

The role of boards in improving patient safety

June 2010

BCG

Patient care inevitably raises issues of safety. Safety measures can never be failsafe, but they can always be improved. The aim of this publication is to offer guidance to boards on helping to bring about these improvements.

The publication was developed by Monitor for NHS foundation trusts, though its principles apply equally to other NHS settings. It draws on evidence and best practices from UK pilot sites, and also taps the experience of healthcare providers in other developed countries who use similar principles and approaches. The field research and work with the UK pilot sites took place between October 2009 and March 2010.

The steering group for the publication was a diverse one. Its members were drawn from four organisations: Monitor, the Health Foundation, the National Patient Safety Agency and the Boston Consulting Group.

Our thanks to all the contributors who provided valuable insights for use in this publication. A list of the experts interviewed can be found in the Appendix.

The approach to producing this publication

Monitor

Independent Regulator
of NHS Foundation Trusts

1

**Distil the existing
guidelines and
best practices**

**A review and synthesis of
over 30 guidelines, reports,
initiatives and other
materials on patient safety¹**

2

**Enrich the information
by interviewing experts
and by benchmarking**

**Interviews with over 20
experts both within and
outside of healthcare ¹**

3

**Make it all relevant by
seeking analyses from
NHS foundation trusts**

**Interviews, focus groups
and a data review in four
participating pilot trusts**

**A synthesis of key elements, best practices and the actions
that a board of directors can take to ensure safe patient care**

1: Details of interviews and guidelines are provided in the Appendix

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Patient safety needs to be a higher priority:

- Patient safety has a high, and growing, profile with the government, regulators and the public
- Several recent events have highlighted system failings in patient safety measures
- Avoidable deaths number many thousands, according to estimates ¹

Investing in patient safety may become increasingly challenging in a more financially constrained environment. But it is something that has to be done.

NHS boards ² are the critical intervention point:

- Each board sets the agenda, investment level, culture and strategy, and its members are individually and collectively accountable for patient safety

Creating a safer environment will be a journey:

- Setting the overall ambition and prioritising the highest value actions will constitute the first step

This publication is designed to support best practices and suggest levers in order to help boards address this complex issue:

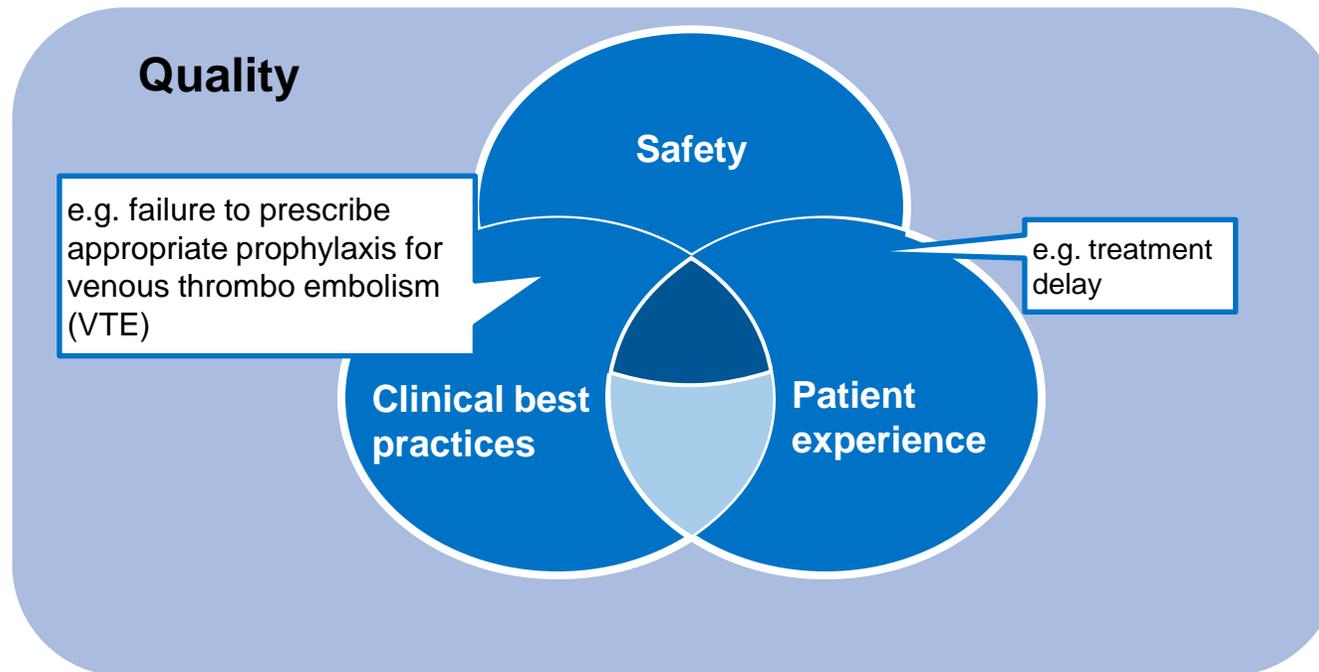
- Boards can take action on several fronts: leadership, staff engagement, guidelines and training, safety metrics, the learning cycle, and resourcing
- Various resources and support are available to help boards along this path

The role of boards in improving patient safety

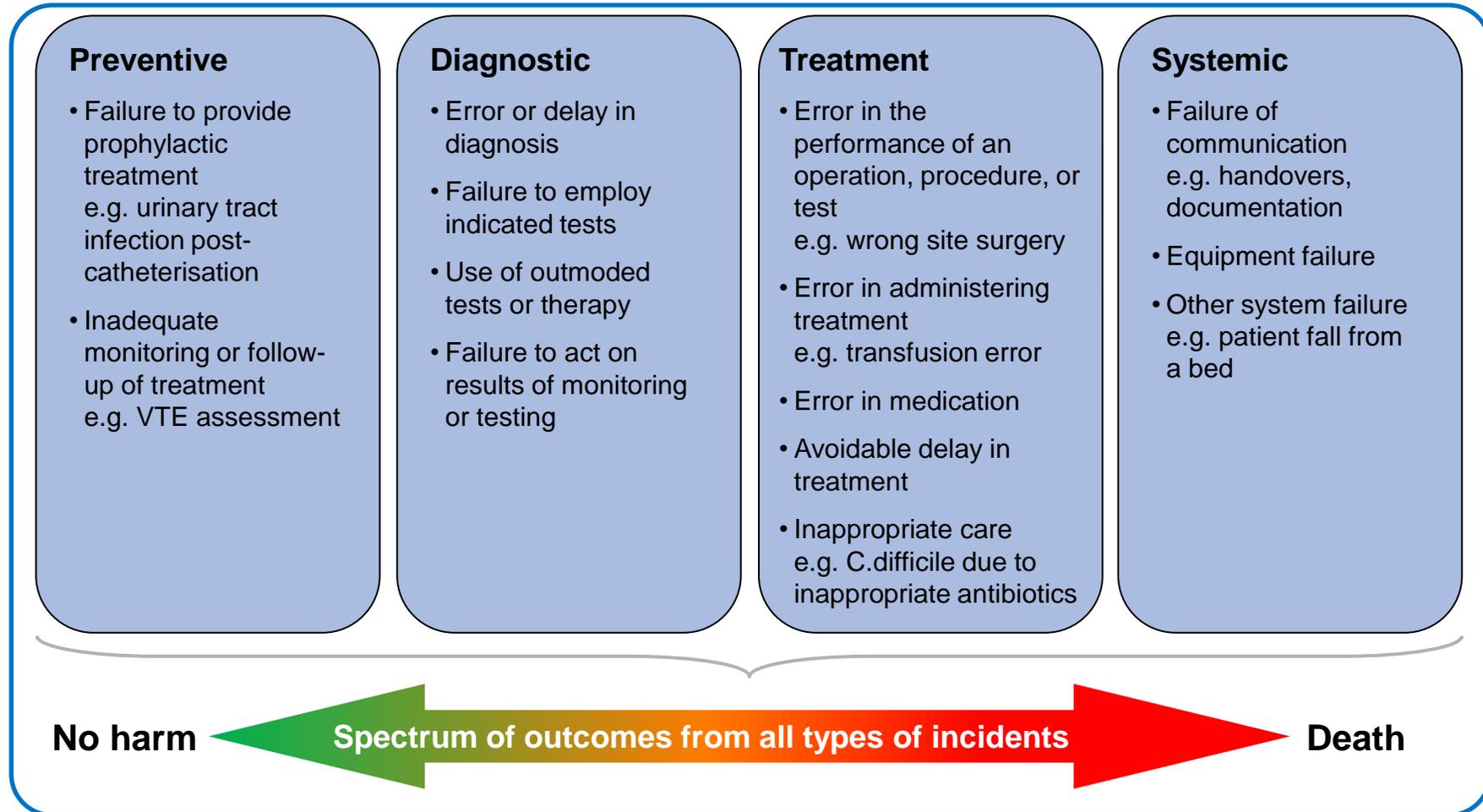
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What is patient safety?

"Patient safety is the avoidance, prevention and amelioration of adverse outcomes... It is related to 'quality of care' (e.g. clinical practice and patient experience), but the two are not synonymous. Safety is an important subset of quality."¹



Patient safety incidents can occur at multiple points in the patient care pathway, with a wide-ranging impact

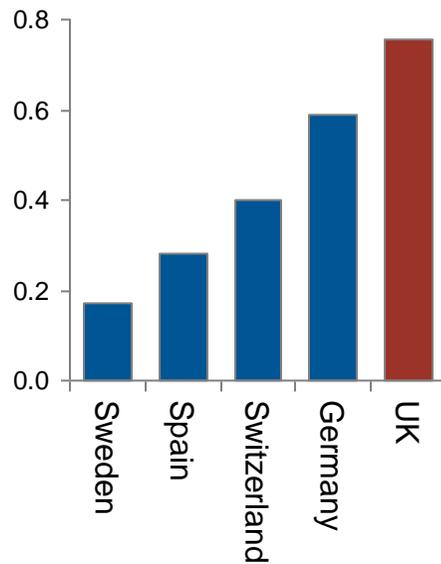


The UK lags behind comparable countries on some basic patient safety indicators

Opportunities for improvement in specific areas

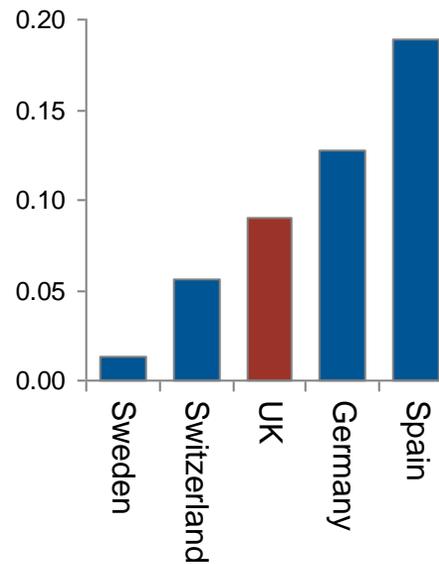
Pulmonary embolism

Rates



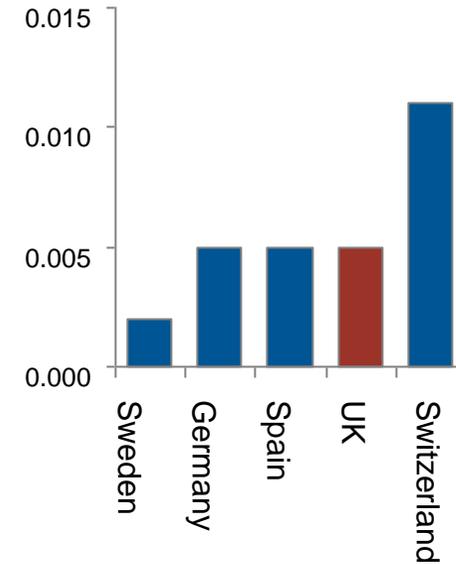
Blood-stream infection

Rates

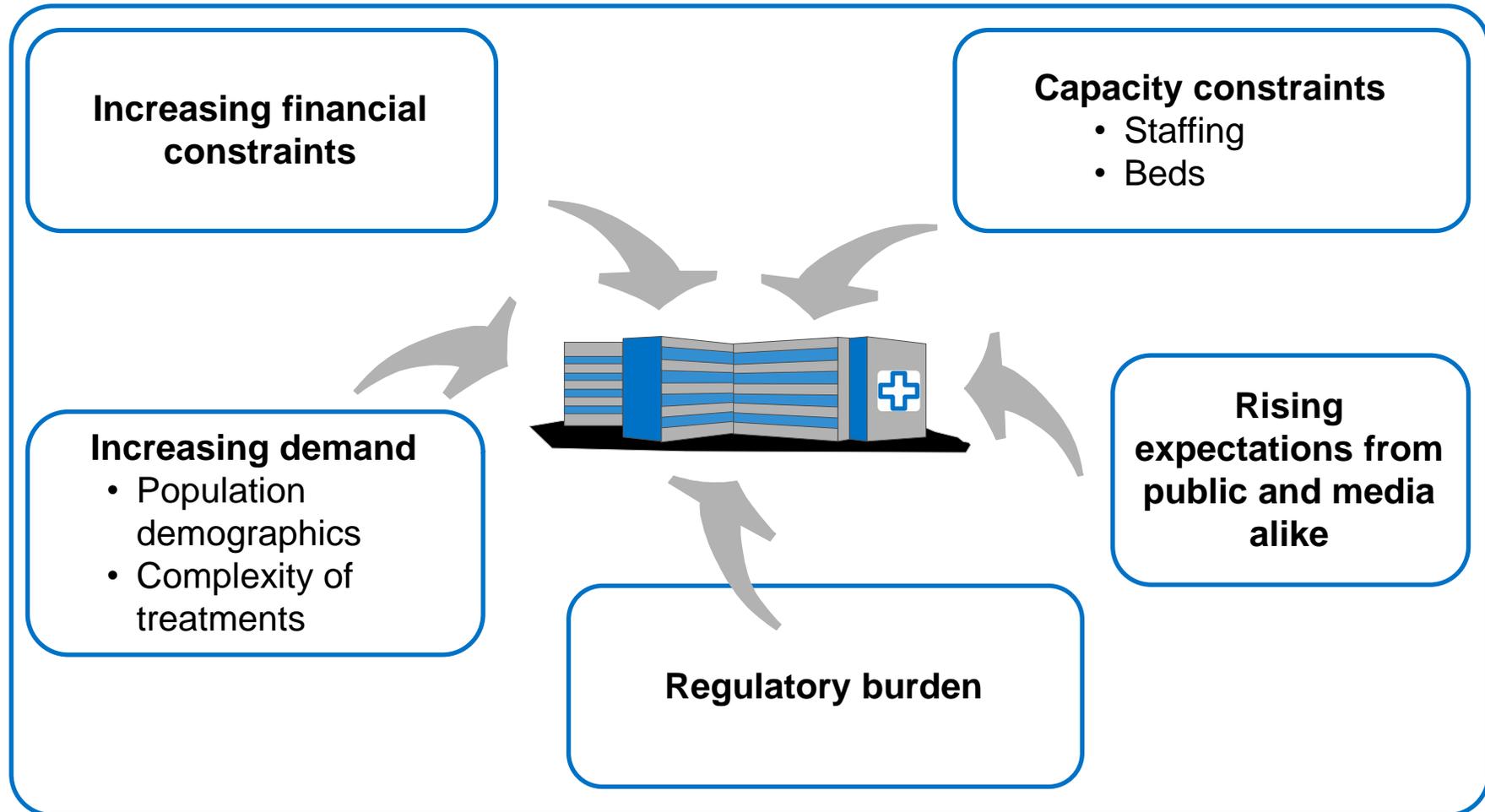


Foreign body left in after procedure

Rates



Maintaining or improving patient safety is increasingly challenging



But it is essential and there are strong incentives

Avoidable patient safety incidents occur every day in the UK

- Over 1 million patient safety incidents reputedly occur per year,¹ of which half may be preventable²
- Avoidable deaths number many thousands, according to estimates³

The effects are widespread

- Devastating emotional and physical consequences afflict patients and their families
- A significant impact is felt by the staff, with knock-on effects on the service provided

A strong financial case can be made for improving patient safety

- Infections, pressure ulcers and adverse drug events alone cost the NHS ~£5 billion per year^{4,5,6}
- In 2008/9, £0.8 billion was paid in connection with clinical negligence claims⁷
- PCT contracts increasingly include a patient safety focus (e.g. CQUINS)
- Tariffs are likely to be linked to safety and experience metrics in the future

Trusts that have invested in patient safety are expecting significant savings

- The Salford Royal NHS Foundation Trust, for example, has estimated that by reducing *C. difficile* rates, it would save £270,000 per year⁸

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How to take these elements forward in a trust

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Boards are responsible for patient safety within their organisations

The following pages detail six elements that hold the key to safe patient care

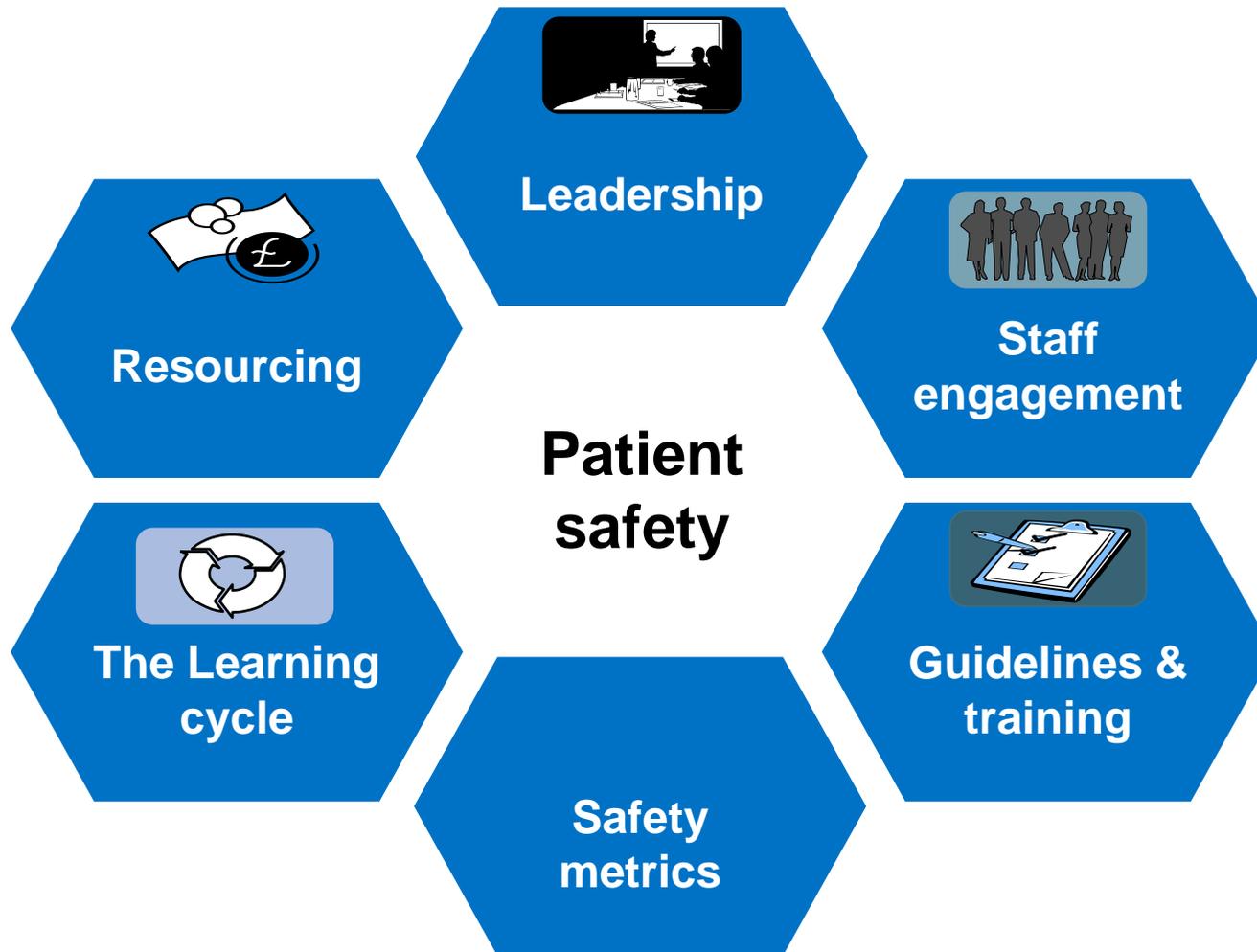
The board, as a unitary body, has a critical role in delivering each of these, either directly or indirectly (e.g. through subcommittees):

- *"Legally there is no distinction between the Board duties of Executive and Non Executive Directors - they both share responsibility for the direction and control of the organisation"* ¹

It is the board's responsibility to ensure that appropriate competencies exist within the group and the overall organisation. The requirements include:

- *"Actively developing the effectiveness of the Board of Directors through performance evaluation of the board, its committees and individual Directors"* ²
- Maintaining a balanced perspective of the overall health of the trust, without being sidetracked by isolated incidents or anecdotes
- Acknowledging negative as well as positive findings reported to the board

Six key elements that boards need to address



Leadership – what others have said about it



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

"Only senior leaders can productively direct efforts in their health care organisations to foster the culture and commitment required to address the underlying systems causes of medical errors and harm to patients"

– Institute for Healthcare Improvement, 2006 ¹

"To show that safety is a priority and that the management of an organisation is committed to improvement, executive staff must be visible and active in leading patient safety improvements"

– NPSA, 2004 ²

"Creating high quality workplaces requires great leadership"

– Lord Darzi, for the Department of Health, 2007 ³

Typical issues identified in UK trusts



Insufficient prioritisation of patient safety in board meetings

- *"It isn't first on the agenda, and there is so much to address in every meeting that by the time we get to it we've run out of steam"*

Minimal visibility of board and senior leadership, resulting in staff perception that leaders lack understanding of frontline realities

- *"Does the board – and particularly the non-execs – really have any idea of what it's like down here? How could they, without leaving their ivory towers and coming to see for themselves?"*
- *"They live in a different world to us. I don't believe they really understand the consequences of their decisions at the frontline"*

Lack of a clearly articulated safety strategy

- *"I'm not aware of any kind of strategy in this area – I think we are more reactive than proactive on patient safety issues"*

A clear vision, targets and a plan are the crucial starting point

Example of best practice



Salford Royal NHS Foundation Trust Quality Improvement Strategy

Salford Royal **NHS**
NHS Foundation Trust

University Teaching Hospital

safe • clean • personal

Winner of the Nursing Times/HSJ¹ Patient Safety Award (Changing Culture) 2010

Vision

A vision statement articulating the ambition of the organisation

- To be the safest hospital in the UK

Aims

High-level targets against key safety aims over a defined period

- To save 1,000 lives over three years
- To avoid 10,000 unintentional harm events

Projects

A short, prioritised programme of projects reviewed annually

- Agreed in conjunction with staff
- Appropriately resourced
- Using metrics tracked against clear timelines
- Including clinical and non-clinical interventions

	J	F	M	A	M	J	J
QI Launches							
cdiff				LS			
Hip & Knee	P	EM	PID	LS	LS	LS	
Acutely unwell	EM	PID		LS		LS	
Stroke	P	P	EM	PID			

1. Health Service Journal

Sources: Salford Royal NHS Foundation trust website; Board Safety Project 2010 analysis

Leadership walkarounds increase safety awareness

Examples of best practice

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Resourcing

Example of best practice...

Executives and senior leadership at McLeod Health in the US have conducted daily leadership walkarounds since 2003 ¹

- Board members meet at 8am daily and spend 10-15 minutes:
 - meeting staff and patients
 - asking questions
 - identifying issues
- They then return to the boardroom and agree next steps
- Materials are prepared in advance by the Patient Safety Team



...and potential benefits

According to the NPSA,² the benefits of walkarounds include :

- An increased awareness of safety issues and patient safety concepts among all staff
- A demonstration to staff that safety is a high priority for senior management
- The fostering of an open and fair culture by encouraging staff to discuss incidents openly
- A way of gathering information and ideas from staff to make patient care safer

Note: McLeod Health is a regional medical centre in South Carolina

Sources: 1. Institute for Healthcare Improvement, *Pursuing perfection: Report from McLeod Regional Medical Center on leadership patient rounds*; McLeod Health website www.mcleodhealth.org;

2. NPSA, *Seven steps to patient safety*, 2004; Board Safety Project 2010 analysis

Actions the board can take



Leadership



Staff
engagement



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Resourcing

Make safety an explicit and visible priority on the leadership agenda

- Issue a statement prioritising patient safety, to be communicated to all staff
- Put patient safety first on the board agenda
- Use appropriately selected patient stories to set the tone; e.g. a recent real story of either a patient safety incident or success
- Conduct regular, structured safety walk-arounds by board and senior leadership

Articulate a clear, crisp plan to drive the patient safety strategy

- State the "case for change" for improving patient safety
- Base it on a prioritised list of clinical and non-clinical projects, reviewed yearly
- Develop it in conjunction with staff and patients
- Agree targets on lives saved and harm avoided, with clear timelines
- Document the plan fully and distribute it widely throughout the organisation

Empower the clinical leadership

- Give clinical leaders accountability for patient safety in their area, and empower them with the tools and information to deliver it; e.g. by putting patient safety into staff appraisal processes

Goal

Clear and visible leadership from the board

Staff engagement – what others have said about it



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

"It is possible for improvements to be fully integrated in frontline services by engaging and involving healthcare workers"

– House of Commons Health Committee, 2009 ¹

"At Mid Staffordshire, in the case of the medical staff, many appear to have been disengaged from the management process"

– Robert Francis QC, 2010 ²

"A safety culture is where staff in an organisation have a constant and active awareness of the potential for things to go wrong"

– NPSA, 2004 ³

"What makes 'after action' reviews [team-based debriefs after an event] so powerful is that ... they give people an opportunity to share their views and to be heard"

– NHS, 2005 ⁴

Typical issues identified in UK trusts



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

Ineffective communication flow across the organisation

- *"The information is too watered down once it has filtered down the management layers – it doesn't reach the frontline"*
- *"We get over 400 emails a day, so no wonder people haven't read the latest safety bulletin"*

Lack of involvement of clinical leadership

- *"Management? They get in the way with all these initiatives for which I have yet to see any evidence whatsoever"*

Disengaged junior doctors

- *"I have no idea about the trust's safety plans. I've only worked nights since I arrived, and anyway I'm only here for a month"*
- *"We organised a great patient safety learning event, and not a single junior doctor turned up"*
- *"They don't tend to report patient safety incidents – less than 4% of our voluntary reporting comes from junior doctors "*

Engaging junior doctors is a challenge for trusts

Example issue

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Multiple factors, often externally driven, ...

Externally driven rotations

- Frequency and duration of rotations are determined by deaneries

European Working Time Directives

- Shift-based working can reduce the time that junior doctors spend as a team and with consultants

Reduced influence of consultants over the selection process and competency reviews

- Interviews and appraisals are driven centrally, thereby reducing ownership by local consultants

...contribute to the challenge that trusts face

Lack of allegiance

- *"They're only here for four months, and don't feel part of the trust"*

Lack of teamwork

- *"They clock on and clock off - they aren't part of a team structure any more, and we never see them"*

Lack of consultant leadership

- *"We might never meet our juniors, the way things are now with these shift patterns"*
- *"We don't have any control over who works for us any more"*

Steps can be taken internally to engage junior doctors

Examples of best practice

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Aim

Example solutions

Improved introduction to trust values on patient safety

Send guidance or "contract" to junior doctors before the start of placement, detailing ...

- what is expected of them (e.g. ways of working, Trust values)
- what they can expect (e.g. support offered)

Review the induction of junior doctors ...

- both at trust level and at local directorate level

Increased consultant awareness and support of junior doctors, with improved teamwork

- **Distribute photos and rotas of incoming junior doctors to all consultants**
- **Name a consultant "buddy" for all juniors**
 - with agreed, fixed, ten-minute weekly check-ins
- **Institute local team-based events**
 - e.g. learning sessions on clinical area safety

Increased involvement of junior doctors in patient safety initiatives

- **Appoint patient safety champions**
- **Mandate all foundation-year doctors to complete a patient safety project or case study**
 - Incentivise them with awards and the opportunity of a publication

Good communication can improve staff engagement

Examples of best practice

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Resourcing

Abington Memorial Hospital's approach to communication



Winner of the American Nurses Credentialing Center's Magnet Prize, 2008
Awarded Magnet re-designation, effective until 2012

Approach

A patient safety "theme of the month" is agreed by the board and aligned with the annual plan and training scheme

- Educational materials are developed for each theme by the Safety Team and information is disseminated daily via:
 - Screensavers and bulletin boards
 - A patient safety newsletter, articles in staff journals
 - Patient safety coaches, who commit to informing ten members of staff on the theme each month

Additional measures

Systems are in place to capture ongoing input from staff:

- "Engage Every Employee" cards are sent to all staff
 - Staff are encouraged to write three goals they intend to commit to for improving safety in their area
- Multiple avenues exist for staff to report safety concerns
 - Dialling S-A-F-E on internal phones
 - Electronic reporting and suggestions, via an intranet link
 - Suggestion boxes around the hospital

Note: Abington Memorial Hospital is a 665-bed regional referral centre and teaching hospital in Pennsylvania

Sources: Abington Memorial Hospital website: www.amh.org/ ; Board Safety Project 2010 analysis

Actions the board can take



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

Put in place measures to increase frontline staff engagement

- Agree an effective approach to communicating patient safety information
- Create forums for effective dialogue on patient safety; e.g. open question-and-answer sessions with the board
- Appoint safety champions at the frontline; e.g. selected staff members responsible for conveying patient safety information to the frontline

Engage junior doctors on the patient safety agenda

- Incentivise involvement in patient safety projects, for example, with awards and publication opportunities

Maximise opportunities for teamwork, so as to improve staff allegiance

- Ask clinical leaders to create forums for engagement between clinicians, nurses, and management in their areas
- Give direction for a review of existing rotas, in seeking opportunities for maximising the time spent as teams, within existing constraints
- Consider implementing a structured, team-based debrief programme following patient safety incidents; e.g. After-Action Reviews (AARs)

Goal

**Engaged and empowered staff,
accountable for patient safety**

Guidelines & training – what others have said about them

Monitor

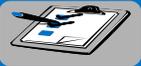
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Leadership



Staff
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Metrics



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Resourcing

"Our systems are too complex to expect merely extraordinary people to perform perfectly 100% of the time. We as leaders have a responsibility to put in place systems to support safe practice"

– James Conway, 2006 ¹

"Human error in the complex world of modern medicine is inevitable. Harm to patients as the result of these errors is not. Checklists allow complex pathways of care to function with high reliability"

– World Health Organisation ²

"Patient safety must be fully integrated into postgraduate medical education and training as a core element"

– House of Commons Health Committee, 2009 ³

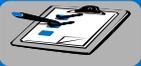
Typical issues identified in UK trusts



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

Excessive number of guidelines, and policies that are difficult to access and navigate

- *"We have thousands of guidelines but most are not user-friendly"*
- *"There aren't enough computers, and when we do get to use one it takes too long to find what we're after"*

Insufficiently structured and formalised handover processes

- *"There isn't enough time built into shifts to allow us to hand over patients with confidence"*

Problematic documentation systems

- *"Patient notes are not filed, not complete, and not fit for purpose"*

Lack of explicit relevant training in patient safety

"Training is focused on mandatory topics like manual handling, instead of falls prevention, for example"

- *"Training should be reinforced with the right online guidelines which staff have been shown how to locate and use"*

Poor handovers are a factor in patient safety incidents

Example issue

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Resourcing

Poor communication and handover contribute to patient safety incidents

Key findings of the National Confidential Enquiry into Patient Outcome and Death (NCEPOD) 2009 ¹ :

- Poor communication was a contributing factor in 13.5% of cases
- Of these cases, 43% were due to communication failures between doctors

Verbal communication alone is not an effective way of handing over patients

Comparison of handover methods ² suggests that:

- Just 2.5% of patient information is retained when the handover method is verbal-only
- 85.5% is retained when the method used is verbal plus note-taking
- 99% is retained when the method includes a printed handout containing all patient information

Clear guidelines can improve handover

Examples of best practice

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Resourcing

Crucial handover is organised...

Adequate time is set aside within working hours

- Up to 30 minutes for acute speciality or Hospital at Night ¹

Handover is attended by a full multidisciplinary team

- A senior clinician leads

A short introductory briefing is included

The location is appropriate and ensures patient confidentiality

...and supported with documentation

A central point provides a cross-trust view (e.g. electronic dashboard linked to ward data) for acute specialities or Hospital at Night

- Unwell/deteriorating patients
- Expected high-risk transfers; e.g. step-down patients and transfers
- Operational issues; e.g. available intensive care unit beds

Crisp templates are ready for patient details

- Identifiers and location (ward, bed)
- Consultant's contact details
- Current diagnosis, investigation results
- Urgency and frequency of review
- Management and resuscitation plan
- Outstanding tasks

1. Hospital at Night is a multidisciplinary team approach to delivering safe patient care at night

Sources: Board Safety Project 2010 analysis; Royal College of Surgeons, *Safe handover: Guidance from the Working Time Directive working party*, 2007; Australian National Clinical Handover Initiative: *Nursing and medical handover in general surgery, emergency medicine and general medicine at the Royal Hobart Hospital – overarching minimum data set*, 2008

Checklists can further reduce patient safety incidents

Examples of best practice



WHO Surgical Safety Checklist¹



Before induction of anaesthesia	Before skin incision	Before patient leaves operating room
(with at least nurse and anaesthetist)	(with nurse, anaesthetist and surgeon)	(with nurse, anaesthetist and surgeon)
<p>Has the patient confirmed his/her identity, site, procedure, and consent?</p> <input type="checkbox"/> Yes	<p><input type="checkbox"/> Confirm all team members have introduced themselves by name and role.</p> <p><input type="checkbox"/> Confirm the patient's name, procedure, and where the incision will be made.</p> <p>Has antibiotic prophylaxis been given within the last 60 minutes?</p> <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	<p>Nurse Verbally Confirms:</p> <input type="checkbox"/> The name of the procedure <input type="checkbox"/> Completion of instrument, sponge and needle counts <input type="checkbox"/> Specimen labelling (read specimen labels aloud, including patient name) <input type="checkbox"/> Whether there are any equipment problems to be addressed
<p>Is the site marked?</p> <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	<p>Anticipated Critical Events</p> <p>To Surgeon:</p> <input type="checkbox"/> What are the critical or non-routine steps? <input type="checkbox"/> How long will the case take? <input type="checkbox"/> What is the anticipated blood loss?	<p>To Surgeon, Anaesthetist and Nurse:</p> <input type="checkbox"/> What are the key concerns for recovery and management of this patient?
<p>Is the anaesthesia machine and medication check complete?</p> <input type="checkbox"/> Yes	<p>To Anaesthetist:</p> <input type="checkbox"/> Are there any patient-specific concerns?	
<p>Is the pulse oximeter on the patient and functioning?</p> <input type="checkbox"/> Yes	<p>To Nursing Team:</p> <input type="checkbox"/> Has sterility (including indicator results) been confirmed? <input type="checkbox"/> Are there equipment issues or any concerns?	
<p>Does the patient have a:</p> <p>Known allergy?</p> <input type="checkbox"/> No <input type="checkbox"/> Yes	<p>Is essential imaging displayed?</p> <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable	
<p>Difficult airway or aspiration risk?</p> <input type="checkbox"/> No <input type="checkbox"/> Yes, and equipment/assistance available		
<p>Risk of >500ml blood loss (7ml/kg in children)?</p> <input type="checkbox"/> No <input type="checkbox"/> Yes, and two IVs/central access and fluids planned		

A pilot study demonstrated that following the introduction of the checklist²:

- Major complications fell from 11% to 7%
- Inpatient deaths fell by over 40% (from 1.5% to 0.8%)

Actions the board can take



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



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Resourcing

Give support to clinical area leaders in their deploying of key guidelines:

- Ensure the availability of the requisite materials, including:
 - information on myocardial infarction care pathways
 - customised safe surgery checklists
- Check that the guidelines are of optimal quality:
 - developed with staff input, for practicality and improved ownership
 - supported with an evidence base where possible, for clinician buy-in
 - implemented with appropriate training on rationale and use

Prioritise and resource efforts to improve the safety of systems and processes across the organisation:

- Enable formalised and structured handover processes
- Expedite the use of automated prescriptions and patient record systems

Give direction for a review of patient safety training:

- Enhance and encourage dedicated patient safety training sessions
- Check that full use is made of the support of internal and external NHS resources, as appropriate

Goal

**Institutionalised guidelines,
systems and training**

Safety metrics – what others have said about them



Leadership



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engagement



Guidelines
& training

**Safety
Metrics**



Learning
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Resourcing

"Every member of the board needs sufficient information at a high enough level to be confident that the organisation is well run, but not so much information that it becomes difficult to tell what is important"

– *The Intelligent Board*, 2006 ¹

"Seek usefulness not perfection – measurement should be used to focus and speed improvement up, not to slow things down"

– Patient Safety First campaign, 2009 ²

"The doctors were in my office angry about the publication ... but transparency [of metrics] helped make dramatic improvements"

– Wisconsin Collaborative for Healthcare Quality ³

Typical issues identified in UK trusts



Leadership



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engagement



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Metrics



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Resourcing

Large volume of data seen at board level

- *"I get sent volumes of material to read and I can't tell what is important. It isn't sufficiently prioritised"*
- *"We have regulatory requirements to track certain metrics and see certain reports, so in the end it all adds up"*

No "perfect" metrics

- *"The data quality available to us is pretty poor"*
- *"Voluntary incident reporting captures only a fraction of incidents – as little as 10% of what happens is reported"*
- *"We use HSMRs but they are dependent on the quality of coding"*
- *"We are going to start using the Global Trigger Tool to give us a rate of harm, but it will require resources"*

Insufficient transparency

- *"We have kept away from displaying data for fear of triggering the wrong reactions from the public"*

Trusts are required to track multiple safety metrics

Examples of current metrics

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Resourcing

Health Protection Agency

- Overall C. difficile rates
- Overall MRSA bacteraemia rates
- Orthopaedic surgical site infection rates

CQC core standards, including

- Safety alert communication and implementation:
 - e.g. *"relevant communications requiring action concerning patient safety ... are implemented within the required timescales"*
- Incident reporting and follow-up
- NICE Interventional Procedures guidance implementation
- Infection prevention and control
- Use and decontamination of medical devices
- Medicines management

PCTs

- Commissioning for Quality and Innovation (CQUIN) indicators (include VTE rates)

NPSA

- Patient safety incidents:
 - Type, volume and severity
- Never ever events ¹
- Reporting consistency, rate, timeliness
- Alert implementation

Others, including:

- Dr Foster – HSMR
- Renal MRSA rates – UK Renal Registry

Monitor

- C. difficile year-on-year reduction targets
- MRSA bacteraemia rate maintenance targets
- MRSA screening rates
- Thrombolysis targets

1. Based on NPSA never events: wrong site surgery, retained instrument post procedure, wrong route chemotherapy, misplaced oro/naso gastric tube, inpatient suicide, maternal death post elective C-section, IV administration of mis-selected KCL

Sources: <http://www.nrls.npsa.nhs.uk/resources/collections/never-events/>; Board Safety Project 2010 analysis

Global Trigger Tool can provide rate of harm over time

Example of best practice



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

The IHI Global Trigger Tool

- The tool provides a retrospective review of a random sample of inpatient records using "triggers" to identify avoidable patient safety incidents
- Level of harm is tracked over time (rate per 1,000 patients) to monitor progress

Trigger	+	Event Description and Severity E-I	
General care module			
G 1		Lack of early warning score or early warning score requiring response	
G 2		Any patient fall	
G 3		Decubiti	
G 4		Readmission to hospital within 30 days	
G 5		Shock or cardiac arrest	
G 6		DVT/PE following admission evidenced by imaging +/-or D dimmers	
G7		Complication of procedure or treatment	
G8		Transfer to higher level of care	
Surgical care module			
S 1		Return to theatre	
S 2		Change in planned procedure	
S3		Removal/Injury or repair of organ	
Intensive care module			
I 1		Readmission to ICU or HDU	
I 2		Unplanned transfer to ICU or HDU	
		Patient identifier	
		Total events	
		Total length of stay	

Trigger	+	Event Description and Severity E-I	
Medication module			
M 1		Vitamin K	
M 2		Naloxone	
M 3		Flumazenil	
M 4		Glucagon or 50% glucose	
M5		Abrupt medication stop	
Lab test module			
Haematology			
L1		High INR (>5)	
L 2		Transfusion	
L3		Abrupt drop in Hb or Hct (>25%)	
Biochemistry			
L4		Rising urea or creatinine (>2x baseline)	
L5		Electrolyte abnormalities	
L6		Na ⁺ <120 or >160	
L6		K ⁺ <2.5 or >6.5	
L7		Hypoglycaemia (<3mmol/l)	
L8		Raised Troponin (>1.5 ng/ml)	
Microbiology			
L9		MRSA bacteraemia	
L10		C. difficile	
L11		VRE	
L12		Wound infection	
L13		Nosocomial pneumonia	
L14		Positive blood culture	

Publishing metrics can help drive change

Examples of best practice

Monitor

Independent Regulator
of NHS Foundation Trusts



Leadership



Staff
engagement



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& training

Safety
Metrics



Learning
cycle



Resourcing



"At Cincinnati Children's, transparency means being willing to talk about the bad, as well as the good. Transparency is a key driver of transformational change."

Screen savers number the days since the last patient serious safety incident, and link to details of recent incidents and the key lessons learned



Up-to-date safety metrics are published in hospital lobbies



Actions the board can take



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

Agree a prioritised list of key metrics for the board to monitor

- Track progress consistently over time and against benchmarks
- Display findings in a simple, user-friendly format

Ensure that the metrics are tailored to different levels of governance

Increase the detail at board sub-committee level, so granularity is appropriate for each clinical area

Check that the metrics are developed in conjunction with staff

- Make sure that the staff are involved in selecting and developing the metrics – both outcome and process metrics as appropriate - in order to maximise the metrics' relevance and promote buy-in

Consider resourcing and implementing the Global Trigger Tool

Publish metrics widely and transparently across the organisation

- Make them visible to staff and patients, and to the public as well

Goal

**Carefully selected priority metrics,
rigorously tracked and published**

The learning cycle – what others have said about it



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

"Serious deficiencies have been identified [at Mid Staffordshire] in the complaints and incident-reporting process. These have included a lack of feedback to the staff involved... and a failure to report matters with sufficient clarity to the board"

– Robert Francis QC, 2010 ¹

"The response system is more important than the reporting system. ... Without evidence of incident reporting leading to improvements, it is difficult to encourage or sustain good levels of reporting by staff"

– NPSA, 2008 ²

Typical issues identified in UK trusts



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

Insufficient follow-up and feedback to staff following reporting

- *"I was told I was the first ward manager ever to feed back on an incident report"*
- *"At the moment a lot goes into the database, but what comes out when you've gone to the time and effort of putting it in is not always clear"*

Ineffective or unsustainable implementation of agreed actions following investigations

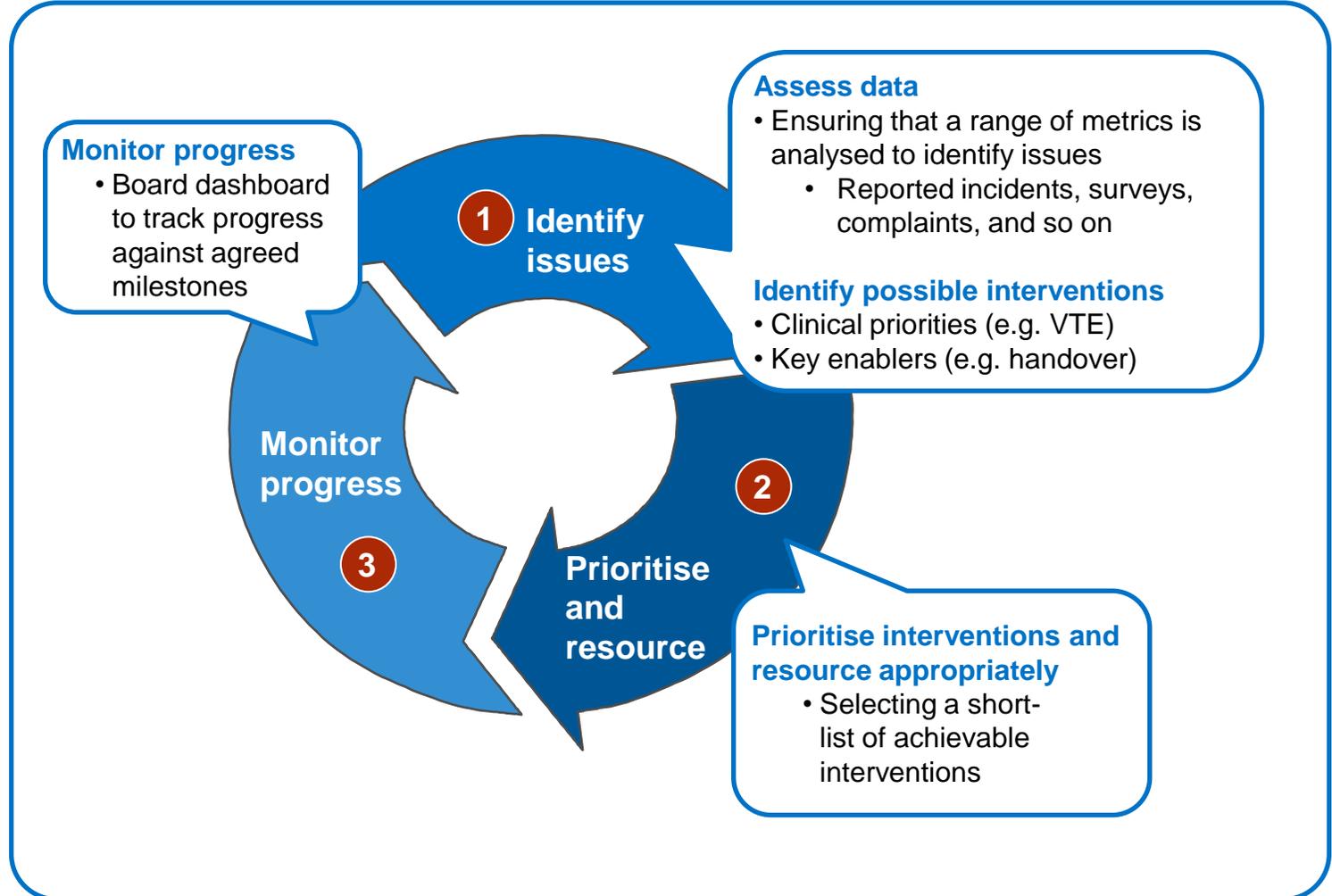
- *"We agree what we're going to do, but it often doesn't end up happening"*
- *"Is there any action? – that's the question. I think it's hit-and-miss"*

Failure to embed learnings

- *"We think we've followed up, but then we get the same incidents again!"*

A robust learning loop is critical

Finding solutions to typical issues



Team-based debrief programmes can help improve safety

Examples of best practice

Monitor

Independent Regulator
of NHS Foundation Trusts



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

UCLH NHS Foundation Trust After Action Review Programme

University College London Hospitals 
NHS Foundation Trust

Winner of Dr Foster overall hospital Trust and Foundation Trust of the year, 2009

Board-supported implementation

- Created by US Military to debrief personnel after incidents
- Core theme: the collective role and behaviour of teams in a debrief culture
- Training implemented across organisation, with 1 in 20 staff trained to facilitate AARs

Trust-wide communication effort

Four principles of AAR

1. What did you expect would happen?
2. What, from your perspective, did actually happen?
3. Why, in your opinion, was there a difference between the two?
4. What can we learn from this experience for the future?

BEING AN AAR CONDUCTOR

iaar iaarlive

Advanced Clinical Leadership Simulation Training System

Staff report positive impact ¹

- 95% felt AARs could impact positively on future clinical care
- 90% felt they promoted a climate of openness to change
- 86% felt they changed the way staff contributed to quality improvement

Actions the board can take



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

Proactively manage risk on the basis of a robust interrogation of data

- Use multiple data sources, such as voluntary reports, complaints, audits

Give direction for rigorous root-cause analysis of patient safety incidents

- Make investigations rapid and visible, with a focus on lessons learned vs apportioning blame
- Involve key stakeholders, including patients and families as appropriate

Seek assurance that incidents are appropriately followed up

- Ensure that training and support are offered to staff involved
- Check that feedback is given and key learnings are disseminated effectively
- Check that responses are segmented according to the severity of the incident in question
- Ensure that actions are implemented visibly and promptly

Consider resourcing and implementing a structured, team-based debrief programme following patient safety incidents

- Explore the option of AARs (After Action Reviews)

Goal

**Rapid, fair, visible and sustained
response to incidents and risks**

Resourcing – what others have said about it



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

***"Consultant involvement becomes less frequent at night,
leading to instances of poor decision making ...
Seniority of staff should be appropriate"***

– NCEPOD, 2009 ¹

***"Despite the huge increase in the number of staff in the NHS,
there is evidence that inadequate staffing levels in some cases
have been a significant factor in undermining the safety of care"***

– House of Commons Health Committee, 2009 ²

***"To effectively execute projects throughout an organisation,
leaders must devote resources"***

– IHI, 2008 ³

Typical issues identified in UK trusts

Resourcing

Monitor

Independent Regulator
of NHS Foundation Trusts



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Metrics



Learning
cycle



Resourcing

Inappropriate allocation of staffing

"We have enough staff but they are not in the right places at the right time – we are let down by our rostering system"

- *"If we are expected to provide 24-hour care, it is essential to have senior medical support out of hours"*

Inadequate staffing levels

- *"We simply don't have enough qualified nursing staff"*

Inability of the infrastructure to cope with the level of activity

- *"We lack beds, especially in A&E – it becomes overcrowded and there are knock-on effects throughout the hospital, leading to increased numbers of outliers"*

Insufficient resources to deliver patient safety appropriately

- *"There is no quality department to provide support on implementation ... the DIY approach can lead to inappropriate outcomes"*

Boards will need to resource interventions appropriately

Examples of interventions



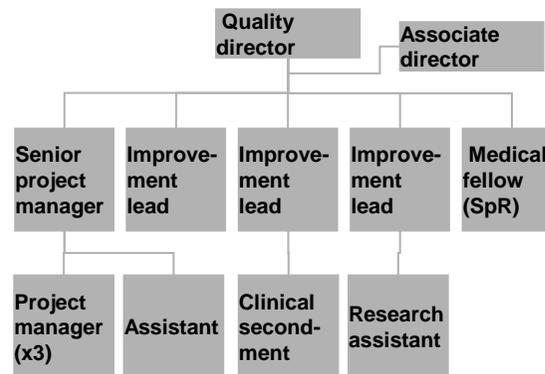
Example intervention	Examples of resources to initiate	Examples of resources to be maintained
Global Trigger Tool	<p>Training for at least 3 individuals</p> <ul style="list-style-type: none"> e.g. half-day each 	<p>At least 3 individuals allocated 2 half-days per month for reviews</p> <ul style="list-style-type: none"> Independent validation by at least 1 clinician
Board walk-arounds	<p>Set up each quarter</p> <ul style="list-style-type: none"> Admin half-day to coordinate diaries Patient safety team day to prep. materials 	<p>At least 3 board members to spend 1 hour per week on walk-arounds</p>
After Action Review programme	<p>Training for selected frontline staff</p> <ul style="list-style-type: none"> e.g. 1/50 staff trained over 1 day 	<p>Time to execute AARs</p> <ul style="list-style-type: none"> e.g. 2-3 AARs of ~10-15 minutes across the organisation per day

Boards should also consider dedicated safety FTEs

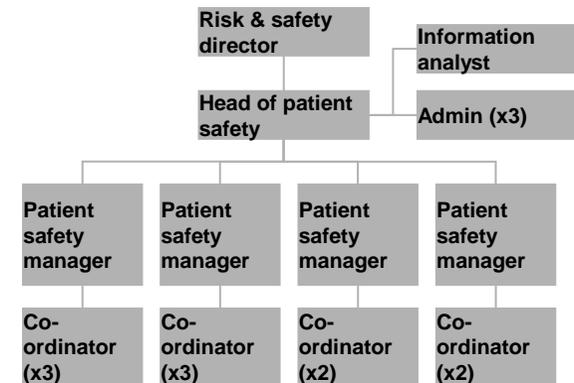
Examples of best practice



UK trust example 800 beds, 12 dedicated FTEs



UK trust example 1100 beds, 15 dedicated FTEs



Role of patient safety department includes:

- Development and implementation of improvement projects
- Patient safety data analysis
- Dissemination of lessons learned from investigations of incidents
- Quality training
- Compliance (e.g. CQC)
- Involvement in the Global Trigger Tool

Actions the board can take



Leadership



Staff
engagement



Guidelines
& training

Safety
Metrics



Learning
cycle



Resourcing

Implement a staffing allocation system to match staff levels and experience to need, proactively and flexibly

- For example, to account for activity levels, bed occupancy, shift patterns, patient acuity

Invest in sufficient levels of appropriately qualified staff to deliver safe patient care

- For example, to ensure sufficient access to senior medical staff out of hours

Prioritise resources to ensure an appropriate supporting infrastructure

- For example, to keep medical equipment and ward facilities always available

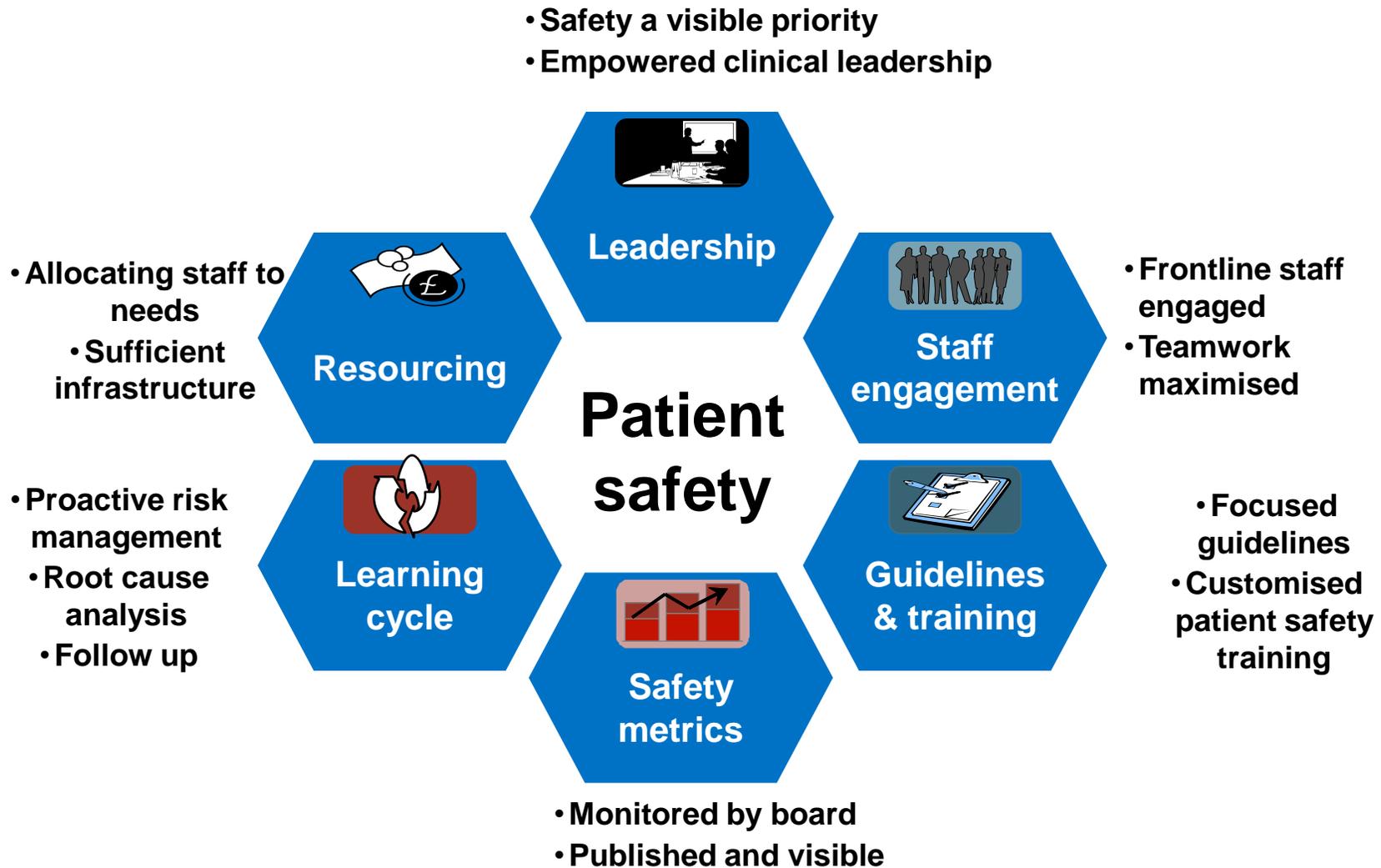
Ringfence or invest in dedicated safety resources to drive projects in order to help the frontline deliver safe patient care

- For example, to ensure the implementation of patient safety projects, and follow up on patient safety incidents

Goal

**Infrastructure and resourcing
optimised for safe patient care**

What does success look like?



How can boards monitor progress on the key actions?

Examples of indicators



Leadership

- Selected metrics; e.g. percentage of time spent on patient safety in board meetings
- Staff surveys; e.g. *The board has articulated a clear patient safety plan for this trust ...*
- Patient surveys; e.g. *Did you feel that your safety was a priority for this organisation?*



Staff engagement

- Selected metrics; e.g. staff sick days, staff compliance with key policies
- Staff surveys; e.g. *In this trust, we work together as a team to get things done ...*
- Feedback from line managers and safety champions



Guidelines & training

- Selected metrics; e.g. percentage of patients treated using best practice
- Staff surveys; e.g. *Our procedures and systems are good at preventing errors ...*
- Patient surveys; e.g. *Were you aware of any staff not following our hand-washing policy?*

Safety Metrics

- Clear, concise set of safety metrics (including external benchmarks) vetted by the board
- Staff surveys; e.g. *I am aware of our current patient safety record ...*
- Patient surveys; e.g. *Is patient safety information transparent in this organisation?*



Learning cycle

- Selected metrics; e.g. percentage of incidents subjected to root-cause analysis; average time taken to provide follow-up on a reported incident
- Staff surveys; e.g. *We are given feedback following patient safety incidents ...*



Resourcing

- Selected metrics; e.g. time taken for admissions to be reviewed by senior medical staff; resources dedicated to patient safety
- Staff surveys; e.g. *We have enough staff for the workload in this area ...*

The role of boards in improving patient safety

Executive summary	Page 5
Why patient safety needs to be a higher priority	Page 7
Six elements crucial for delivering safe patient care	Page 13
<ul style="list-style-type: none">• Leadership• Staff engagement• Guidelines & training• Safety metrics• The learning cycle• Resourcing	
How to take these elements forward in a trust	Page 51
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Approach to initiating a board safety project in your trust

Almost all NHS trusts have improved the safety of patient care by addressing one or many of the levers discussed (though none has yet addressed everything)

The challenge that boards face is how to progress the journey in a complex environment

- The main complication is competing pressures, e.g. financial and regulatory targets

A promising approach is to set the ambition, and prioritise and resource a select set of patient safety interventions on an ongoing basis

- A few incremental interventions drive the greatest organisational change

To prioritise appropriately, boards need to understand the following key elements:

- The starting point
- The current gaps in fulfilling local requirements and meeting best practices
- Available resources

What is needed for initiating the approach ¹

1

Analysis of trust information

- Existing data and materials (e.g. incident data)
- Direct input from frontline staff (e.g. surveys, interviews, focus groups)

2

Resources set aside for ~3-4 months

- Project team resources
- Engagement and accessibility of staff
- Workshops with the board and senior leadership teams

3

An initial project plan

- Activities
- Milestones
- Timescale (e.g. 3-4 months)

1. This section is based on the learnings from the initial four participating Trusts, and the methodology used during that pilot

1 Types of data used for understanding the current patient safety context

Review existing trust materials, including:

- Board reports and minutes
- Existing strategy/initiatives/projects
- Metrics; e.g. safety metrics, clinical outcome metrics
- Incident-reporting data and analysis; e.g. trends, root-cause analysis, Serious Untoward Incidents (SUIs)
- Risk registers
- Organisation charts and current safety roles/responsibilities
- Staffing data; e.g. allocation by shift and locations
- Cultural survey/assessment output
- Patient safety training curriculum

Goal

Quantitative analysis of the information, to gain insight into the context, potential gaps and issues

1 Possible ways to solicit staff input

Suggested formats to capture information from staff

~25-30 one-to-one interviews:

- Board members (~6 interviews)
- Management (~4 interviews)
- Clinicians (~8 interviews)
- Nursing staff (~6 interviews)
- Other healthcare professionals (~6 interviews)

~3 focus groups, with these characteristics:

- Drawn from frontline staff from across clinical areas
- Each containing up to 10 people
- Run on a single day

Example questions for discussion

- How do you think your trust performs on patient safety?
- How has this changed over time?
- What initiatives and interventions to improve patient safety have been successful, and why?
- What are the barriers to improving patient safety?
- What in your view is the role of the board in delivering safe patient care?
- Are you aware of a patient safety ambition or plan for this trust?

Goal

Qualitative analysis from the interviews, to gain insight into the context, potential gaps and issues

2 Resources required and an example set-up for the project



- *Suggest an administrator or assistant from within the trust to coordinate logistics*
- *Consider external resources for help in the preparation of materials and facilitation*

Review data

- **2-3 staff** to interpret and analyse the information

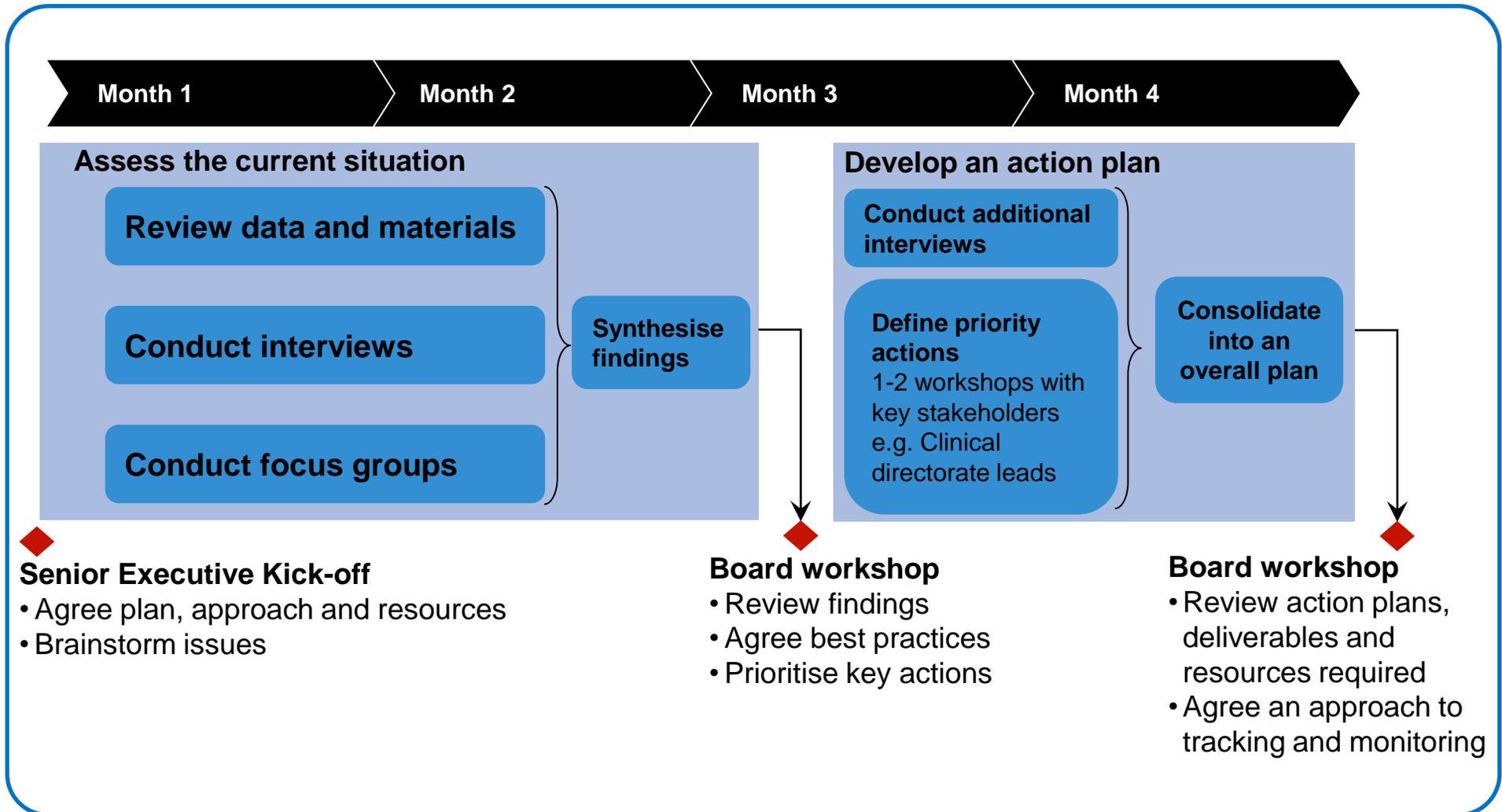
Interviews

- **2-3 interviewers**
- **~30 interviewees** across the trust

Focus Groups

- **1 moderator** (external, if possible)
- **~30 frontline staff** for half day session each

3 An example of a project plan



The role of boards in improving patient safety

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Name

- Lucian Leape
- Peter Pronovost
- Don Berwick
- James Conway
- Tony Giddings
- Pauline Philip
- Maxine Power
- Stefen Engqvist
- Christine Kilpatrick
- David Dalton
- Malcolm Lowe-Lauri
- David Fillingham
- Sue Sutherland
- David Fish
- Celia Ingham Clark
- Peter Donaldson
- Rory Shaw
- Manjit Obhrai
- John Pickles

Role and organisation

- Adjunct Professor of Health Policy, Harvard School of Public Health
- Director, Quality & Safety Research Group, Johns Hopkins University
- President, Institute for Healthcare Improvement (IHI)
- Senior Vice President, IHI
- Chairman of the Alliance for the Safety of Patients
- Patient Safety Executive Secretary, WHO
- Director, NW Improvement Alliance
- Medical Director, Karolinska Institute, Sweden
- CEO, Royal Melbourne Children's Hospital
- CEO, Salford Royal NHS Foundation Trust
- CEO, University Hospitals of Leicester NHS Trust
- CEO, Royal Bolton Hospital NHS Foundation Trust
- CEO, Poole Hospital NHS Foundation Trust
- Medical Director, UCL Partners NHS Trust
- Medical Director, The Whittington Hospital NHS Trust
- Medical Director, Ipswich Hospital NHS Trust
- Medical Director, North West London Hospitals NHS Trust
- Medical Director, Mid Staffordshire NHS Foundation Trust
- Medical Director, Luton and Dunstable Hospital NHS Foundation Trust

Bibliography: works cited in this publication (I)

- Abington Memorial Hospital website: www.amh.org/
- Australian National Clinical Handover Initiative, *Nursing and medical handover in general surgery, emergency medicine and general medicine at the Royal Hobart Hospital – overarching minimum data set; Submitted to the Australian*
- *Commission on Safety and Quality in Healthcare*, 2008
- Bennett et al., “*Cost of pressure ulcers in the UK*”, *Age and Ageing* 33(3): 230-35, 2004
- Bhabra G et al., “*An experimental comparison of handover methods*”, *Ann R Coll Surg Engl* 89: 298-300, 2007
- Board Safety Project 2010 analysis of existing guidelines, reports and publications
- Board Safety Project 2010 interviews
- Botwinick et al., *Leadership guide to patient safety*, IHI Innovation Series white paper, 2006
- Cincinnati Children's Hospital website, www.cincinnatichildrens.org;
- Lord Darzi, *Our NHS, our future – Next stage review interim report*, 2007
- Department of Health, *Governing the NHS – A guide for NHS Boards*, 2003
- *Dr Foster data on HSMRs and observed vs expected deaths 2008/2009*
- Griffin FA, Resar RK, Cambridge, MA, Institute for Healthcare Improvement: *IHI Global Trigger Tool for Measuring Adverse Events* (UK version), 2008 (www.ihl.org)
- Haynes et al., “*A surgical safety checklist to reduce morbidity and mortality in a global population*”, *NEJM* 5:360: 491-99, 2009
- House of Commons Public Accounts, Management & control of HCAI in NHS Trusts
- Institute for Healthcare Improvement, *Pursuing perfection: Report from McLeod Regional Medical Center on leadership patient rounds*; McLeod Health website www.mcleodhealth.org
- Institute for Healthcare Improvement, *Seven leadership leverage points*, 2008
- Leape et al., “Preventing medical injury”, *Qual Rev Bull.* 19(5): 144-49, 1993
- Monitor, *The NHS Foundation Trust Code of Governance* (updated), 2010
- National Audit Office, *A safer place for patients: Learning to improve patient safety*, 2005

Bibliography: works cited in this publication (II)

- National Confidential Enquiry into Patient Outcome and Death, *Caring to the end? A review of the care of patients who died in hospital within four days of admission*, 2009
- NHS Evidence – knowledge management. *After action reviews*. 2005
- NHS Litigation Authority website, www.nhs.uk/nhsli/
- NPSA and IHI, *Patient Safety First campaign: Measurement for improvement*, 2009
- NPSA, information on “never events”, <http://www.nrls.npsa.nhs.uk/resources/collections/never-events/>
- NPSA, *Organisation patient safety incident reports*, March 2010
- NPSA, *Seven steps to patient safety*, 2004
- OECD, *Health care quality indicators project: patient safety indicators report*, Health working papers no.47, 2009
- Øvretveit, J. *Does improving quality save money?* Health foundation, 2009
- Royal College of Surgeons, *Safe handover: Guidance from the Working Time Directive working party*, 2007
- Salford Royal NHS Foundation Trust, *Quality improvement strategy 2008-2011* – Salford Royal NHS Foundation Trust website, <http://www.srht.nhs.uk/>
- [Scottish Patient Safety Alliance](http://www.scottishpatient.org/)
- Tadbir et al., *From Battlefield to bedside: A pilot of After Action Review at the clinical frontline*, University College London Hospitals NHS Foundation Trust, 2009
- University College London Hospitals NHS Foundation Trust, *Annual Report and Accounts 2009*
- University College London Hospitals NHS Foundation Trust staff newsletter
- [US National Patient Safety Foundation](http://www.uspatient.org/), 2000
- Vincent et al., “*Adverse events in British hospitals: Preliminary retrospective record review*”, *BMJ* 322: 517-19, 2001
- WHO World Alliance for Patient Safety, *2nd Global patient safety challenge – Safe surgery saves lives, surgery safety checklist*, 2009 edition

Recommended resources: selected guidelines and publications

Name

Organisation/Source

[100,000 and 5 million lives campaigns](#)
[Act on Reporting](#)

Institute for Healthcare Improvement (IHI)
NPSA (National Patient Safety Agency) and
The NHS Confederation

[High Quality Care for All](#)
[Investigations into Mid Staffordshire NHS Foundation](#)
[Trust](#)

Lord Darzi for the Department of Health
Healthcare Commission, Francis QC report

[Patient Safety First campaign](#)

NPSA and NHS Institute for Innovation and Improvement

[Patient Safety Report](#)

House of Commons Health Select Committee

[Safer Patients Initiative Campaign](#)

Health Foundation and Institute for Healthcare Improvement

[Seven Steps to Safer Patients](#)

NPSA

[Taking it on Trust](#)

Audit Commission

[The Intelligent Board](#)

NHS Appointments Commission and Dr Foster

[To Err Is Human](#)

Institute of Medicine

[WHO World Alliance for Patient Safety](#)

World Health Organisation