the most positive outcomes.

The Board Integrated Governance Committee and sub-committees provide the organisational structure for effective risk management, drawing on individual organisation clinical performance reports, risk register, accident/incident reports and clinical variance data. Patient safety is integral to the process of *"a cycle of continuous improvement to reduce risk and enhance quality for the benefit of staff and customers alike."*[18]

Nuffield uses Microsoft SharePoint, Datix and their bespoke Clinical Indicators and Variances (CIV) data management system to manage risk actively and to monitor patient safety and quality outcomes. It also matches these outputs with detailed unit cost financial information to identify potential efficiency gains from innovative new processes and products:

"We use our risk management process and systems to help us innovate. I meet with the procurement and marketing teams as well as clinical leads to work out what we can do better, more efficiently and how."

Nuffield Health

For example, each new patient is assigned a personalised planned pathway of care. The CIV system enables an ongoing (anonymised) assessment of actual activity. The system flags when a patient diverts from their pathway – by developing a deep vein thrombosis (DVT), for example – and tracks back to the relevant consultant or anaesthetist for discussion of the event's causes, remedies, and learnings. Nuffield is currently working to integrate their CIV tool with their web-based incident reporting system.

Tracking variance in safety and quality outcomes between individual clinicians also enables consultants to see whether and how they are doing things differently from their peers and to what effect (whether positive or negative). For example, looking at variance data with one orthopaedic surgeon revealed that – unbeknown to him – he was using a slightly different technique to colleagues. The surgeon then changed his practice and this closed the 'quality loop'.

While Nuffield acknowledges that continuous data analysis of variance and trends can be time consuming, it is working to integrate systems as seamlessly as possible to enable a single entry process. Nuffield has found that small changes in practice can save hundreds of thousands of pounds. For example, Nuffield estimates that the prevention of infection has saved about £100,000 in reduced litigation alone, and a change to the clinical waste system has saved £300,000 to £400,000.

Nuffield acknowledges the different challenges faced by the NHS, compared to the independent sector:

18 'Quality Report 2009' Nuffield Health 2009: 12

"To be honest, though, the context and case mix we get is different for us. It is easier in the independent sector. There is also a lot more hunger for clinical information; we are looking for patients and patients are paying for it. If patients are paying directly, they will expect quality. We need to deliver it."

Nuffield Health

On first glance, the opportunity cost of all healthcare staff being involved in system-level patient safety processes might appear high. Staff involved in training courses, attending meetings to discuss lessons learned or reporting incidents are taken away from the 'front line'. Their valuable time is not spent caring for patients. At a time when budgets are squeezed like never before and when management (as opposed to direct healthcare) expenditure is a particular target for cuts[19], any patient safety process that is perceived as excessively bureaucratic could be under threat.

However, the limited evidence suggests that the relative costs of maintaining patient safety systems are very low. In Japan, the cost of running internal audits of case notes and incident reporting were estimated to cost only 0.01% and 0.02% of revenue, respectively.[20] Staff training was marginally more expensive at 0.05% of revenue, and the highest cost activity arose from appointed dedicated staff to monitor and ensure patient safety, at 0.13% of revenue.[21]

Evidence from Australia suggests that significant total cost savings can be made from reducing the frequency and harm of patient safety incidents. A recent literature review for the Australian National Health and Hospitals Reform Commission (NHHRC, 2009) highlighted the potential efficiency gains.[22] These operational efficiency gains represent direct savings to healthcare providers and commissioners: "Operational efficiency is compromised by health system errors in a number of ways, including: additional time and resources and associated costs to correct for an adverse event; or adverse events leading to disruptions or rescheduling of other patients requiring interventions." (p21)

Drawing on a study of hospitals in the Australian state of Victoria, estimated savings for the Australian health system were calculated at approximately $1 billion per year. This figure was based on the following assumptions:

- 6.9% of admissions had at least one incident, increasing average stay by about 10 days;

- Incidents in selected Victorian public hospitals (which cover 86.4 per cent of Victoria's weighted in-hospital activity) add an extra $6,826 per associated admitted episode, amounting to a total cost in 2003-04 of $460 million, or 15.7 per cent of the total expenditure on direct hospital costs;

- Since Victoria represents around 25% of national hospital expenditure, the financial cost of adverse events for in-patients in Australia is estimated to be about $2 billion per year; and,

- Given that at least 50% of incidents are thought to be preventable, this would lead to a cost saving of $1 billion per annum or 3.7 per cent of the hospitals budget.

It is worth noting that the findings of the authors, Ehsani et al. (2006), would suggest that rather than making big savings on the most costly treatments, the greatest possibility for efficiency gains were likely to come from small savings on high volume care (e.g. hip surgery).[23]

Finally, as the NHHRC notes, operational efficiencies do not include the wellbeing and financial costs imposed on affected patients and their families, the primary beneficiaries from an enhanced patient safety system and associated total quality improvement culture. It would seem that the total benefits could far outweigh the costs.

19 UK Secretary of State for Health, Andrew Lansley, pledged in October 2010 to cut NHS management costs by a half: http://www.conservatives.com/News/Speeches/2010/10/Andrew_Lansley_70_million_to_help_people_in_their_homes_after_illness_or_injury.aspx

20 Fukund

21 Ibid, p387

22 'The Australian Health Care System: The Potential For Efficiency Gains; A Review Of The Literature', Background paper prepared for the National Health and Hospitals Reform Commission (2009), available at http://www.health.gov.au/internet/nhhrc/publishing.nsf/Content/A5665B8B9EAB34B2CA2575CB00184FB9/$File/Potential%20Efficiency%20Gains%20-%20NHHRC%20Background%20Paper.pdf

23 Ehsani, J., Jackson, T., and Duckett, S. (2006) The incidence and cost of adverse events in Victorian hospitals 2003-04, Medical Journal of Australia, vol, 184, no. 11, pp 551-555

A Way Ahead: Patient Level Costing

Patient level costing brings together costs that are directly attributable to individual patients into a single database. For example, the costs incurred from a patient arriving at A&E with a badly broken arm could be tracked through A&E consultation into x-ray imagery, then to surgery and recovery in an inpatient ward. Any associated medicine costs would also be tallied.

Patient Level Information and Costing System (PLICS) data helps to reveal specific issues that are not visible from top-line budgets or average costs. Set against known reference costs and existing tariffs, this data also provides a robust platform for meaningful discussions between commissioners, clinicians and finance managers.

The Department of Health recently published the results of its 2010 survey of NHS organisations using PLICS.[24] Of the 412 NHS providers asked, nearly 80% responded to this non-mandatory survey. The results showed:

- 33% of acute trusts had already implemented PLICS and a further 32% were in the process of implementing patient level costing systems;

- Of the 18 non-acute organisations considering PLICS, most were in the mental health sector (12);

- Of the 51 organisations that had implemented PLICS, 45 reported that they had used PLICS data to inform their 2009/10 reference cost return.

An example of ex post risk management, PLICS nevertheless provides much greater insight as to why there is apparent under or over spend for a group of patients or variation by consultant. In the longer term this data could be:

1. Extended to community care so that commissioning can be optimised across whole patient pathways;

2. Aggregated nationally to enhance the accuracy of reference costs and tariffs; and

3. Integrated with patient safety data to determine the costs of incidents and the relative value in risk reduction.

"Ultimately we aim to link PLICS data with the output from our Datix incident system so that we can understand the cost implications of adverse events and try to mitigate these. At the moment all trusts are looking at ways to improve their productivity and efficiency. We are trying to make better use of our data to help us see where and how we can do this, as well as provide our patients with safe care of the highest quality."

University College London Hospitals NHS Trust

Patient level costing and PLICS data analysis move us closer towards an embedded ex ante process of continuous innovation and productivity improvement.

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24 Department of Health, 'Patient-level information and costing systems (PLICS) Survey 2010' (2011) available at: http://www.dh.gov.uk/en/Managingyourorganisation/NHScostingmanual/DH_080056

Patient Safety in the New NHS landscape

While the destination of the current English NHS reform process is uncertain, the direction is clear:

- Increased diversity of supply

- Greater information for patients, the public and professionals, and

- A continued commitment to safe, quality care.

Central to these proposals is meant to be devolution of decision making to healthcare professionals closest to patients – GPs. As part of clinical commissioning groups (also referred to as GP commissioning consortia), GPs will have responsibility for allocating the vast bulk of the NHS budget, being required to purchase appropriate care for their communities whilst balancing the books.

As the Department of Health makes clear, an 'information revolution' is needed to support the commissioning of care from 'any qualified provider' within a more diverse, more competitive healthcare market (albeit funded largely by the tax payer). Effective flows of information are also paramount for enabling genuine patient choice and meaningful democratic accountability.

Information based on high quality data provides a platform for public debate, scrutiny and effective performance management. Recent data, for example, shows that the NHS is already feeling the effects of financial cuts and high levels of uncertainty about the nature and pace of reform: certain drug treatments are being barred by local commissioners on cost grounds (even when approved by NICE)[25]; the proportion of patients waiting longer than the statutory 18 weeks is arguably at a three year high[26], and the number of trusts failing to meet the accident and emergency waiting time target (already downgraded from 98% to 95% of patients seen within four hours) has increased[27]. Regarding the "slippage" in A&E times, Health Economist at the Kings Fund, John Appleby, argues that the data suggests "that if you stop performance managing these things, they do get worse."[28]

The collection of high quality data for effective performance management is therefore critical. At a time of diminishing resources, increasing (and increasingly complex) demand and structural change, it is all the more important. The right to healthcare free from harm is unassailable.

Standardised collection of comparative quality indicators (including patient safety as a key component) will enable:

- Clinical commissioning groups to make informed decisions about what services and therapies to provide;

- Enhanced management and evaluation of clinical and financial outcomes (including the associated costs/benefits of safe, timely and personalised care);

- Ready feedback to staff, patients and the wider public, supporting a system of continuous quality improvement – bolstered by internal learning and external accountability; and,

- Improved integration across health and social care pathways.

The Department of Health is currently developing a set of 'Indicators for Quality Improvement'. This pilot set of indicators has included pressure ulcer incidence – one of the NPSA's 2010 priorities for reducing levels of harm in ten high risk patient safety areas. Gathering data on the number and severity of pressure ulcers is therefore vital for tracking this important quality indicator. However, The Patients Association finds a mixed record in the NHS for relevant data collection. It suggests that while some Trusts collect data on pressure ulcers *"to drive investment in services to improve prevention, save money and improve patient outcomes[,] many other Trusts do not even know how many pressure ulcers they treat. Even fewer know the levels of ulcers from other causes e.g. diabetes and slow healing surgical wounds that affect their patient populations."*[29]

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25 See, for example, Stephen Adams and Laura Roberts, 'Patients are denied high cost drugs by NHS trusts' Daily Telegraph (12 April 2011). Available at: http://www.telegraph.co.uk/health/healthnews/8446782/Patients-are-denied-high-cost-drugs-by-NHS-trusts.html. Or, Hannah Al-Tarboulsy, 'Counting the cost of your treatment: GP told to deny medicine' Warrington Guardian (Thursday 21 April 2011). Available at: http://www.warringtonguardian.co.uk/news/8984984.Counting_the_cost_of_your_treatment__GPs_told_to_deny_medicine/.

26 The Kings Fund argues that February 2011 figures show 15% of patients waited over 18 weeks for treatment, the longest time since April 2008. The Department of Health have suggested this might be due to seasonal effects and, adjusted for this, the proportion is 10.2%. See Branwen Jeffrys, 'Kings Fund: Waiting times in England at three-year high' BBC News (20 April 2011), available at: http://www.bbc.co.uk/news/health-13130678

27 Department of Health, 'Total Time Spent in A&E' Quarter 3: Octob vailable at: http://www.ft.com/cms/s/0/90f0b6c4-3613-11e0-9b3b-00144feabdc0.html#axzz1KMJEFlH8

28 Ibid.

29 The Patient Association, 'Meaningful and Comparable Information? Tissue Viability Nursing services and Pressure Ulcers' (2010: 3), available at: http://www.patients-association.com/DBIMGS/file/Meaningful%20Information-Patients%20Association%20Sept%202010.pdf

Safety and Solvency: The case for a new approach to patient safety

Pressure Ulcer Productivity Calculator[30]

In 2004 academic research revealed the effects of pressure ulcers, typically requiring diagnostic tests, additional monitoring, more expensive pressure relieving surfaces and an extended length of stay in hospital.[31] These complications are estimated to cost the NHS between £1.4 and £2.1 billion annually. Costs aside, pressure ulcers can be distressing and debilitating for patients and have been associated with an increased risk of secondary infection and a two to four fold increase of risk of death in older people in intensive care units.[32]

In June 2010 the Department of Health launched its 'Pressure Ulcer Productivity Calculator' to help healthcare providers understand the cost savings that could be made if the number and severity of pressure ulcers could be reduced. These costs take into account nursing workforce time, bed occupancy time and treatment costs in the hospital and community.

The tool's example suggests that a 25% reduction in pressure ulcers (from 350 to 262) would mean an annual saving of £510,000 (at 2008/09 prices). In an organisation of any size, a saving of this magnitude is significant.

Prevention of pressure ulcers is now one of four safety priorities promoted by 'Safety Express', the patient safety workstream of QIPP (alongside falls, catheter associated urinary tract infections, and venous thromboembolism). These types of patient safety incident were selected in part because they all occur relatively frequently, have a high impact upon patients and are expensive to treat. Falls were also identified by nurses as a major problem which, if reduced, could result in more cost effective, higher quality care (see High Impact Actions for Nursing and Midwifery[33]).

In-patient falls are the most frequent type of patient harm across the NHS, and a significant number of these result in death or moderate to severe injury. Such injuries can cause physical and emotional stress for patients, their families and carers. They also impose additional costs and complexities on the health service as patients have to undergo further testing and treatment.

Understanding the cost implications of in-patient falls is therefore important in meeting the challenges of the NHS QIPP agenda on efficiency and quality. As this report shows, evidence about the relationship between quality care and unit costs is still emerging as methodological and data collection issues are resolved. However, work by Dr Mahmood Adil at the NHS Institute for Innovation and Improvement with Wrightington, Wigan and Leigh NHS Foundation Trust (WWL) has demonstrated the business case for patient safety for individual organisations.

Case Study: Wrightington, Wigan and Leigh NHS Foundation Trust

Over the course of 18 months, Dr Adil and his team worked with WWL to investigate the cost of falls to the Trust and the business case for monitoring patient safety. Drawing on patient safety reporting data (using the Trust's Datix system) the research team sought to define and understand their baseline rate of patient harm (per 1000 bed days by fall category). This quantitative overview was then supplemented by deeper analysis, including common underlying factors and particular types of patients at risk.

This data was then set against WWL's Patient Level Costing System (PLICS) data to map the real costs associated with breaches in patient safety. These costs included staff time, additional bed days and treatment, and complaints and litigation handling. Going back three years, the hospital's baseline 'harm cost' was calculated.

The next phase saw three pilot wards implement fall reduction interventions (TEAM RED Checklist) and a new patient safety data collection process, in which comprehensive information was gathered on the clinical and financial implications of new falls. The results were presented in a 'harm cost dashboard' for clinical and financial leads to monitor incident and cost patterns and team progress. In the first six

30 Department of Health, 'Pressure Ulcer Productivity calculator' (2010), available at: http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/@ps/documents/digitalasset/dh_116670.xls

31 Bennett, G., Dealey, C., and Posnett, J. 'The cost of pressure ulcers in the UK' Age and Ageing (2004) 33 (3): 230-235.

32 The Patient Association, 'Meaningful and Comparable Information? Tissue Viability Nursing services and Pressure Ulcers' (2010: 7)

33 'High Impact Actions: The Essential Collection' NHS Institute for Innovation and Improvement (2010)

34 NHS Institute for Innovation and Improvement, 'How to reduce harm, improve quality and save costs – A practical step by step guide for ward staff and frontline healthcare teams' (2011) Available at: http://www.institute.nhs.uk/safer_care/safer_care/stepwise.html

months alone, there was a reduction of 18% in falls. The results suggested the potential to achieve £120,000 savings by halving the number of falls within two years. Against a cost of intervention of £15,000 start up and £5,000 per year maintenance, the business case for patient safety is clearly made.

The impact of WWL's work on cost and quality has extended nationally and internationally. For example, the NHS Institute has published the case study in its 'stepwise guide'[34] for Trusts to reduce in-patient falls and save costs. The Healthcare Finance Management Association (HFMA) has also showcased the work as an example of clinical and finance teams working together for shared cost and quality outcomes. Further afield, Dr Adil is forming a collaborative partnership with Kaiser Permanente and Intermountain Healthcare in the USA to share mutual learning on reducing falls.

Effective data collection and sharing of lessons learned from incidents becomes all the more critical at a time when increasing types of health care are carried out in the community. Risk management across a fragmented system is all the more difficult, but all the more necessary to ensure patient safety across whole pathways of care.

As the case study of NHS Blackburn with Darwen (below) shows, coordinated risk management between acute hospitals and community services can result in significant improvements in quality of care. In seeking to commission high quality services in spite of ever squeezing budgets, clinical commissioning groups will also have an interest in ensuring costs associated with medical error are not simply passed from one organisation to the next as patients move between different providers.

Case study: NHS Blackburn with Darwen (Provider Services Unit)

NHS Blackburn with Darwen (BWD) is transitioning away from its former Primary Care Trust (PCT) status to a new structure which sees its commissioning arm working separately and the Provider Services Unit merging into the Lancashire Care NHS Foundation Trust from June 2011. The Provider Services Unit directly provides community services, including district nursing, health visitors, school nurses and speech and language therapists. It works closely with a number of hospitals in the area.

Staff can report incidents on the web-based Datix system from any computer connected to the BWD Provider Services Unit server (they cannot report remotely). An alert is triggered to the relevant team leader(s), the Governance and Risk team, and other appropriate individuals (e.g. the Director of Nursing for serious incidents or the local Security Management specialist, who works across central Lancashire). Team leaders can then add further information and allocate actions as appropriate. The incident is managed at this local level unless the complexity or severity of the incident warrants more senior level intervention.

The Governance team meets on a weekly basis to discuss incidents that have occurred. This central team checks whether suitable actions have been initiated, whether further information is required or any other follow up is necessary. The heads of each of the respective community services also get together at a weekly meeting to talk about pertinent cases. This meeting is a valuable opportunity for the Governance team to share emerging data trends and lessons learned – whether from comprehensive root cause analyses or more informal investigation. Given the disparate nature of community services, this weekly face-to-face meeting is an important way of ensuring coordinated action on patient safety and risk management.

Coordinated action and feedback between community services and other providers is a critical part of ensuring continuity of care and an integrated approach to patient safety. For example, community nurses and tissue viability specialists worked together to categorise and monitor pressure ulcers consistently. This enabled them to identify when, where and how patients were developing pressure ulcers. Ongoing discussions between the community services team and the hospital meant that while BWD continued to

report a high number of pressure ulcers, the proportion categorised as Grade 3 fell. This improvement in a key patient safety indicator was something in which staff across the services could take pride.

The NHS Blackburn with Darwen case study above shows that interoperable technologies are a necessary component of coordinated risk management. Systems and processes are also needed to enable the building of relationships within and across organizations. They must also support a culture where safety is paramount, integral to clinical quality and a potential source of pride for all staff.

At a time when greater competition in healthcare could act as a disincentive for collaboration and sharing of information, clinical commissioning groups (and the NHS Commissioning Board) will have a responsibility to ensure patient safety across care pathways. In 2006, the Health Committee found "scant evidence that data collected through the NRLS were 'effectively informing patient safety at the local NHS level'". Such local learning from transparent, nationally standardized outcomes data is critical.

The box below considers what informatics are needed for clinical commissioning groups to commission care with the highest standards of patient safety. It highlights the views of a range of organisations which emphasise the role of data and information in safety and quality management.

Mapping the Evidence: Health and Social Care Bill Consultation

Commissioners need accurate data on comparative performance (including quality and safety measures), costs and local disease prevalence. If they do not have this data, they risk operating in the dark. In response to the Health Select Committee inquiry on commissioning and the NHS information strategy consultation, several organisations highlighted the importance of the role of data and information. For example:

"While we know that mortality rates in hospitals vary from below 29% of the national average to 31% above it,[35] we lack similar insight on episodes in primary care. Some of the underlying data exists, but it is not routinely collected. Comparison within organizations and against peers is an important part of the learning and feedback 'quality loop'. At present there is very little data on quality or efficiency for most "out of hospital" services (especially community-based services) and the quality of data in social care is very poor (e.g. there is no standardised outcomes data on nursing homes or hospices)."

2020 Public Services Trust, Information and Technology Group

The British Computer Society (BCS) has emphasised the role of informatics professionals in ensuring patient safety, quality care and public trust in the data released on comparative standards of care. In its submission to the NHS Information Revolution consultation on proposals, the BCS also highlighted the potential for data sharing and integration between public, private and third sector providers:

"...'high quality care for all' includes a useful definition of the level for information on quality that services should hope to achieve. It proposes that managers should be able to produce timely data on the clinical effectiveness, safety and quality of experience for each service line offered. This is a good definition for secondary care, community care, possibly mental health and, with some adaptation, also primary care. The same approach should be taken to understanding the quality of services across organizational boundaries and cost information."[36]

British Computer Society

Evidence and understanding of comparative costs, benefits and safety record of health interventions

35 Dr Foster Intelligence, 'The Dr Foster Good Hospital Guide; How safe is your hospital?' (Dr Foster Intelligence, 2009)

36 British Computer Society, 'BCS report on NHS Information Revolution consultation on proposals' (2011), available at: http://www.bcs.org/upload/pdf/liberating-the-nhs.pdf

37 http://www.publications.parliament.uk/pa/cm201011/cmselect/cmhealth/513/513vw.pdf

was at the heart of the commissioning process, said ESCO, an independent lobby group on obesity:

"Commissioning health delivery services, whether as an individual GP, a consortium or through a specialist commissioning service should be based on 3 key criteria:

1. The evidence base for the intervention in comparison to the alternatives based on efficacy, safety and outcomes.

2. Cost and availability of the intervention.

3. Economic "return" of the intervention (short term cost neutral or cost savings, or up-front costs with greater long term benefits). This can be cost dominant (saves money or pays for itself) such as bariatric surgery or cost inferior (costs money but delivers a positive clinical outcome). The cost of the treatment and the care patients receive will be value for money if it returns the patients back into society with the ability to work and contribute to the local economy and reduce the cost of care for diseases that are resolved as a direct result of their treatment, for example hypertension and diabetes."

Experts in Severe and Complex Obesity (ESCO)[37]

Budgets might be increasingly squeezed, but the insight and innovation that can come from tracking patient safety indicators can help to allocate resources more efficiently. This becomes even more effective when integrated with unit cost data and wider quality indicators, including patient satisfaction.

Embedding patient safety within overall financial and clinical review systems moves it beyond an issue of simple compliance. Effective risk management puts patient safety at the heart of high quality care, which all healthcare professionals are committed to deliver and all citizens expect to receive.

With increasing patient choice of treatment and provider, providers will be under greater pressure to prove their safety and quality record. As our evidence from the independent sector highlights, the public are already using this information to guide their decision making:

"Patients are asking us about our MRSA rates. They want this sort of information, so we have started counting the times people view it on the website."

Independent provider

In the face of considerable uncertainty over the precise nature and pace of reform and tightening budget constraints, patient safety cannot be seen in isolation. It must be embraced as integral to clinical and financial sustainability. This section has discussed the importance of routine data collection in ensuring safety standards are maintained to support the citizen's right to safe, effective and efficiently delivered care. We conclude by discussing how a culture of integrated patient safety can be embedded at an organisational level.

Conclusion

Patients have an unassailable right to be protected from unnecessary harm. Provider and commissioning organisations should not see patient safety as a separate issue, consigned to an administrative matter of compliance alone. Rather, effective ex ante risk management can reduce the likelihood of patient safety incidents occurring in the first place, driving up the effectiveness and efficiency of services across care pathways.

The Darzi Review of 2008 put high quality, safe and personalised care at the heart of the NHS. The new reforms proposed in the Health and Social Care Bill (2011) retain this commitment, albeit in a more marketised fashion where GPs are to be responsible for allocating the bulk of (increasingly constrained) NHS resources. While the precise nature of the reforms is uncertain, a new system of commissioning is already coming into place across much of England. In the new landscape, hospital trusts and commissioners will be a more localised source of accountability for patients, creating an ideal opportunity for patient safety to move beyond an administrative compliance issue.

But this accountability needs to start with much clearer visibility of GPs' own comparative safety and quality outcomes. When combined with financial and clinical outcomes data across whole patient pathways, the vision of an accountable, effective and efficient NHS starts to be realised.

Healthcare is inherently full of risk. But within a system-wide culture of team-based commitment to continuous quality improvement, patient safety data allows us to quantify and mitigate that risk. Only with data can we understand the relative performance of individuals and organisations, minimising significant variation and driving up quality while driving down costs. An 'information revolution' will be needed to underpin the new NHS landscape of choice between a greater diversity of suppliers. Together with financial data and other clinical outcomes, patient safety indicators are an integral part of working towards a sustainable NHS with safe, quality care at its heart.

Data is not sufficient, however. It needs to be embedded as part of a broader framework to create resilient, adaptive systems, which need to be designed to cope with failure when it arises. High quality data on patient safety helps predict with greater accuracy what, where and when incidents might occur and how they might be prevented. This report has shown that ex ante risk management can reduce the level, cost and added complexity caused by medical harm.

Recommendations

There are new challenges to be faced for patient safety. The health environment is raising risk for patients with older age or co-morbidity. There is change in commissioning with a likely greater role for GPs. There are pressures towards integrated care, and there are new care challenges for a declining number of experienced ward staff within hospitals.

In this section we set out some options for local investment and development. Over the past few years, safety systems have been imposed from the centre and have focussed on reporting alone. New systems will be developed at a local level. They will serve local providers and local commissioners with the information they need to improve care. This second generation of patient safety systems will represent an ex ante approach, as opposed to the first generation, which was mainly ex post. The new phase of patient safety is about prevention and raising staff capability, and about providing service on an integrated basis.

The new local model has to be based on shared information within staff teams. It will require a

different approach in procurement with more flexible use of laptops, smart phones and innovative software programmes. It will also have to allow for inter-operability with GP systems. We set out below the key points in terms of some familiar areas – data collection, leadership and teamwork – but emphasise their integration within the IT-enabled second generation in patient safety.

A model for second generation patient safety

The literature and guidance on patient safety often refers to embedding a culture of effective risk management. It accepts that incidents take place, but that processes and systems can be put in place to mitigate the risks of them happening and the harm inflicted when they do.

At a time of structural uncertainty and squeezed resources, particular focus needs to be placed on maintaining the safety and quality of patient care. Across organisations – including clinical and non-clinical staff at every level – a commitment to safe care needs to be integral to every health-related activity. Integrated, ex ante risk management can deliver better care for less. Data-led, culturally embedded patient safety systems close the 'quality loop', allowing organisations to:

- Evaluate which clinical procedures, practices and devices are most effective;

- Understand where and why there is significant variation between individuals and organisations;

- Identify teams which are 'positive deviants', achieving exceptionally high outcomes with limited resources;

- Allocate resources more efficiently;

- Create a positive environment where staff feel valued and take pride in continuous quality improvement.

Drawing evidence from a range of case study organisations and international secondary literature, the design of an effective ex ante risk management system and culture requires:

1. High quality data collection
2. Leadership
3. Teamwork

High quality data collection

Risk involves quantifiable probabilities – where the chances of an outcome occurring are known. High quality data is needed to improve our understanding of the quantifiable risk of an incident taking place.[38] But comprehensive data collection must be incorporated within a system that goes beyond a punitive, administratively arduous compliance regime. It must be integrated within a system that allows staff to take pride in bringing about continuous quality improvement.

A truly embedded culture of patient safety is one where safety is not only deemed important in its own right, but it is the foundation of quality care and service improvement. In this way, patient safety means more than appropriate compliance reporting procedures. A culture and system of integrated patient safety understands that incident reporting data is as important as clinical outcomes and other performance data; an incident is the worst kind of clinical outcome, and one that the whole organisation should want to learn from and prevent from happening again.

The rate of incident reporting in England and Wales has improved significantly from 2003 when the NRLS was introduced, with over 80% of organisations now reporting incidents each month. While on first reading

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38 The Audit Commission defines high quality data as: accurate, timely and collected as close to source as possible (see Audit Commission, 'Improving Data Quality in the NHS' (2010).

this might suggest that the patient safety record of England and Wales has diminished, high reporting rates are in fact associated with a culture of learning from patient safety incidents and 'near misses'.

"When people just report the serious incidents it's indicative of a 'have to report' culture. We show people what they can report and how this gives a much better picture of risk and patient harm. We want our incident numbers to go up."

Tower Hamlets PCT (commissioning body)

Data collection and management systems also need to be tailored for localised use as well as national reporting:

"We have developed their own coding categories and created short forms for speedier reporting of common process errors (e.g. case notes not available at the time of consultation). Rather than relying on anecdotal evidence [we have] built this into the reporting/monitoring of unexpected clinical incidents (e.g. the NHS-wide categories: MRSA, pressure ulcers, VTE and falls).

NHS Foundation Trust

"At the moment I'm working on a project to make the data coding categories suitable for us as a commissioning rather than provider organisation. It's important to get coding right for patients otherwise you miss out, or under/overestimate the types of risks and harm they are exposed to and can't direct resources properly."

Primary Care Trust

Standardized data collection need not be a route to excessive bureaucratisation or finger pointing. To reduce any administrative burden on staff, a simple web-based or smart phone/tablet-compatible system of incident and near miss reporting can provide an accessible platform for all staff, clinical and non-clinical.

However, training is important to ensure staff are confident they know how to identify incidents consistently and appropriately:

"Continuous process measurement and feedback to support continuous improvement is ideal in theory but harder in practice. Few trusts involved in the Health Foundation's 'Safer Patients Initiative' had systems in place to ensure staff had requisite skills in measurement and quality improvement methods. Therefore, they needed to provide training…"

Health Foundation 'How safe are clinical systems?' (May 2010)

When tracked against unit costs, patient safety data can drive innovation and productivity. Integrated as part of this wider 'quality feedback loop', incident reporting can help to enhance the efficiency and effectiveness of health and social care.

Leadership

Staff must feel that it is worth their time reporting incidents or near misses. Recognition of the power of incident reporting needs to be made at the most senior levels of clinical leadership and management, and championed more locally. Feedback on the lessons learned, actions taken and how resources have been reallocated in light of particular incidents and trends is vital.

Evidence from Japan suggests that the time staff devoted to patient safety is "significantly linked" to their "perception regarding hospital administration leadership in implementing patient safety and infection control activities."[39] Yet some research also finds that patient safety can be a relatively low priority for hospital managers,

39 Fukunda, H. et al, 'Factors associated with system-level activities for patient safety and infection control' Health Policy 89 (2009) 26-36

40 Mello, MM. et al., 'Fostering rational regulation of patient safety' Journal systems in teaching hospitals' Health Policy 88 (2008) 381-391

41 David Wood, 'How to get NHS staff to learn to love efficiency' Guardian Healthcare Professional Network (Thursday 14 April 2011), available at: http://www.guardian.co.uk/healthcare-network/2011/apr/14/nhs-staff-learn-love-efficiency-salford-royal

due in part to the asymmetry of (monetary and non-monetary) costs falling predominately "on injured patients, their family and their health insurers".[40] When integrated into overall clinical and financial management, the value of effective risk management is real and cashable for health care commissioners and providers.

For example, in conjunction with its staff suggestion scheme, the value and importance of patient safety at Salford Royal is demonstrated by weekly executive 'Safety Walkrounds'. This supports local teams in creating opportunities to discuss patient and staff safety issues and identify areas for improvement:

"The cultural change we're trying to achieve is a continuous process, rather than something with an end point. We believe that listening to staff and empowering them to improve and contribute means there is likely to be a proportionate improvement in our patients' experience. That mutual benefit must be something worth pursuing."[41]

Salford Royal NHS Foundation Trust

Teamwork

Data reporting and analysis are necessary but not sufficient for effective risk management. A just, supportive culture, shouldered within resilient teams is needed in the face of failures, which – in the inherently risky business of health and social care – will occur at some point.

"We're trying to embed a culture of resilience, so that staff feel able to say, 'I'm human and I made a mistake' or 'I can't cope'. To increase reporting of incidents and near misses, staff must feel that they can trust the organisation to deal with it in an appropriate, supportive way. Patient safety is about teamwork from the receptionist and the porter, all the way up."

Guys and St Thomas' NHS Foundation Trust

"Over the last few years we have become a high incident reporting organisation due to the development of trust amongst staff – trust that they will not be named, shamed and blamed for incidents, but that reporting is used as a driver of learning and quality."

Blackburn with Darwen PCT

Feedback from data trends analysis and specific incidents is vital for encouraging reporting. Actionable recommendations within and across teams can drive quality improvements and save money. This is particularly important for enabling collaboration across teams in primary and secondary care, as well as those increasingly based in the community. With the rise of chronic illness, a rising demand for long term condition management and an attempt save costs, more treatment is taking place outside hospital and in the community (including, for example, post operative recovery). Risk management strategies and patient safety reporting will have to adapt to this environment, requiring coordinated, flexible responses between local teams.

Together with data tracking progress over time, this can help to build staff morale with positive outcomes for healthcare professionals and patients alike.

"It's really important to give people feedback otherwise they feel all this reporting is falling into a black hole."

Tower Hamlets PCT

Patient safety is something for which everyone in the health service takes responsibility. Underreporting of incidents among certain types of healthcare professionals indicates a cultural resistance. For example, whether for fear of litigation or even just peer-level scrutiny, hospital

doctors and GPs seem particularly reluctant to report. Given that 90-95% of all patient contact takes place in primary care, we should expect to see higher levels of incident reporting:

"It's how you sell it. It's not about 'clinical governance', which sounds like it has nothing to do with me."
Guys and St Thomas' NHS Foundation Trust

High quality data on patient safety helps predict with greater accuracy what, where and when incidents might occur and how they might be prevented. Embedded as part of a broader framework, high quality data collection enables resilient, adaptive health systems. As this report argues, such ex ante risk management can reduce the level, cost and added complexity caused by medical harm.

View from the Front: What does this all mean for me?

Where patient safety is merely a compliance issue imposed from the top down, individual staff can feel isolated and demotivated. Even where they not blamed, there is little incentive for staff to report incidents and give attention to high quality data collection. Where staff do not have ready access to a suitable computer terminal, the ease with which they can report incidents and actively engage with patient safety diminishes further still.

...local staff on the wards and out in the community

The model of patient safety outlined here maintains a focus on central reporting of incidents and the strategic and operational management of risk. For frontline staff, it should mean:

- **Centralised reporting of good practice** (e.g. effective prevention strategies or other innovations);

- **Real time data collection** via smart phones, tablets and laptops rather than clunky desktop terminals, which might be in use, off site or restricted to particular staff.

- **Regular team meetings** where patient safety lessons, objectives for improvement and ideas for innovations are on the agenda. This is an opportunity to share learning and collaborate with other teams, particularly those with whom patients are referred from and to.

Moving risk management into the twentieth century means utilising basic modern technologies to bring patient safety to the right side of the digital divide. This increases the capacity for each member of the team to support one another in shouldering responsibility for quality and safety. Easier and faster communication of incidents and good practice also enables staff to take initiative and builds morale.

...and for the finance director?

The cost implications of this technology-enabled approach need not be large and the cashable benefits will far outweigh these. A word of caution extends to the integration of new systems with existing hard and software – developers, clinicians and corporate support teams must work together to understand each other's needs and constraints – but overall, ex ante risk management processes should be seen as integral to continuous efforts to drive up quality and efficiency.

Positive change in an uncertain future

In the face of uncertainty surrounding the proposed Health and Social Care Bill (2011) reforms, it nevertheless seems likely that hospitals and GPs will become a more localised source of NHS accountability for most patients. This accountability needs to start with greater visibility of comparative safety and quality outcomes, especially in primary care, where GPs are the lowest reporters of incidents. Traditionally restricted to the

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42 Fukunda, H. et al, 'Factors associated with system-level activities for patient safety and infection control' Health Policy 89 (2009) 26-36

realm of acute hospitals, monitoring patient safety will have to follow the patient as their care is increasingly delivered in the community. Such change demands strong leadership, collaboration between increasingly specialised teams, and a clinical and managerial commitment to high quality real-time data collection.

As incident reporting rates continue to rise, there is hope that a culture of learning and continuous quality improvement is being embedded across the health service. As such, while the future might be uncertain, it need not be bleak; several organisations – including Salford Royal, Wrightington, Wigan and Leigh and Nuffield Health – have shown that effective risk management can be central to enhancing efficiency, reducing costs and improving outcomes for patients. The next step is to ensure that patient safety is built into a comprehensive, ex ante approach to overall quality and productivity improvement. This ex ante approach moves patient safety from a compliance issue imposed by a few, to an integral process in which all staff take pride. If this were an old-fashioned regulation exercise it would tick both boxes – better outcomes at lower cost.

Summary: Embedding Integrated Patient Safety and Risk Management

High quality data collection: improving reporting rates across organisations (especially amongst hospital doctors and GPs, who are currently less likely to report), facilitated by simple and easy online systems, feedback on lessons learned/actions taken and awareness at Board level that high incident reporting can represent a strong commitment to safety, overall quality and productivity improvement.

Leadership: local leadership at the front line, supported by a senior-level managerial and clinical commitment to closing the 'quality loop' by data, feedback and an open culture of innovation at every level. Evidence suggests that the time staff devote to patient safety is "significantly linked" to their "perception regarding hospital administration leadership in implementing patient safety and infection control activities."[42]

Teamwork: data reporting and analysis are necessary but not sufficient for effective risk management. A just culture of fair blame, shouldered within resilient teams is needed in the face of failures, which – in the inherently risky business of health and social care – will occur at some point.

Datix

Software for Patient Safety

Volterra Health