The NHS Patient Safety Strategy

Safer culture, safer systems, safer patients

July 2019

NHS England and NHS Improvement

The NHS Long Term Plan says that when organisations work together they provide better care for the public. That is why on 1 April 2019 NHS Improvement and NHS England united as one – our aim, to provide leadership and support to the wider NHS. Nationally, regionally and locally, we champion frontline staff who provide a world-class service and constantly work to improve the care given to the people of England.

Contents

Foreword

> "We are not here to curse the darkness, but to light the candle that can guide us through that darkness to a safe and sane future." (John F Kennedy, 1960)

JFK's quote describes our patient safety journey in the NHS, towards understanding and proactivity, from talking about harm to talking about safer systems that provide the right care, as intended, every time and learning from what works, not just what does not. It also speaks to the idea of doing that in a just culture where psychological safety means we will hear more, learn more and can act more to improve care.

Too often in healthcare we have sought to blame individuals, and individuals have not felt safe to admit errors and learn from them or act to prevent recurrence. The willingness to support the development of this strategy, however, has amply demonstrated people's desire to make the NHS safer.

The opportunity is huge. Hogan et al's research[1] from 2015 suggests we may fail to save around 11,000 lives a year due to safety concerns, with older patients the most affected. The extra treatment needed following incidents may cost at least £1 billion.

The Secretary of State asked us to develop a new Strategy for Patient Safety as a 'golden thread' running through healthcare. We consulted you on a set of ideas in December 2018 and you were clear and generous in your responses (see Annex 1). We received 527 contributions from organisations and individuals (staff, patients and carers). We attended stakeholder meetings and engagement events. We held workshops with staff, patients and senior leaders across the country. We hosted online discussions. We have listened and changed our plans.

This is not a document written by us telling you what you should do. It is rather a document curated by us on behalf of the NHS and is a statement of our collective intent to improve safety by recognising that to make progress, we must significantly improve the way we learn, treat staff and involve patients.

It does not include everything everyone told us but is a really worthwhile step in helping us make the NHS ever safer. We will need to adapt it over time, but it will help us along the way and help the delivery of safer care for all.

Aidan Fowler, NHS National Director of Patient Safety

[1] Hogan et al (2015) using 2009 and 2012/13 data adjusted to include A&E, outpatients, day surgery. Adjustment uses ratio of inpatient to other deaths from incident reporting data (see Appendix 1).

Summary

Patient safety has made great progress since the publication of *To err is human*[2] 20 years ago but there is much more to do. The NHS does not yet know enough about how the interplay of normal human behaviour and systems determines patient safety. The mistaken belief persists that patient safety is about individual effort. People too often fear blame and close ranks, losing sight of the need to improve. More can be done to share safety insight and empower people – patients and staff – with the skills, confidence and mechanisms to improve safety. Getting this right could save almost 1,000 extra lives and £100 million in care costs each year from 2023/24. The potential exists to reduce claims provision by around £750 million per year by 2025.

Addressing these challenges will enable the NHS to achieve its safety vision; **to continuously improve patient safety**. To do this the NHS will build on two foundations: a **patient safety culture** and a **patient safety system**. Three strategic aims will support the development of both:

- improving understanding of safety by drawing intelligence from multiple sources of patient safety information (**Insight**)
- equipping patients, staff and partners with the skills and opportunities to improve patient safety throughout the whole system (**Involvement**)
- designing and supporting programmes that deliver effective and sustainable change in the most important areas (**Improvement**).

The actions we – the NHS – will take under each of these aims are set out below.

Insight

The NHS will:

- adopt and promote key safety measurement principles and use culture metrics to better understand how safe care is
- use new digital technologies to support learning from what does and does not go well, by replacing the National Reporting and Learning System with a new safety learning system
- introduce the Patient Safety Incident Response Framework to improve the response to and investigation of incidents

---

[2] https://www.ncbi.nlm.nih.gov/pubmed/25077248

- implement a new medical examiner system to scrutinise deaths
- improve the response to new and emerging risks, supported by the new National Patient Safety Alerts Committee
- share insight from litigation to prevent harm.

Involvement

The NHS will:

- establish principles and expectations for the involvement of patients, families, carers and other lay people in providing safer care
- create the first system-wide and consistent patient safety syllabus, training and education framework for the NHS
- establish patient safety specialists to lead safety improvement across the system
- ensure people are equipped to learn from what goes well as well as to respond appropriately to things going wrong
- ensure the whole healthcare system is involved in the safety agenda.

Improvement

The NHS will:

- deliver the National Patient Safety Improvement Programme, building on the existing focus on preventing avoidable deterioration and adopting and spreading safety interventions
- deliver the Maternity and Neonatal Safety Improvement Programme to support reduction in stillbirth, neonatal and maternal death and neonatal asphyxial brain injury by 50% by 2025
- develop the Medicines Safety Improvement Programme to increase the safety of those areas of medication use currently considered highest risk
- deliver a Mental Health Safety Improvement Programme to tackle priority areas, including restrictive practice and sexual safety
- work with partners across the NHS to support safety improvement in priority areas such as the safety of older people, the safety of those with learning disabilities and the continuing threat of antimicrobial resistance
- work to ensure research and innovation support safety improvement.

Introduction

Patient safety is about maximising the things that go right and minimising the things that go wrong for people experiencing healthcare. It is integral to the NHS's definition of quality in healthcare, alongside effectiveness and patient experience. This strategy describes how the NHS will continuously improve patient safety over the next five to ten years.

This strategy sits alongside the NHS Long Term Plan (LTP) and the LTP Implementation Framework.[3] Local system plans to deliver the LTP will include local elements of the strategy: opportunities to improve patient safety are greatest at the point of care. NHS England and NHS Improvement regional teams will support delivery.

It is human to make mistakes so we – the NHS – need to continuously reduce the potential for error by learning and acting when things go wrong. In this spirit, we will report progress against this strategy annually and update it as needed.

Our vision for patient safety

Our vision is for the NHS to continuously improve patient safety. Safety is not an absolute concept and has neither a single objective measure nor a defined end point. Rather, it responds to patient needs and system priorities. The gold standard for safety will continue to be refined by new research and innovations; providing definite benchmarks on a never ending mission.

While continuously improving means there is no 'target' to achieve, the impact of doing so can be estimated (see Appendix 1). Better incident reporting and response could save an extra 160 lives and £13.5 million. If boosting patient safety understanding and capability reduces harm by a modest 2%, an extra 200 lives and £20 million could be saved. Focusing improvement programmes on those areas where most harm is seen could save 568 lives and £65 million. This adds up to 928 lives saved and £98.5 million more available for care per year. It is not possible to quantify all the potential benefits, so this impact will likely be greater. We think it is reasonable to expect to see this level of impact from 2023/24 onwards. In addition,

---

[3] https://www.longtermplan.nhs.uk/

the potential exists to reduce the claims provision related to neonatal brain damage incidents by around £750 million per year by 2025 (based on current prices).

Foundations for safer care: where we are now and where we need to go

To realise this vision the NHS will build on two foundations: a patient safety culture and a patient safety system, across all settings of care.

A patient safety culture

Culture change cannot be mandated by strategy, but its role in determining safety cannot be ignored. 'Just cultures' in the NHS are too often thwarted by fear and blame. A consistent message in the consultation responses was that fear is too prevalent across NHS staff, particularly in relation to involvement in patient safety incidents.

Nurses and doctors are among the most trusted people in society.[4] We trust clinicians to support us when we are at our most vulnerable and rely on them to uphold high standards of professional behaviour and competence. Furthermore, we trust that there are mechanisms to hold them accountable if they are deliberately malicious or negligent and to ensure they are competent. But however powerful these mechanisms, they cannot stop every single person in healthcare from getting things wrong from time to time. That is why we must do all we can to prevent these incidents from harming people.

Blame is a natural and easy response to error. It allows the cause of mistakes to be boiled down to individual incompetence, carelessness or recklessness and asserts that the problem is the individual. Blame relies on two myths. First, the perfection myth: that if we try hard, we will not make any errors. Second, the punishment myth: if we punish people when they make errors, they will not make them again.

Too often blame is disguised within otherwise valid approaches to improvement such as training and reflection. When these are recommended for one individual only, the underlying assumption is that they alone are the problem that needs fixing. But usually they are not the real problem, so this 'individual' approach does not prevent future errors.

---

[4] https://www.ipsos.com/ipsos-mori/en-uk/advertising-execs-rank-below-politicians-britains-least-trusted-profession

Healthcare staff operate in complex systems, with many factors influencing the likelihood of error. These factors include medical device design, volume of tasks, clarity of guidelines and policies, and behaviour of others. A 'systems' approach to error considers all relevant factors and means our pursuit of safety focuses on strategies that maximise the frequency of things going right.

In the extremely rare cases where people are deliberately malicious, knowingly and inappropriately depart from good practice, or are unfit to practise, action should be taken to protect patients. In most situations, however, where unintended or unexpected error occurs, the chosen action must be the one that is most likely to reduce the chances that the error is repeated. The 'systems' approach therefore underpins the NHS Patient Safety Strategy including the new Patient Safety Incident Response Framework (PSIRF; see later) and A Just Culture Guide.[5]

Tackling inappropriate blame with a systems approach is not the only consideration however. Dr Sonya Wallbank, National Clinical Advisor to the Culture, Leadership and Engagement Project, describes the features of a safety culture.

Box 1: Features of a patient safety culture

The key ingredients for healthcare organisations that want to be safe are: staff who feel psychologically safe; valuing and respecting diversity; a compelling vision; good leadership at all levels; a sense of teamwork; openness and support for learning.

Psychological safety for staff

To work at our best, adapting as the environment requires, we need to feel supported within a compassionate and inclusive environment. Psychological safety operates at the level of the group not the individual, with each individual knowing they will be treated fairly and compassionately by the group if things go wrong or they speak up to stop problems occurring. It means staff do not feel the need to behave defensively to protect themselves and instead opens the space in which they can learn.[6]

Diversity

Team psychological safety is characterised by a climate of inclusivity, trust and respect, where people feel able to thrive as themselves. Valuing diversity plays a

---

[5] https://improvement.nhs.uk/resources/just-culture-guide/
[6] Edmondson A (2018) *The fearless organization: creating psychological safety in the workplace for learning, innovation, and growth*. Boston, MA: Harvard Business School.

critical role. Recognising how beneficial difference, be it in age, gender, ethnicity, power or diversity of thought, is for team working, communication and performance, is vital. These differences stimulate learning and creativity if harnessed in the right way. Leading collectively through the team enhances the voice of even the least powerful roles and so enhances safety. Working in a deficit-based manner which can undermine, humiliate or at worst discriminate against those who are different, leads to fear and decreases team psychological safety and workplace learning.

Compelling vision

Before leadership can be practised well, there needs to be a vision of what we want to achieve. A good understanding of why we are doing something and where we want to get to pervades the successful system: the vision needs to be explicit, not reliant on assumption. Organisations that emphasise the importance of long-term thinking and strategy and have high aspirations for the teams within encourage pride and positivity in the workplace.[7]

Leadership and teamwork

Compassionate leadership creates psychological safety and encourages team members to pay attention to each other; to develop mutual understanding; to empathise and support each other. Such teams are also highly innovative. The way leadership is practised through the organisation is critical to its success, with clinical leadership being particularly important to safety. Furthermore, feeling part of a team protects individuals against the demands of the organisation they work for and if they have clarity about their role in the team, they are less likely to burn out and more likely to operate in a safe way.

Open to learning

To develop a culture of learning, the system must focus on what needs to change rather than punitive actions. An organisation that identifies, contains and recovers from errors as quickly as possible will be alert to the possibilities of learning and continuous improvement.

[7] West M, Eckert R, Collins B, Chowla R (2017) *Caring to change How compassionate leadership can stimulate innovation in health care.* London: The King's Fund.
https://www.kingsfund.org.uk/publications/caring-change

Dr Suzette Woodward, Director of the Sign up to Safety campaign that ran from 2014 to 2019, describes the equally important individual behaviours of kindness and civility that support patient safety.

Box 2: Kindness and civility

At its core, a positive culture requires kindness and civility. The importance of individuals' day-to-day behaviour in relation to safety is increasingly recognised. Civility is seen as nice, tame and safe, but when it is missing, we start to see its importance. Studies have shown that where people are rude and disrespectful, safety is compromised.[8,9]

What can we do?

If people are rude, we need to figure out why but not judge – understand their context. Most incivility arises from ignorance not malice. In many instances the person may not be aware their actions are hurtful. Most people are rude only rarely and when they are it is for a reason.

Hickson et al [10] describe how to respond to different behaviours. To shift from incivility to a kinder culture everyone needs to counter the rudeness by role modelling the right behaviour, reward good behaviour and deal with bad behaviour.[10]

High performing teams promote a culture of honesty, authenticity and safe conflict. The behaviours that counter incivility are often small; smile and say hello in the hallway, say thank you, recognise what people do, listen with intent.

Actions to support a patient safety culture

Developing a patient safety culture requires local systems to:

- use existing culture metrics like those in the NHS Staff Survey to understand their safety culture and focus on staff perceptions of the fairness and effectiveness of incident management

---

[8] Porath C, Pearson C (2013) The price of incivility. *Harvard Business Rev* 91(1-2): 114-21, 146.
[9] Riskin A, Erez A, Foulk, TA, Kugelman A, Gover A, Shoris I et al (2015) The impact of rudeness on medical team performance: a randomized trial. *Pediatrics* 136(3).
[10] Hickson GB, Moore IN, Pichert JW, Benegas Jr M (2012) Balancing systems and individual accountability in a safety culture. In: Berman S, ed. *From front office to front line*, 2nd edn. Oakbrook Terrace, IL: Joint Commission Resources, pp1-36.

- focus on the development and maintenance of a just culture by adopting the NHS Just Culture Guide or equivalent
- embed the principles of a safety culture within and across local system organisations, and align those efforts with work to ensure organisations adhere to the well-led framework[11] and its eight key lines of enquiry.

Progress on developing a safety culture will be supported by the introduction of the national patient safety syllabus and the designation of patient safety specialists, as well as wider mechanisms. Progress will be monitored through NHS Staff Survey metrics about fairness and effectiveness of reporting, and staff confidence and security in reporting. The introduction of proxy indicators for problematic cultures, such as levels of staff suspension and of anonymous incident reporting, will also be explored. Further information about supporting culture change is available on the NHS Improvement website.[12]

A patient safety system

Each of the many organisations that make up the English healthcare system (both NHS and non-NHS) has its own remit and responsibility for improving safety. Hospitals, general practices and other providers are responsible for the safety of their patients. They should also share local information about risks and best practice. Subregional organisations like clinical commissioning groups (CCGs), integrated care systems (ICSs) and sustainability and transformation partnerships (STPs) plan and oversee the provision of safe care and can tackle problems that cut across care settings. Regions also oversee the safety of care and can help scale evidence-based quality improvement initiatives. National bodies can set standards that enhance safety, mandating certain training or processes for example. They can also develop or adopt best practice from across the world.

Ensuring the right action is taken by the right organisation can be complex and who does what needs to be explained to people. The national patient safety team will publish a guide to patient safety in the NHS and keep it updated so that people are better able to understand our safety system.

Workforce

The NHS's dedicated, diverse and skilled workforce represents our best opportunity to deliver the vision for patient safety. We should continue to celebrate their success

---

[11] https://improvement.nhs.uk/documents/1259/Well-led_guidance_June_2017.pdf
[12] https://improvement.nhs.uk/resources/culture-and-leadership/

and contribution to our health, while acknowledging the challenges that exist. The World Health Organization (WHO) predicts that the world will be short of 18 million healthcare workers by 2030 – roughly a fifth of the total capacity to care.[13] The Francis report[14] on Mid-Staffordshire NHS Foundation Trust was a high profile and tragic example where staff reported "many incidents which occurred because of short staffing". The link between workforce capacity and capability and patient safety has many factors, but workforce challenges clearly create pressures on the system. We must also recognise the importance of staff well-being for patient safety.

The Interim NHS People Plan[15] published by NHS England and NHS Improvement (ahead of a full plan to be published following the next Comprehensive Spending Review) is a strong step in support of this workforce challenge. Alongside this we must have an effective strategy for safety improvement to support our staff in keeping patients safe. We will also play our part in focusing on system solutions to safety and avoid creating a paradox of informing staff of errors while offering no solution to existing risks.

Regulation

All safety systems need regulation to check that required standards are being met and that action is taken where they are not. The significant regulatory processes in the healthcare system play an important and enduring role.

Professional regulators such as the Health and Care Professions Council, Nursing and Midwifery Council and General Medical Council set standards of behaviour and practice for individuals, keep a register of individuals who are allowed to practise and on rare occasions remove those who are found unfit to practise.

Medications and Medical Devices are regulated by the Medicines and Healthcare products Regulatory Agency (MHRA). It ensures that medicines, medical devices and blood components for transfusion meet standards of safety, quality and efficacy by enforcing standards for manufacturers and distributors. Anyone can report concerns about a medicine or medical device to it via its Yellow Card scheme.[16]

The Care Quality Commission (CQC) directly monitors and inspects the quality of care provided by organisations, taking enforcement action where necessary. Safety

---

[13] Britnell M (2019) *Human: solving the global workforce crisis in healthcare*. Oxford: OUP.
[14] https://www.gov.uk/government/publications/report-of-the-mid-staffordshire-nhs-foundation-trust-public-inquiry
[15] https://www.longtermplan.nhs.uk/publication/interim-nhs-people-plan/
[16] https://yellowcard.mhra.gov.uk/

is one of its five key priority areas. CQC also responds directly to risks highlighted by staff, patients and their loved ones and is adapting its approach as providers begin to collaborate more to understand and meet the needs of their local populations.

Crucial for maintaining an effective safety system and safety culture will be a shared understanding of safety across all the above organisations. As described later, the NHS will support this by creating a single patient safety syllabus and by working with all regulatory bodies to encourage its uptake.

Digital and technology

A safety system is not static. Digital developments and new technologies offer the potential for transformational improvements in safety. For example, electronic prescribing and medicines administration (EPMA) systems, for which the latest tranche of funding has just been announced, reduce medication errors and free up staff time for other activities.[17] Advances in clinical decision support are improving diagnostic reliability and reducing unwarranted variation, and artificial intelligence is helping doctors triage diagnostic images. Appropriate patient access to clinical records enables them to be partners in their care and the decision-making around it.

A critical development will be the digitisation of clinical processes across healthcare as described in Chapter 5 of the NHS Long Term Plan.[18] Nationally agreed standards to ensure interoperability will allow full use of electronic records, reducing time and costs but most importantly enhancing safety. For example, prospective electronic recording of procedures can capture real-time data about the clinicians and patients involved, the procedure(s) being carried out and the use of relevant devices and medications, including implanted devices or prosthetics. Initiatives like Scan4Safety have demonstrated the benefits of this.[19] Linking this data with cross-NHS datasets capturing patient-reported and clinical outcomes and using machine learning will help identify emerging problems much more quickly than at present.

IT systems in health and social care can substantially benefit patients by ensuring the healthcare professionals caring for them have timely, complete and correct information. Such health IT systems are being increasingly used and their functionality is becoming more sophisticated.

---

[17] http://www.hospitalpharmacyeurope.com/pharmacy-practice/impact-epma-medicines-optimisation, https://www.hsj.co.uk/technology-and-innovation/e-prescriptions-change-the-game-for-acute-trusts/5067830.article, http://www.eprescribingtoolkit.com/
[18] https://www.longtermplan.nhs.uk/
[19] https://www.scan4safety.nhs.uk/

However, it must be recognised that failure, design flaws or incorrect use of such systems have the potential to cause patient harm. New digital tools and processes can also introduce new risks to clinical workflows. To help mitigate these risks, NHS Digital's Clinical Safety Team has developed clinical risk management standards to support the safe design, build, deployment and maintenance of health IT systems,[20] as well as education and awareness training to enhance the understanding of these safety standards and their application. These standards are mandated under section 250 of the Health and Social Care Act 2012 and should be considered and must be met by suppliers and health organisations when commissioning and deploying any new health IT system. They now align with the new medical device regulations for standalone software and thus apply to all health IT systems, including those regulated by the medical device regulations.

Cyber-security is a key consideration for all staff in keeping health IT systems working and so keeping patients safe. NHS Digital's Cyber Security Programme is delivering security capabilities and services that enhance the clinician's experience of technology in an effort to drive greater operational efficiencies and awareness, and to embed skills and knowledge, contributing to reducing the cyber risk to the NHS.

Safety in primary care

Dr Nikita Kanani, NHS England and NHS Improvement's Medical Director of Primary Care, describes the changes that will underpin safety improvement in primary care.

Box 3: Patient safety in primary care

Primary care is the first point of contact for most patients seeking healthcare: it saw 307 million patients in the year ending 31 January 2019.[21] It encompasses 7,500 practices, 11,500 pharmacies, 7,000 optometrists and 8,500 dentists. On average a GP has 42 patient contacts a day, a number that increases year on year.[22] NHS dentists saw 22.1 million adults and 6.9 million children in the 24 months to July 2018.[23]

---

[20] https://digital.nhs.uk/services/solution-assurance/the-clinical-safety-team
[21] NHS Digital. *Appointments in general practice*, January 2019.
[22] Baird B, Charles A, Honeyman M, Maguire D, Das P (2016) *Understanding pressures in general practice*. London: The King's Fund.
[23] https://digital.nhs.uk/data-and-information/publications/statistical/nhs-dental-statistics

High quality patient care at every contact is the aim of the primary care team. Work led by the University of Nottingham's Division of Primary Care has found that the vast majority of people receive safe care.[24] However, reports from around the world indicate that errors occur in 2% to 3% of primary care encounters and one in 25 of those involve serious harm to a patient.[25] The Nottingham-led study identifies the most common problems are difficulties making the right diagnosis, delays in referring patients to hospitals and prescribing errors.

New ways of working

The NHS Long Term Plan describes the development of new ways of working in primary and community care that can increase the focus on safety. The development of integrated care pathways with patients moving seamlessly between primary, community and secondary care services is an opportunity for local systems to develop sensitive clinical governance with clear lines of accountability and safer care. New ways of working for healthcare professionals offer further opportunities. As an example, 'extensivists'[26] – GPs or physicians working primarily in the community but able to follow their patients into hospital – reduce admissions and length of stay. Another is the Digital Minor Illness Referral Service[27] which directs appropriate patients to community pharmacies instead of GPs or A&E.

Dental work historically done in secondary care, such as minor oral surgery, is increasingly being commissioned in a primary and community care setting. As this develops we will need to apply secondary care safety initiatives to this new setting.[28]

The new primary care networks (PCNs) bring the opportunity to promote a safety culture and focus on continuous quality improvement and patient safety in primary care. The role of the PCN clinical director will be developed though leadership programmes to ensure they have the expertise to facilitate this. Once PCNs are established there will be potential to support the new safety initiatives signalled in this strategy, and indeed establish new initiatives designed with the sector. There is also significant potential for PCNs to learn from each other and to establish new ways of

[24] Patel B, Avery T (2019), personal communication and
https://drive.google.com/file/d/1oGpA35BYEJe1ngf3k_KstqN120gNoBwI/edit
[25] Panesar SS, deSilva D, Carson-Stevens A, Cresswell KM, Salvilla SA, Slight SP et al (2016) How safe is primary care? A systematic review. *BMJ Qual Saf* 25(7): 544-53.
[26] https://www.kingsfund.org.uk/sites/default/files/media/Ian-Wyer-GP-extensivist-role.pdf
[27] https://www.england.nhs.uk/primary-care/pharmacy/digital-minor-illness-referral-service-dmirs/
[28] https://www.rcseng.ac.uk/dental-faculties/fds/publications-guidelines/locssips-toolkit-dental-extraction/

sharing data which could shine a light on areas for improvement across primary, community and secondary care.

Insight

Only a tiny fraction of the two million patient safety incidents reported to the NRLS come from primary care. By making it easier to access reporting systems and by providing a more responsive and interactive reporting experience, the replacement for the NRLS (see later) will support primary care practitioners to use digital incident management functionality.

We know there are issues relating to the dissemination and implementation of Patient Safety Alerts in primary care. We will work with PCNs to explore how they can engage primary care providers in alert implementation. The National Patient Safety Alerting Committee (NaPSAC, see later) will also have a role in ensuring primary care receives alerts and takes identified actions.

The medical examiner system (see later) is due to be rolled out for all deaths in primary care from March 2021 and will provide an additional structure for insight.

Improvement

Patient safety improvement work and engagement with primary care has been variable across the national Patient Safety Collaborative (PSC) programme, with most work focusing on the acute setting. We must now translate the most appropriate secondary care safety initiatives into primary care, adopting and spreading evidence-based interventions or testing those that lack evidence.

The General Practice Development Programme[29] seeks to spread innovation and build capacity for improvement through funding, training and coaching across 10 high impact actions, including by developing quality improvement expertise. This initiative is an opportunity to spread learning, safety actions and frameworks.

Medicines safety is a key area for primary care safety. The Medicines Safety Improvement Programme (see later) will support medicines safety across systems. The system-wide medicines safety assurance model[30] is being developed in response to the WHO global patient safety challenge. It seeks to provide organisations with a self-assessment assurance framework to reduce the risk of harm

---

29 https://www.england.nhs.uk/gp/gpfv/redesign/gpdp/
30 https://engage.improvement.nhs.uk/medical-directorate-2013-business-and-operations/medicines-safety-assurance-in-your-care-setting/

by supporting local best practice through a whole-system approach to medicines harm reduction. PINCER, a pharmacist-led intervention for reducing errors in primary care prescribing, is being implemented through Academic Health Science Networks.[31]

Digital

Digital strategies offer several mechanisms to address issues that contribute to patient safety in primary care; better administration to reduce delays in referrals; developing more effective ways of managing patients with multimorbidity and improving continuity of care; better communication between healthcare professionals and patients, and between primary and secondary care. Integration and connection of GPs and community pharmacies through electronic prescribing will reduce the risks of harm from medication errors, particularly as increasingly complex care is delivered in the community and prescribing is managed by more than one team. PCNs and ICSs also offer the opportunity for the summary care record to be accessed digitally across primary care providers. Our aim will be to deliver digital access that improves safety and reduces incidents such as those associated with drug interactions.

Multiple IT system designs are in place to support patient safety; for example, systems that flag adverse drug interactions or promote safe prescribing associated with a patient's medical history. Despite these, errors occur. Better design could make these IT systems more effective.

The GP IT Futures Digital Care Services Framework[32] will embed patient safety architecture in primary medical care systems and is intrinsically linked with the 2019 to 2021 GP IT operating model (to be published shortly). The operating model will provide the assurances and framework for digital enablers to be embedded in general practice and CCGs, with details of the infrastructure needed to ensure implementation of the digital strategy in the NHS Long Term Plan for primary care. The 'keeping general practice safe' component of the operating model outlines the requirements for digital changes, such as video consultations and patient access to medical records, to be delivered safely and securely. New digital technology such as artificial intelligence will help identify patients whose medical data shows worrying trends.

---

[31] https://www.ahsnnetwork.com/about-academic-health-science-networks/national-programmes-priorities/pincer/
[32] https://digital.nhs.uk/services/future-gp-it-systems-and-services

What the NHS is going to do

Continuously improving patient safety involves the NHS building on the foundations of a patient safety culture and systems. The NHS aims to:

- improve its understanding of safety by drawing insight from multiple sources of patient safety information (**Insight**)
- equip patients, staff and partners with the skills and opportunities to improve patient safety throughout the whole system (**Involvement**)
- design and support programmes that deliver effective and sustainable change in the most important areas (**Improvement**).

Figure 1: Summary of the NHS Patient Safety Strategy

Continuously improving patient safety

Improve our understanding of safety by drawing insight from multiple sources of patient safety information.

People have the skills and opportunities to improve patient safety, throughout the whole system.

Improvement programmes enable effective and sustainable change in the most important areas.

Insight
Measurement, incident response, medical examiners, alerts, litigation

Involvement
Patient safety partners, curriculum and training, specialists, Safety II.

Improvement
Deterioration, spread, maternity, medication, mental health, older people, learning disability, antimicrobial resistance, research.

A patient safety *culture*
A patient safety *system*

Insight

'Insight' work aims to improve understanding of safety across the whole system by drawing intelligence from multiple sources of patient safety information.

Measurement

Key to improving safety is the ability to measure it, but safety measurement can be complex. The approach to safety measurement needs to improve. Kate Cheema, Head of the Patient Safety Measurement Unit, and Dr Sarah Scobie, Deputy Director of Research at the Nuffield Trust, describe a set of principles for patient safety measurement.

Box 4: Principles for patient safety measurement

Setting ambitions

One of the biggest challenges to measuring safety is that it is a moving target. As with the high jumper, as soon as the bar is cleared it is raised. They will not clear the bar as often once it is raised but overall will be jumping to a higher level. The fact that what we consider to be 'safe' constantly shifts means we will never have a universal objective measure of how safety has improved over time.

Another challenge relates to attribution. National objectives (eg those to halve stillbirths and neonatal deaths) can be used to hold national strategic partners to account for delivering what the NHS needs, but very few, if any, overarching measures are 'purely' about patient safety as they will be impacted by other factors like the effectiveness of care.

Ambitions should be tailored to the issue at hand, what has already been achieved and what others have shown is possible. Where significant improvement has been delivered, further progress may be hard, while other areas have more opportunity.

In establishing measures and aims for safety improvement, our approach needs to hit the right balance between challenging and achievable through:

- aiming to match and then exceed 'best in class' – whether that is best in the world or best in the NHS

- input from patients, the public and those who directly provide care, as well as expert advice
- setting aims that are within the control of those charged with delivery.

Improving safety measurement across the whole system

The importance of measurement in improving safety is now widely acknowledged, but while there is now significant activity associated with this, variation in approach has emerged, which does not always support improvement.

Effective safety measurement can be underpinned by the following principles:

1. Be clear about the purpose of each measure, 'dashboard' or 'scorecard'.
2. Be clear when a change is an improvement.
3. Don't use too many measures – this can crowd out the important ones.
4. Measures of culture, infrastructure, process and outcomes are all useful.
5. Use the same measure for the same purpose across all organisations.
6. Make data collection easy, using existing data where possible.
7. The terms 'avoidable' and 'unavoidable' are unhelpful for patient safety.
8. Incident reporting is never a measure of actual harm.
9. The design of data presentation is critical to how it is interpreted.
10. Work in partnership with analysts, patients, improvers and clinicians.

NHS England and NHS Improvement will adopt these principles for all safety measurement activity and encourage all parts of the system to do likewise. We will track their implementation.

A new digital system to support patient safety learning

The National Reporting and Learning System (NRLS) has been the heart of NHS patient safety insight since 2004, but it uses outdated technology and will be replaced. Lucie Musset, product owner for the new system, describes what it will do.

Box 5: Replacing the NRLS

The project to replace the NRLS and Strategic Executive Information System (StEIS) aims to redefine patient safety learning across healthcare. The NRLS enables national-level surveillance for new or under-recognised risks, while StEIS tracks the

management of Serious Incidents through an investigation process. Our new system will rationalise these functions to create a single, simple portal, making it easier and more efficient for frontline staff to use. But we want to achieve more than that with the new system. It will be the digital arm of a fundamental shift in the way we understand, structure, collect and use patient safety information across the NHS.

What data is collected?

We are changing the underlying taxonomy of the data we collect, so it is better suited to learning, more appropriate for analysis and more user-friendly to people making reports. We are balancing reducing the time it takes to input information with collecting data that provides insight about the issues we need to record and what might be done to improve safety. As an example, we will update the definitions of harm, as requested by people with experience of incidents, reducing overlap between them and specifying two distinct scales: one for physical and one for psychological harm.

How is data collected?

We will provide new data collection portals, to cover a wider range of settings including mobile, and risk management functionality particularly for primary and community providers.

Who inputs data?

We are committed to supporting patients, carers and the public to be involved in safety recording and learning. We are developing data capture tools with them so they can give their perspective on where learning opportunities exist.

We have heard the call to explore the inter-relationship between complaints and incidents – not least the assertion that complaints are a form of incident reporting, complementary to staff incident reporting. People do not necessarily know how to differentiate between a complaint and safety information to support learning but that should not prevent them from providing feedback. We need to be able to respond sensitively to individual cases locally but also spot themes and trends.

This is challenging, but our intention to support the flow of data to and from local systems may provide potential solutions. While acknowledging the complaints system is established in law, we will explore this challenge with system partners to create more opportunities for improvement.

Analysing the data

We will use modern technology, including data-cleansing algorithms to protect anonymity, and machine learning tools to process the data in new ways, helping us not only to pull out the data we seek, but also to reveal previously hidden insights and propose new lines of enquiry.

The importance of using mortality review to understand the care provided to people at the end of life is clear. The new system will support mortality review and so link with the new medical examiner system (see later).

Accessing data and insight

Another priority is to make access to data and learning resources easier, as well as encouraging local systems to share more of their own safety insights to help diffuse ideas. Our new system will provide a shared space to connect with experts and where improvers can exchange ideas and lessons.

The new system will also make safety data more accessible and transparent, offering a self-service portal to search, analyse and download data to support local learning and improvement, as well as safety science research and international collaboration.

The Patient Safety Incident Response Framework

National bodies can provide systems and policies for the NHS, but safety is improved at the point of care. Lauren Mosley, Head of Patient Safety Implementation, and Donna Forsyth, Head of Investigation, describe the new Patient Safety Incident Response Framework (PSIRF) which will replace the Serious Incident Framework and support insight generation at the point of care.

Box 6: The Patient Safety Incident Response Framework

The 2015 Serious Incident Framework set the expectations for when and how the NHS should investigate Serious Incidents. However, compelling evidence from national reviews, patients, families, carers and staff and an engagement programme in 2018[33] revealed that organisations struggle to deliver these.

---

[33] A full summary is available online at https://improvement.nhs.uk/resources/future-of-patient-safety-investigation/

While recognising the importance of learning from what goes well, identifying incidents, recognising the needs of those affected, undertaking meaningful analysis and responding to reduce the risk of recurrence remain essential to improving safety. Doing this well requires the right skills, systems, processes and behaviours throughout the healthcare system.

The PSIRF will support the NHS to operate systems, underpinned by behaviours, decisions and actions, that assist learning and improvement, and allow organisations to examine incidents openly without fear of inappropriate sanction, support those affected and improve services.

The PSIRF proposals explore:

- **A broader scope:** describing principles, systems, processes, skills and behaviours for incident management as part of a broader system approach, providing and signposting guidance and support for preparing for and responding to patient safety incidents in a range of ways, moving away from a focus on current thresholds for 'Serious Incidents'.[34]

- **Transparency and support for those affected:** setting expectations for informing, involving and supporting patients, families, carers and staff affected by patient safety incidents.

- **A risk-based approach:** we think organisations should develop a patient safety incident review and investigation strategy to allow them to use a range of proportionate and effective learning responses to incidents. The proposal is to explore basing the selection of incidents for investigation on the opportunity they give for learning; and ensuring that providers allocate sufficient local resources to implement improvements that address investigation findings.

- **Purpose:** reinforcing the purpose of patient safety investigation and insulating it against scope creep and inappropriate use, so that safety investigations are no longer asked to judge 'avoidability', predictability, liability, fitness to practise or cause of death.

---

[34] Note there is no intention to alter the need to investigate specified incidents such as deaths where there is reason to believe the death may have resulted from problems in care as set out in the Learning from Deaths framework.

- **Governance and oversight:** taking a different approach to the oversight and assurance provided by commissioners, emphasising instead the role of provider boards and leaders in overseeing individual investigations.
- **Terminology:** making references to 'systems-based patient safety investigation', not 'root cause analysis', to reflect the 'systems' approach to safety.
- **Timeframes:** instead of applying a strict 60 working day deadline, adopting timeframes based on an investigation management plan that is agreed where possible with those affected, particularly patients, families and carers.
- **Investigation standards and templates:** introducing national standards and standard report templates.
- **Investigator time and expertise:** requiring investigations to be led by those with safety investigation training and expertise, and with dedicated time and resource to complete the work.
- **Cross-setting investigation and regionally commissioned investigation:** to better reflect the patient experience, co-ordination of investigation across multiple settings will be supported. This will include clearer roles and responsibilities for NHS regional teams to support investigation of complex cross-system incidents where needed.

Implementation

The PSIRF is a foundation for change. Local, regional and national work will be required to introduce this approach. Early adopters across several local systems will give insight into how the new expectations are best implemented and this used to support subsequent national implementation. Further support will be provided by:

- establishing a national implementation group including patient representation, to provide strategic direction and leadership and help solve challenges identified during implementation
- working across regional teams to support alignment of responsibilities
- developing an investigation training supplier procurement framework so that organisations can access high quality training more easily
- regional leads working to support a broader approach to cross-system and regionally commissioned investigation

- setting key objectives to support implementation as part of the NHS Long Term Plan and ensuring local implementation plans are developed
- developing resources for boards to include content in existing board development programmes.

The Healthcare Safety Investigation Branch (HSIB)

Alongside the PSIRF, the investigation expertise at the new HSIB is generating significant insight into the system-level causes of harm. Keith Conradi, Chief Investigator at HSIB, outlines its role:

Box 7: The Healthcare Safety Investigation Branch

The HSIB provides expert and impartial insight into systemic safety risks. These risks encompass system-wide factors that can contribute to serious failures of care, such as ambiguous regulatory requirements or inappropriate commissioning. Through professional safety investigations, we make evidence-based recommendations to enable change for safety improvement and learning, helping to counter the blame culture which exists in parts of NHS organisations and healthcare professions.

We aim to model the values and behaviours that support transparency and blame-free learning, and collaborate with organisations, healthcare staff, patients and families during our investigations.

Our contribution to the delivery of the NHS Patient Safety Strategy includes:

- developing and testing safety investigation processes, understanding and experimenting with different methods from other safety critical industries, and designing and trialling these approaches to understand how healthcare safety investigation can be more effective both at national level and locally
- facilitating safety improvement in NHS maternity services through our maternity investigations programme
- producing high quality reports that demonstrate the significant benefits of trained, dedicated, full-time professional safety investigators for achieving learning and improvement in healthcare safety investigations
- reinforcing the value and fundamental importance of involving patients and their families for understanding the causes of patient harm and the changes needed to help prevent it

> - working collaboratively with healthcare organisations and their staff to understand risk in healthcare, and to develop evidence-based recommendations to improve the conditions for safety in healthcare.

The government's draft Health Service Safety Investigations Bill,[35] published in September 2017, set out legislative provisions to establish a new, fully independent body to investigate healthcare safety incidents in the NHS in England. The government also published a response[36] to the Joint Committee's pre-legislative scrutiny of the bill in December 2018.

The medical examiner system

Examining the care patients receive at the end of their lives can provide crucial safety insight. The NHS's approach to Learning from Deaths has been developed over recent years.[37,38] Annual Learning from Deaths data will be published for the second time this summer within trust quality accounts. Learning from Deaths guidance is being extended to ambulance trusts and work continues to improve systems for learning from the deaths of children[39] and people with learning disability.[40] However, a means of ensuring all deaths are scrutinised independently has been missing. This is changing with the implementation of the medical examiner system. Dr Alan Fletcher, National Medical Examiner, describes the new system.

> ## Box 8: The medical examiner system
>
> The medical examiner system will be a transformative part of the NHS safety system, giving the bereaved a voice, while ensuring that the period after death is as problem free as possible. Several important inquiries have recommended this system be established. Critically the system will knit together the good work already underway as part of Learning from Deaths. We have several aims for the system:

[35] https://www.gov.uk/government/publications/health-service-safety-investigations-bill
[36] https://www.gov.uk/government/publications/government-response-to-health-service-safety-investigations-bill-report
[37] https://improvement.nhs.uk/resources/learning-deaths-nhs/
[38] https://www.england.nhs.uk/publication/learning-from-deaths-guidance-for-nhs-trusts-on-working-with-bereaved-families-and-carers/
[39] https://www.gov.uk/government/publications/child-death-review-statutory-and-operational-guidance-england
[40] https://www.bristol.ac.uk/sps/leder/

- provide a better service for the bereaved and an opportunity for them to raise concerns about care with a doctor not involved in that care
- enhance patient safety by ensuring that all deaths are scrutinised by an independent medical examiner so that any issues with the quality of care can be identified and acted on
- ensure the appropriate direction of deaths to the coroner
- improve the quality of death certification.

While this will initially be a non-statutory system, it will be established in statute and the Department of Health and Social Care (DHSC), its sponsor department, will take the necessary legislation through parliament in due course.

England will have seven regional medical examiners to help implement the new system by providing direct support and supervision to medical examiners working in the system and ensuring they have links to regional teams.

In 2019/20, acute trusts[41] in England are being asked to establish medical examiner offices to scrutinise the deaths occurring in their trust. Over the course of 2020/21, the service will be expanded to encompass all deaths, including those occurring in the community and in independent providers.

Each medical examiner office team will:

- agree the proposed cause of death with the qualified attending practitioner to ensure the death certificate is accurate
- for non-coroner cases, discuss the cause of death with the next of kin and establish if they have any concerns with the care provided
- act as a source of medical advice to the local coroner and facilitate notification of deaths to them appropriately.

At a local level, medical examiner offices will inform the selection of cases for mortality review and support other clinical governance processes, helping to identify where greater scrutiny may be needed or where systemic patient safety issues warrant an organisation-wide or broader response.

[41] We expect host sites to be predominantly acute trusts with, potentially, services at certain specialist providers.

Reports from regional medical examiners and the national office will identify key themes and issues relating to both cause of death and any potential causes of concern. By triangulating this with other information such as mortality indices and local intelligence, the trends or patterns that merit further exploration will be clearer.

National clinical review and response

A benefit of having a national health service is that national incident data can be analysed to identify new and under-recognised issues which can be addressed through national action. We estimate 160 lives and £13.5 million in treatment costs are saved every year from these efforts (see Appendix 1). Supported by developments in machine learning (see earlier), NHS Improvement and NHS England will continue to improve current review work.[42] Work will continue with partners to determine if issues are best addressed at source or by professional organisations, other safety partners or an NHS Improvement Patient Safety Alert.

Dr Frances Healey, Deputy Director of Patient Safety (Insight), describes the purpose of NHS Improvement Patient Safety Alerts.

Box 9: NHS Improvement Patient Safety Alerts

Our work to produce Patient Safety Alerts[43] builds on continuous feedback and review of past alerting systems, with learning from bodies such as the National Patient Safety Agency and reviews such as CQC's *Opening the door to change*.[44]

These alerts have a specific role in patient safety. This is grounded in an understanding of safety theory; harm cannot be prevented simply by people striving to avoid error (the 'perfection myth'), and so a traditional style of alert that requires staff to read about past error and endeavour to avoid repeating it is ineffective.

Alerts are inappropriate to address 'wicked problems'; long-standing challenges that the NHS and other systems have worked for many years to address will have complex causes that a brief alert cannot address. However, where an issue is new or

---

[42] https://improvement.nhs.uk/resources/patient-safety-review-and-response-reports/
[43] https://improvement.nhs.uk/resources/patient-safety-alerts/
[44] https://www.cqc.org.uk/news/releases/cqc-calls-change-safety-culture-across-nhs-reduce-avoidable-harm-0

under-recognised and can be addressed through relatively simple and widely applicable actions, an alert can prompt and support local systems to take action.

We have established a clear remit and model for when NHS Improvement Patient Safety Alerts can add value. Through the National Patient Safety Alerts Committee we will work to improve their clarity and effectiveness.

The National Patient Safety Alerts Committee

The National Patient Safety Alerting Committee (NaPSAC)[45] was set up in 2018 at the request of the Secretary of State for Health and Social Care following evidence that the safety advice and guidance issued to the NHS was not having the required impact. It is working to align all national alert issuing bodies and teams to ensure future National Patient Safety Alerts set out clear and effective actions that local systems must take on safety-critical issues.

The Chief Medical Officer, DHSC Supply Disruption, MHRA, NHS Digital, NHS England, NHS Improvement Estates and Facilities, national patient safety team and Public Health England (PHE) all currently issue safety messages, notices, letters or alerts through the Central Alerting System (CAS). NaPSAC is developing common standards and thresholds across these organisations. A single format for alerts will make it much easier for local systems to see what they need to do, by when and why. The standards and thresholds agreed by NaPSAC will underpin CQC's inspection of National Patient Safety Alerts and any regulatory response to non-compliance.

Once the alignment of alert processes is embedding, NaPSAC will widen its terms of reference to become a safety committee akin to the safety boards[46] that exist for other safety critical industries like transport. The committee will oversee the implementation of HSIB recommendations, with NaPSAC holding all its contributing organisations to account for progress on actions agreed in response to these recommendations. NaPSAC will also request progress reports from non-healthcare bodies to which HSIB recommendations are directed.

---

[45] https://improvement.nhs.uk/resources/national-patient-safety-alerting-committee/
[46] https://www.caa.co.uk/Safety-initiatives-and-resources/How-we-regulate/State-safety-programme/Policy-and-resources/State-Safety-Programme-stakeholders/

Clinical negligence and litigation

Clinical negligence claims are costly events, both in terms of the harm caused and the expense that results. Helen Vernon, Chief Executive of NHS Resolution, discusses the importance of generating and sharing insight from the harm that can result in clinical negligence claims.

Box 10: Insight from clinical negligence claims

Whether patient, relative, a lawyer acting for a patient, a healthcare professional or a patient safety expert, we all want to avoid incidents that lead to claims. To make this happen, we must work together to learn from claims.

The impact of clinical negligence

Clinical negligence can have substantial, perhaps immeasurable, impact on patients and their relatives. Our recent thematic reviews into learning from suicide related claims[47] and five years of cerebral palsy claims[48] highlight personal tragedies. Negligence also comes at significant financial cost to the NHS. Between 2006/07 and 2017/18, clinical claims payments quadrupled, from £0.4 billion to £2.2 billion, with the number of reported claims doubling from 5,400 to 10,600 over the same period.[49]

Facilitating learning from clinical negligence claims

We are collaborating to help improve services and reduce the risk of things going wrong. In maternity, the clinical area with the single biggest cost of claims, we are supporting the national ambition to halve maternal and neonatal deaths and significant harm through **early notification of incidents** – capturing maternity incidents within 30 days; supporting local systems in their response, including early family involvement and sharing learning; carrying out early liability investigations; and providing compensation where appropriate. Our Clinical Negligence Scheme for Trusts (CNST) rebate rewards trust for delivering 10 key maternity safety actions. We undertake in-house **research** into the causes of maternity incidents and share our findings to enable maternity safety improvement.

47 https://resolution.nhs.uk/wp-content/uploads/2018/09/NHS-Resolution_learing_from_suicide_claims_148pp_ONLINE1.pdf
48 https://resolution.nhs.uk/wp-content/uploads/2017/09/Five-years-of-cerebral-palsy-claims_A-thematic-review-of-NHS-Resolution-data.pdf
49 https://resolution.nhs.uk/wp-content/uploads/2018/08/NHS-Resolution-Annual-Report-2017-2018.pdf

More widely our **claims scorecards** help our members understand their claims data to better target interventions aimed at improving patient safety. We work with the **Getting It Right First Time** programme to improve the quality of care by reducing unwarranted variation (see below) across the NHS. Our **thematic reviews** are another important way of sharing insight and focusing improvement.

Further developments

NHS Resolution has commissioned and published **research**[50] on the period between when a harmful incident happens and the patient decides to make a legal claim. This is being used to develop a national programme of work to improve the NHS's response when things go wrong, including by supporting NHS staff to **be open, raise concerns and deliver duty of candour** and apologise with confidence. We will continue to run workshops and publish research and analysis, collaborating with DHSC and the Parliamentary and Health Service Ombudsman, to help the system deliver effective and sustainable action to improve its response to concerns and complaints from patients and their families. We will also work with our partners to gather good practice and training in learning from claims into one **Faculty of Learning** to share with the NHS.

We will continue to use elements of the CNST pricing to incentivise improvements in care. We will explore expansion of the successful Maternity Incentive Scheme to other areas.

Data is key to identifying future priorities and extracting insight. Together with the programme to replace the NRLS, we will **align data** on incidents, complaints and claims, supporting development of a shared taxonomy that will enable analysis across databases.

We will continue to support work across government to address the costs of clinical negligence claims – so that more money is available for healthcare – and use the costs and causes of litigation to inform decisions about improvement priorities. We will also continue to promote effective and appropriate use of alternative dispute resolution initiatives such as our mediation service.

The Getting It Right First Time (GIRFT) programme's litigation workstream supports the work of NHS Resolution, as described by John Machin, GIRFT Clinical Lead for

[50] https://resolution.nhs.uk/resources/behavioural-insights-into-patient-motivation-to-make-a-claim-for-clinical-negligence/

Litigation, and Professor Tim Briggs, Chair of GIRFT and National Director of Clinical Improvement for the NHS.

Box 11: The GIRFT programme's litigation workstream

The GIRFT programme began in orthopaedic surgery in 2012 to address the unwarranted variation in clinical practice, improve patient care and provide efficiency savings for the NHS. A senior clinician visited every trust in England with a bespoke data pack for each orthopaedic department that brought together key data from national datasets, audits and registries to inform clinicians' discussion of their department's performance and to share good practice. The programme now covers 40 clinical specialties.

GIRFT visits identified that many clinicians and staff at all levels were unaware of the litigation claims against their department and suggested the need to improve learning from clinical negligence claims. GIRFT worked with NHS Resolution to release the Surgical Specialties Litigation Data Pack in December 2017. This contains specialty-specific litigation metrics, allowing trusts to benchmark their performance against the national average.

GIRFT also specified action points for local systems: careful review of each claim; benchmarking the position of each department against the national average; informing NHS Resolution of any coding errors; triangulating claims with learning from complaints, inquests and Serious Incidents.

In June 2019 GIRFT released a new Litigation Data Pack for all trusts in England with refreshed surgical specialties litigation data and new medical specialties litigation data to support and advance the work carried out by trusts in response to the previous data packs. The GIRFT programme in collaboration with NHS Resolution continues to develop improvements in patient safety through claims learning. Later this year, GIRFT will publish the first of its best practice guidance based on claims learning in orthopaedic surgery and focusing on the high volume areas of hip and knee arthroplasty.

The National Clinical Improvement Programme (NCIP)[51] is modelled on the approach adopted by GIRFT and aims to support clinicians with learning and continuous self-development with respect to the services they deliver. The

[51] https://gettingitrightfirsttime.co.uk/associated-projects/ncip/

programme will provide both team and clinician-level activity and metrics about the whole of a clinician's practice, and links to relevant service delivery research and other evidence, delivered through a secure online portal hosted by NHS Improvement. NCIP is being delivered through the GIRFT programme.

Involvement

'Involvement' work aims to ensure that patients, staff and our partners have the skills and opportunities to improve patient safety.

Patients, carers, families and lay people as partners

The importance of the role of patients, their families and carers, and other lay people in improving the quality of NHS care is increasingly recognised,[52,53] as is involving patients as partners in their own care. However, more work is needed to support widespread implementation.

Patient and public voice partners, Khudeja Amer-Sharif, Douglas Findlay, Priscilla McGuire, Simon Rose, Joanne Hughes and Jono Broad, describe their work to co-produce principles for involving patients both in their own safety and in the wider delivery of healthcare.

Box 12: Patient safety partners

Creating 'patient safety partners' (PSPs) is, we believe, the right way to make real what Don Berwick called for when he said that "patients and their carers should be present, powerful and involved at all levels of healthcare organisations from wards to the boards of trusts."[54]

General principles

These roles require support from senior leadership in the organisation, including by committing to give them equality of voice and empowerment to speak up, as well as the co-production of mechanisms for their voices to be heard up to board level. This support may come from a non-executive director or executive director with responsibility for patient safety.

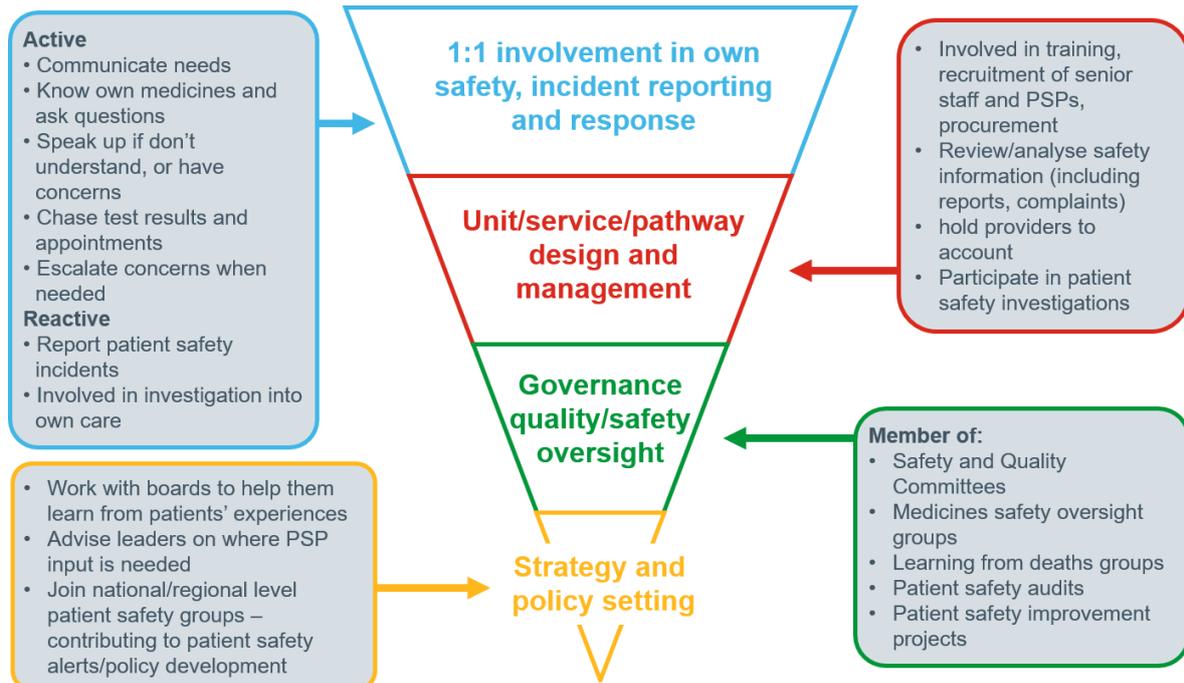[52] O'Hara JK, Aase K, Waring J (2019) Scaffolding our systems? Patients and families 'reaching in' as a source of healthcare resilience. *BMJ Qual Saf* 28(1): 3-6.
[53] Odell M, Gerber K, Gager M (2010) Call 4 Concern: patient and relative activated critical care outreach. *Br J Nurs* 19(22): 1390-5.
[54]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/226703/Berwick_Report.pdf

PSPs can be particularly effective when the organisation recruits a team of PSPs that includes people who have been harmed when in the care of the NHS. PSPs should be involved in deciding where their input might be needed. Those with experience of being harmed can be particularly effective as patient safety champions or in staff training.

Figure 2: Potential roles of patient safety partners

Active
- Communicate needs
- Know own medicines and ask questions
- Speak up if don't understand, or have concerns
- Chase test results and appointments
- Escalate concerns when needed

Reactive
- Report patient safety incidents
- Involved in investigation into own care

1:1 involvement in own safety, incident reporting and response

- Involved in training, recruitment of senior staff and PSPs, procurement
- Review/analyse safety information (including reports, complaints)
- hold providers to account
- Participate in patient safety investigations

Unit/service/pathway design and management

Governance quality/safety oversight

Member of:
- Safety and Quality Committees
- Medicines safety oversight groups
- Learning from deaths groups
- Patient safety audits
- Patient safety improvement projects

- Work with boards to help them learn from patients' experiences
- Advise leaders on where PSP input is needed
- Join national/regional level patient safety groups – contributing to patient safety alerts/policy development

Strategy and policy setting

Good practice is to actively recruit PSPs with clear role descriptions. Interview panels should include a diverse range of NHS staff as well as patient/public representatives. Although not employees, once recruited, PSPs should be annually appraised, with clear objectives and training needs agreed. The new patient safety specialists once identified (see later) may also have a role in supporting PSPs.

We believe organisations should co-produce clear specifications for the different local PSP roles, so preventing tokenistic involvement, and should consider the potential advantages and disadvantages of time-limiting these roles. Training for staff partnering PSPs will support their effectiveness and should be considered as part of the national patient safety syllabus.

Patients as partners in their own safety

Patients and their families/carers should be encouraged and empowered to become 'vigilant stakeholders' in safety, moving from passive recipients of care to active

partners.[55] Patients (or their advocates) will be empowered to play an active role in patient safety if they understand what safe care means in their personal circumstances and have improved health literacy. Involving people in their own safety means producing tools and resources to support people's involvement in their own care, improving access to their own data, including clinical test results, as well as providing mechanisms for people to report safety incidents.

If harm occurs, patients must be supported to be as involved as they wish to be in the work to develop an understanding of what happened so that the contributory factors can be identified and learned from. They should also be able to access support to aid their recovery.[56]

The PSP role

PSPs should be involved in:

- **Service and pathway design.** Patients should be involved in service and pathway design, even if it is not always practical for a PSP to be involved. If patient representatives identify patient safety concerns, they may seek advice from a PSP on how to address this with relevant staff members in the service redesign team.
- **Safety governance.** PSPs can contribute and add value to safety governance by, for example, sitting on relevant committees to support compliance monitoring, responding to safety issues, reviewing data and reports, and providing appropriate challenge to ensure learning and change. We believe PSPs will be most effective where at least two sit on safety committees together to provide peer support.
- **Strategy and policy.** PSPs could ensure patients' perspectives are considered and provide valuable insights on the risks to patients; for example, where transitions in care and integration of care pathways are being considered.

PSP skills

PSPs should have knowledge and understanding of patient safety issues. Once appointed all PSPs should receive training based on the national patient safety

[55] Vincent CA, Coulter A (2002) Patient safety: what about the patient? *BMJ Qual Saf* 11(1): 76-80.
[56] Anderson-Wallace M, Shale S (2014) Restoring trust: What is 'quality' in the aftermath of healthcare harm? *Clin Risk* 20(1-2): 16-8.

syllabus according to need and role. Where possible, PSPs should be trained alongside staff.

PSPs need to be considered as having a vital and equal role in driving up safety standards in the NHS. This can be demonstrated by offering remuneration for their work based on clear criteria. NHS England has developed and published a policy[57] for identifying appropriate payment for patient involvement activity. The national patient safety team and others have adopted this policy and we believe this provides a model for the wider NHS to follow.

Next steps and monitoring progress

We have developed the basis of a PSP framework that can support the whole NHS to involve people more in the safety of healthcare. Over the coming months we will work with the national patient safety team and others to further develop our thinking and produce further guidance for the NHS. This will include the development of measurement parameters to track the success of the PSP role in helping to improve patient safety.

Working with patient and public voice partners, the national patient safety team will in 2019/20 publish a full framework for involving PSPs in patient safety. The aim is for all safety-related clinical governance committees (or equivalents) in NHS organisations to include two PSPs by April 2021 and for them to have received required training by April 2022.

Patient safety education and training

Patient safety experts use guidance, tools, methodologies, programmes, initiatives, projects and policies to encourage, cajole and incentivise people to do what safety experts believe is necessary. People are told what to do instead of being given the knowledge to make care safer themselves. While safety is now better understood, significant numbers of people still have a limited understanding of safety science.[58,59,60]

[57] https://www.england.nhs.uk/wp-content/uploads/2017/08/patient-and-public-voice-partners-expenses-policy-oct-17.pdf
[58] https://improvement.nhs.uk/resources/future-of-patient-safety-investigation/
[59] https://www.cqc.org.uk/publications/themed-work/learning-candour-and-accountability
[60] https://www.cqc.org.uk/news/stories/learning-never-events

Other high risk industries teach their workforce about safety and the NHS should do the same. This is not the same as teaching clinicians how to practise safely – that happens already. It is about teaching everyone in healthcare that error is normal and what the right approaches are to reduce risk and maximise the chances of things going well. A significant, complex and lengthy programme of work will be required but, if successful, it will have more impact than any other action in this strategy.

Prof Wendy Reid, Executive Director of Education and Quality and National Medical Director at Health Education England (HEE), describes the plans for a universal patient safety syllabus and training programme for the whole NHS.

Box 13: The patient safety syllabus

We are collaborating with the national patient safety team, other national partners, local systems and regulators to broaden and deepen training; to make it possible for every member of the NHS to access consistent, high quality patient safety resources according to their role. We have been asked to:

- develop a robust, achievable and aspirational plan for patient safety training for the NHS
- make safety training within professional educational programmes explicit and mapped to the competencies in a national syllabus
- ensure every member of the NHS has access to patient safety training; from ward to board and from commissioner to provider.

HEE will work with NHS Improvement and NHS England to produce the best informed and safety-focused workforce in the world. Developing a consistent national patient safety syllabus to apply across a variety of competence levels and address the different learning needs of 1.3 million staff in 350 different careers is an enormous undertaking. Concerted effort over years will be needed to embed it in existing training curricula and for local systems to commission and deliver the training throughout their workforce.

Delivering a multidisciplinary syllabus

Developing this new syllabus will need the support of universities and higher education institutions, patients, local systems, providers, regulators and others.

To maximise the speed at which training is implemented we will:

- take advantage of existing educational programmes and build on evidence-based education and training using existing educational resources and infrastructure

- design educational activities that can be delivered as efficiently and effectively as possible, using technology-enhanced learning and encouraging collaboration

- encourage, where appropriate, simulation learning as a form of safe experiential learning, allowing people to fail safely rather than being put in high risk processes too early in their training.

All staff will follow the same syllabus. However, working with system partners, HEE will ensure that this high quality patient safety training is available to staff at an appropriate level, from an **introduction to patient safety** for staff new to the NHS to **specialist training modules** for our proposed patient safety specialists and others who are interested.

Figure 3: Potential modules for a national patient safety syllabus (from the Academy of Medical Royal Colleges patient safety syllabus)

| Systems approach to patient safety | Learning from incidents | Human factors and safety management | Creating safe systems | Being sure about safety |

Where possible, patient safety training will be delivered in multidisciplinary teams and across patient pathways to reflect the way services are delivered. This will help people learn about safety alongside others in a collaborative manner – this learning approach itself enhances patient safety.

The responses to the strategy consultation gave us valuable ideas for what to include in patient safety training. HEE will work to ensure the syllabus can be implemented

across all healthcare sectors and all staff groups and will apply its quality framework to evaluate training and assure quality.

We intend to explore a credentialing approach to provide a level of confidence to the NHS in relation to the skills people acquire through their training.

HEE will collaborate with regulators, other NHS organisations, and education providers through 2019/20 to build on existing curricula and syllabuses, including those developed with the Academy of Medical Royal Colleges and the WHO.[61]

Patient safety specialists

Giving everyone in the NHS a foundation level understanding of patient safety is critical, but we also need experts to lead on safety in their own organisations. Joan Russell, Head of Patient Safety Policy and Partnerships, and Wayne Robson, Head of Patient Safety Cross System Development, describe plans for designating and networking these 'patient safety specialists'.

Box 14: Patient safety specialists

Feedback from the consultation strongly supported the development of a network of patient safety specialists in local systems.

These specialists should be recognised as key leaders within the safety system, visible to their organisations and others, able to support their organisations' safety work. In some ways the concept is similar to designating someone a Caldicott Guardian,[62] Director of Infection Prevention and Control[63] or Freedom to Speak Up Guardian.[64] But in contrast to these designations we want the introduction of the patient safety specialist concept to develop existing people and roles rather than create new posts.

---

[61] https://www.who.int/patientsafety/education/en/
[62] https://www.gov.uk/government/groups/uk-caldicott-guardian-council#manual-for-caldicott-guardians
[63] https://webarchive.nationalarchives.gov.uk/20120118171542/http://hcai.dh.gov.uk/files/2011/03/Document_DIPC_role_FINAL_100810.pdf
[64] https://www.cqc.org.uk/sites/default/files/20180213_ngo_freedom_to_speak_up_guardian_jd_march2018_v5.pdf

Who should be a patient safety specialist?

Individuals across the NHS are already performing roles similar to those conceived for a patient safety specialist. All local systems and supervisory organisations (NHS regional teams, regulators) have relatively senior people in post with responsibility for patient safety, in many cases alongside wider responsibilities, such as 'head of quality' or 'head of clinical governance'.

That is why we will develop the patient safety specialist concept by asking NHS organisations to identify at least one person to be developed as their proposed patient safety specialist by April 2020 and to notify the national patient safety team who this person is.

Developing the patient safety specialist role

With these proposed specialists we will explore and agree the key attributes that specialists should have on an enduring basis, what they should be responsible for and how they can be supported to perform their role. We will explore the potential for further professionalising the role, through accreditation or similar mechanisms.

Responsibilities

While work will be needed to specify further details, we think the patient safety specialist should have oversight of and provide support for patient safety activities across their organisations. Part of their role will be to ensure that systems thinking, human factors and just culture principles are embedded in all patient safety activity. They will need to work closely with others, including medical device safety officers and medication safety officers, and should support the fundamental principle that patient safety is everyone's responsibility – a specialist is not accountable for an organisation's safety on their own.

Training

Training for patient safety specialists will be based on the national patient safety syllabus developed with HEE and will be guided by identifying what skills need to be added to those already available.

Patient safety specialist networks

Patient safety specialist networks will be developed, operating on a local, regional and national basis to provide peer support for those in the role, help them to keep up

to date and share good practice, and facilitate engagement with regional colleagues and the national patient safety team.

Safety I and Safety II

There is clear enthusiasm and interest in widening patient safety thinking beyond a focus on the rare examples of things going wrong ('Safety I') to why things routinely go right in healthcare ('Safety II').[65] Suzette Woodward builds on the work of Safety II pioneers like Sidney Dekker and Eric Hollnagel to explore Safety II.

Box 15: Safety II – safety differently

Asking how we 'do' Safety II is a fair and important question, but it is problematic. People ask the question because the case for Safety II is compelling; they feel inspired by it. But Safety II is not about writing procedural documents, checklists or top-down interventions. Asking for the checklist or policy on what to do retains a Safety I mindset. Safety II needs a different form of insight; understanding the messy details of work, the nuances and subtleties of what it means to get stuff done despite the pressures, the resource limitations and goal conflicts. So what does this mean in practice?

Safety II in practice

A good place to start is to teach people how to study what is currently being done, using techniques like ethnography and video diaries to truly understand how people continuously adapt to fit the circumstances they are in. Study the system dynamics – for example, the way people adjust or make trade-offs to be able to continue to provide safe and good quality care when equipment or documentation is unavailable.

People need to know that the act of keeping patients safe is about having a constantly enquiring mind; noticing what happens every moment of every day; noticing when things go right; noticing when they could go wrong; and noticing when they do go wrong. They will then appreciate how they constantly adapt their behaviour and practice to work safely.

[65] Hollnagel E, Wears RL, Braithwaite J (2015) *From safety-I to safety-II: a white paper* https://www.england.nhs.uk/signuptosafety/wp-content/uploads/sites/16/2015/10/safety-1-safety-2-whte-papr.pdf

Conversations are important. Appreciative inquiry and learning from excellence create a more positive culture and provide meaningful positive feedback. Ask people who complete certain tasks every day how they get them done and what gets in the way of doing their daily work. They could report problems via an incident reporting system without waiting for an incident to happen; this can free up the whole process of learning as it will not be restricted by any reticence to report actual errors and harm. Leaders should have humility and a curiosity to discover how the world looks from others' points of view; and the self-discipline to halt judgement and develop explanations for why people do what they do.

Integrating Safety II, complexity science and implementation science could result in tailored solutions which factor in everyday situations and take account of complexity when translating research into practice. Instead of simplistic solutions to a complex problem, more sophisticated models would work better for the unpredictability and uncertainty of a complex system. And instead of seeing the variables in the system as difficulties to overcome, they would be seen as normal conditions to work with. This also moves from a 'one size fits all' approach to a realist view of healthcare, one that it is made up of multiple different types of suborganisational units.

As part of the strategy implementation, the NHS will explore how to give people the skills to take a Safety II approach without losing their focus on Safety I. The NHS will embed training in learning from what goes well alongside other prospective safety improvement techniques in the new national patient safety syllabus. Safety II principles are also being embedded in the system that will replace the NRLS.

Independent sector

The independent sector provides NHS-funded healthcare and is part of the overall healthcare system in England. David Hare, Chief Executive of the Independent Healthcare Providers Network, describes the importance of independent sector involvement in improving patient safety.

Box 16: Improving the alignment between NHS and independent sector healthcare

Alignment of patient safety standards between the NHS and independent sector has sometimes been ineffective. This needs to change with the healthcare system

adopting a 'whole systems approach' to safety, driven by aligned data, established communications channels, patient involvement, continuous improvement and strong clinical governance in both sectors.

This starts by ensuring and enabling independent sector providers to submit data to key NHS safety databases and to participate in clinical audits.[66] This information then needs to be used by the healthcare system to drive continuous improvement and transparently report to all patients the nature, quality and safety of services delivered by all healthcare providers.

Different reporting requirements exist for NHS and private patients. The Acute Data Alignment Programme (ADAPt) being developed under the joint leadership of the Private Healthcare Information Network[67] and NHS Digital will be critical in integrating data on privately-funded healthcare into NHS systems and standards for the first time.

Healthcare systems across the UK have seen a shift in culture in recent years, to one that is more just, open and transparent. Important developments here have been good practice around whistleblowing and a speaking-up culture. Most independent providers have a dedicated person(s) appointed as a Freedom to Speak Up Guardian and the sector is committed to championing the role.

---

[66] https://www.rcseng.ac.uk/news-and-events/media-centre/press-releases/assuring-standards-independent-sector/

[67] The independent, government-mandated source of information for private healthcare.

Improvement

'Improvement' work aims to develop and support safety improvement programmes that prioritise the most important safety issues and employ consistent measurement and effective improvement methods.

Continuous improvement

The NHS safety system must support continuous and sustainable improvement, with everyone habitually learning from insights to provide safer care tomorrow than today. Quality improvement provides the necessary coherence and aligned understanding of this shared approach to maximise its impact. It offers tools to understand variation, study systems, build learning and capability, and determine evidence-based interventions and implementation approaches to achieve the desired outcomes.

The National Patient Safety Improvement Programme

Natasha Swinscoe, Chief Executive of the West of England Academic Health Science Network and Patient Safety Collaboratives lead, and Phil Duncan, Head of Patient Safety Programmes, describe how the National Patient Safety Improvement Programme will use the principles of continuous quality improvement to deliver safer care.

Box 17: The National Patient Safety Improvement Programme

The opportunity

In 2014, the National Patient Safety Collaborative Programme (NPSCP) was established to address the recommendations in the Berwick report that: "The NHS should be given the resources to support and learn from existing collaborative safety improvement networks and to sponsor the development of new regional or sub-regional collaborative networks across the country, potentially aligned to and working with the new Academic Health Science Networks ….and every NHS organisation should participate in one or more collaborative improvement networks as the norm.''

Building on the work of the last five years, the revised national patient safety improvement programme (NPSIP), supported by the Patient Safety Collaboratives (PSCs) across England that are commissioned through and hosted by the 15

Academic Health Science Networks (AHSNs), will be a key improvement and delivery arm of the NHS Patient Safety Strategy.

National priorities for 2019/20

Building on the work of the NPSCP, four national priorities have been identified because of their potential to enable the most significant impact on patient safety.

Figure 4: Driver diagram for the NPSIP
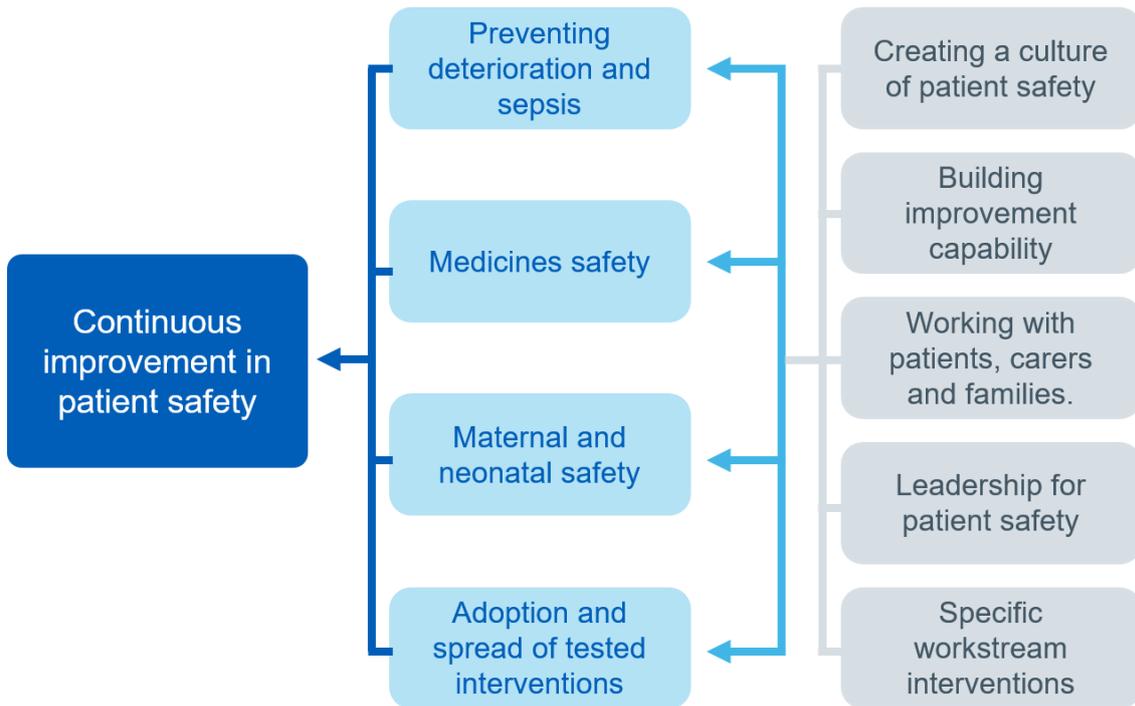
Here we discuss preventing deterioration and sepsis, and adoption and spread, with medication safety and maternal and neonatal safety covered later.

Preventing deterioration and sepsis

Our work will continue to focus on avoiding harm or death caused by unrecognised or untreated deterioration in a patient's condition wherever they are being cared for. The successful adoption of version 2 of the national early warning score (NEWS2) across acute and ambulance trusts in England, helped by NPSCP and many others, gives us the platform to improve the management of deterioration across the whole patient journey.

NEWS2 adoption does not address all the challenges though. Greater impact will be achieved by improving the reliability of the deterioration pathway in three main

domains, underpinned by excellent communication between professionals and with patients:

- **Recognition**: the expedient recognition of deterioration including sepsis through the reliable monitoring, identification and assessment of all patients' conditions in all environments.
- **Response**: the reliable activation, timely response and communication of deterioration.
- **Escalation**: the reliable escalation and de-escalation of clinical interventions and review by senior clinicians, to include advance care planning to reduce inappropriate care.
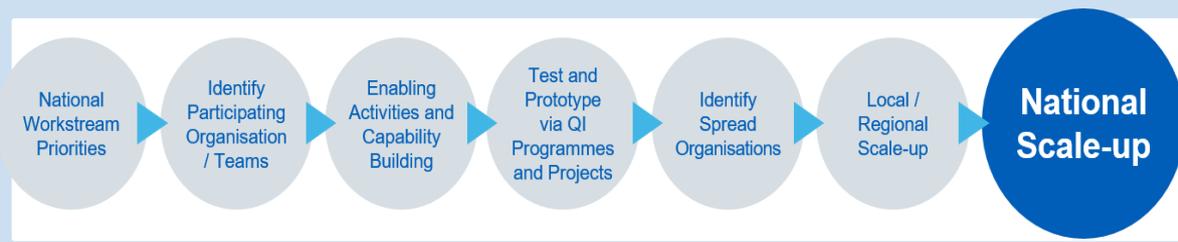
West of England AHSN have used early warning scoring across their system, including primary care, with impact on mortality including from sepsis.[68] PSCs more widely are starting to adopt similar approaches during 2019/20. NHS England and NHS Improvement are also working with the Royal College of Paediatrics and Child Health and Royal College of Nursing to develop a national paediatric early warning system (PEWS) to help improve the recognition and response to deterioration in acutely ill children.

Adoption and spread priorities

We will work to ensure effective evidence-based practice is identified, shared, spread and adopted as quickly as possible. NPSIP will support local and regional approaches for adoption and spread across representative organisations for the following priority interventions:

- emergency laparotomy care bundle
- PReCePT
- emergency department safety checklist
- chronic obstructive pulmonary disease (COPD) care bundle.

Figure 5: The adoption and spread approach

National Workstream Priorities → Identify Participating Organisation / Teams → Enabling Activities and Capability Building → Test and Prototype via QI Programmes and Projects → Identify Spread Organisations → Local / Regional Scale-up → **National Scale-up**

[68] https://www.weahsn.net/our-work/improving-patient-safety/the-deteriorating-patient/news/

NPSIP will build on NPSCP's work to enable and build capability by focusing on working with and coaching teams involved with projects that support the national priorities identified by NHS England and NHS Improvement.

Future programme delivery

We will work to achieve the most effective and sustainable regional delivery model with better co-ordination between the 15 PSCs and NHS regional teams and oversight by NHS England and NHS Improvement national teams.

Our key programme objectives for 2020 to 2025 will be to:

- continue to deliver safety improvement in the four current priority areas
- develop an improvement pipeline using national insights and recommendations to inform future improvement work for 2020/21 onwards
- work with 'test' organisations to support adoption and spread
- support local engagement across all care settings through structured quality improvement safety initiatives
- continue to support the conditions for a safety culture to flourish
- build leadership and safety improvement capability across the system
- support improvements in the measurement of patient safety and publish the learning from and impact of this programme
- support the NHS to learn from both harm and excellence.

The Maternity and Neonatal Safety Improvement Programme

Dr Tony Kelly, national clinical lead for the Maternity and Neonatal Safety Improvement Programme (MNSIP, previously the Maternity and Neonatal Health Safety Collaborative) describes the MNSIP's work.

Box 18: Maternity and neonatal safety improvement

In 2017, there were 646,794 live births in England with 4.1 stillbirths and 2.8 neonatal deaths per 1,000 live births.[69] Rates of stillbirths and neonatal deaths continue to fall. The care provided to mothers and babies in England is safe and of high quality. Unfortunately, errors still occur and account for a significant proportion of the clinical negligence claim costs described earlier. Our national ambition is to reduce the rate of stillbirths, neonatal deaths and asphyxial brain injury by 50% by 2025.

How can we learn more effectively?

The volume of insight being generated in maternity and neonatology will increase over the next few years with episodes of harm being investigated by multiple organisations (eg Each Baby Counts, HSIB, NHS Resolution and Mothers and Babies: Reducing Risk through Audits and Confidential Enquiries – MBRRACE). This process will be simplified for organisations with the creation of a single portal for reporting episodes of harm.

The programme will also widen its remit to support the new elements in the Saving Babies Lives Care Bundle (2019):[70] **risk assessment, prevention and surveillance of pregnancies at risk of fetal growth restriction, raising awareness of reduced fetal movement and some aspects of reducing preterm birth**. These improvements will increase not only effective recognition and response but also our ability to predict and prevent harm.

How can the system support effective improvement in the safety, quality and experience of care?

We have engaged with large numbers of healthcare workers from various professions to establish a foundation of leadership and capability for improvement across the system. Building on the improvement capability that now exists, work will increasingly focus on system-level improvement.

Our key programme objectives for 2020 to 2025 are to:

---

[69] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/childmortalitystatisticschildhoodinfantandperinatalchildhoodinfantandperinatalmortalityinenglandandwales

[70] https://www.england.nhs.uk/publication/saving-babies-lives-version-two-a-care-bundle-for-reducing-perinatal-mortality/

- scale up improvement based on the current five clinical priority areas in Figure 6 below

- support improvements in other areas as defined in the Saving Babies Lives Care Bundle

- develop an improvement pipeline using key national recommendations to inform future improvement work

- work with test organisations to support national adoption and spread

- further develop local learning systems

- develop a national maternity and neonatal improvement faculty to support improvement capability and safety culture awareness (building on culture surveys and clinical leadership across England).

Figure 6: Driver diagram for the MNSIP
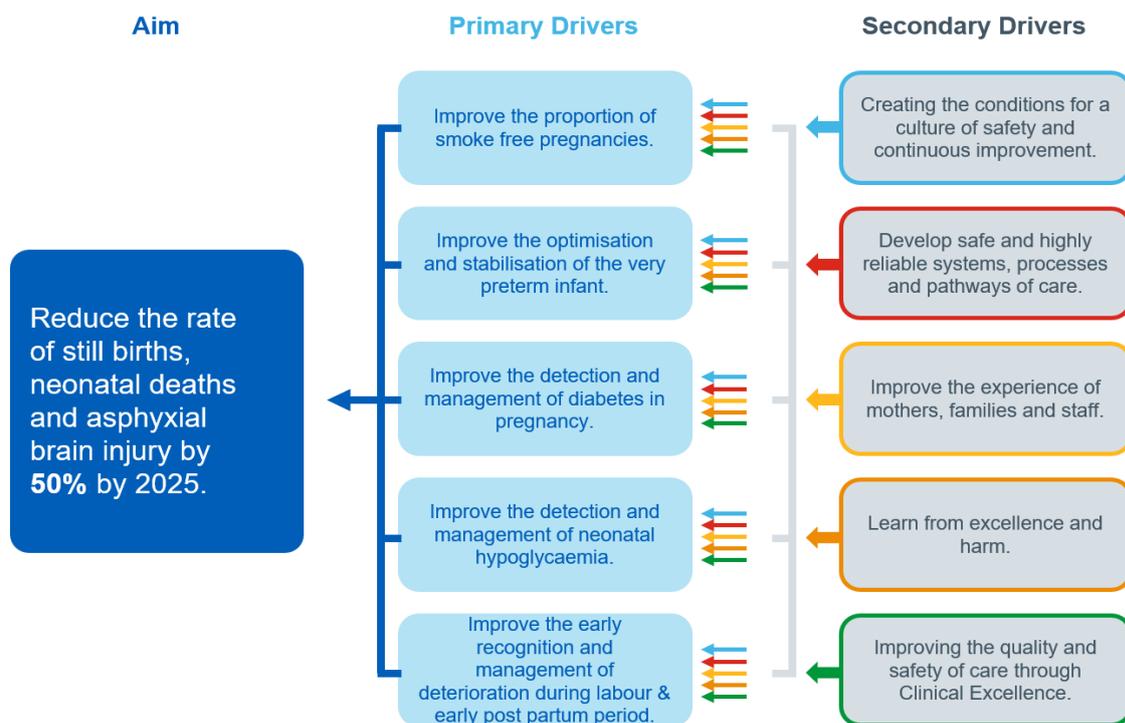
The Medicines Safety Improvement Programme

The Medicines Safety Improvement Programme (MSIP) aims to reduce medication-related harm in the NHS, focusing on high risk drugs, situations and vulnerable patients. The programme will contribute to the WHO Challenge target to reduce

severe avoidable medication-related harm globally by 50% over five years. Deborah Williams, MSIP Programme Lead, and Richard Cattell, Deputy Chief Pharmaceutical Officer, describe their plans.

Box 19: The Medicines Safety Improvement Programme

An estimated 237 million medication errors occur in England every year,[71] 66 million of which are clinically significant. The third WHO Global Patient Safety Challenge: Medication Without Harm has set a global challenge which aims to reduce severe avoidable medication-related harm by 50%, globally by 2022.

The MSIP aims to:

- define and achieve measurable reductions in medication harm in the NHS
- implement an action plan for continuous improvement in medication safety
- empower patients and professionals to share decision-making
- focus on patient outcomes related to medicine safety, alongside the existing focus on the value of medicines
- contribute to wider efforts to foster a safety culture in the NHS
- develop a plan to sustain improvement after the programme ends
- deliver the NHS contribution to the WHO Global Challenge.

Delivering improvement

In the programme's first year we will make progress to deliver system enablers, including better shared decision-making, training and the implementation of electronic prescribing systems. We will enable case finding in primary care; for example, PINCER, a pharmacist-led information technology intervention for reducing clinically important errors in general practice prescribing. This will support work to reduce prescribing error rates by 50%, improving safety and reducing costs. AHSN-supported national roll-out will reach at least 40% of GP practices by 2020.

DHSC has allocated £68 million for EPMA systems in NHS trusts for the 2018 to 2021 funding period. Thirteen trusts were allocated a total of £16 million in 2018/19 and the allocation of the second tranche of funding is underway.

---

[71] http://www.eepru.org.uk/wp-content/uploads/2018/02/eepru-report-medication-error-feb-2018.pdf

We will support an initial set of priority projects linked to the evidence base and the NHS Long Term Plan:

Project	Success measures
Develop an exemplar to illustrate best practice in transition of patients on anticoagulants from hospital to care home	% anticoagulant monitoring delivered within a specified time % complete records arriving with patient % appropriate prescribing
Improve drug administration safety in care homes through regular medication review	Reduction in wasted medicines Medicines delivered on time Fewer omitted medicines
Commission shared decision-making (SDM) training for clinical pharmacists moving into PCNs, to work with patients with atrial fibrillation (AF) on anticoagulants	Number of pharmacists trained in SDM % of patients in PCN within safe range % AF patients with stroke risk assessed on anticoagulants Use of patient 'self-efficacy/engagement' measure
SDM/self-management support for clinical pharmacists starting with people on opioids	Number of pharmacists trained in SDM Reduction in opioid prescribing (120 mg morphine equivalent) in patients with chronic, non cancer-related pain Evidence of good pain control
Enabling structured medicines reviews across an advanced STP/ICS starting with population at risk due to polypharmacy	% structured reviews of at-risk population – resulting in change/no change Problematic polypharmacy in people with frailty Number of medicines taken by each patient

The programme will also develop a project pipeline to focus initially on the best understood risks. Suggested next projects include:

- exemplars of best practice for transitioning patients with mental health needs
- tackling drug omissions, specifically antibiotics, insulin and anti-parkinsonian drugs
- maximising the benefits of an integrated pharmacy system to address frailty
- training in SDM around high risk medicines (eg insulin), patients or situations
- inclusion of medicines management standards in digital standards for the shared record.

The Mental Health Safety Improvement Programme

Dr Helen Smith, National Clinical Director of the Mental Health Safety Improvement Programme (MHSIP), describes the work to address important safety challenges in the mental health sector.

Box 20: The Mental Health Safety Improvement Programme

In *The state of care in mental health services 2014-2017*, CQC identified safety as the biggest concern for mental health services. The MHSIP aims to provide both bespoke support to mental health trusts on their individual safety priorities as well as support around challenges that are common across many or all local systems.

The MHSIP works with the 54 NHS trusts providing mental health services in England, and closely with CQC centrally and with CQC and NHS Improvement teams regionally. The programme is delivered by a team of experts in mental health, some of whom have board-level and quality improvement professional experience and some lived experience of our services, either as a service user or as a carer of someone who has used services.

This programme has two main components.

1. The trust engagement programme

The MHSIP team meets every trust executive team after CQC reports on its inspection of the trust. Before this meeting the MHSIP team will have met the regional CQC and NHS teams to develop a shared understanding of each organisation's safety concerns. We work collectively to determine what a trust's priorities are and to devise an improvement plan accordingly. We aim to develop a safety improvement plan for each trust by April 2020.

Once complete we will move resources from the engagement programme to supporting the improvement collaborative programme.

2. The improvement collaborative programme

This component concerns the complex safety problems in mental health. It uses quality improvement for testing, measuring and improving.

Work is already underway to reduce restrictive practice (restraint, seclusion and rapid tranquilisation) by a third by April 2020. A collaborative to improve sexual safety is being designed and will launch at the end of this year. We are inviting all NHS mental health inpatient providers to nominate a ward to participate in this improving sexual safety collaborative.

Safety issues that particularly affect older people

Patient safety issues such as falls, pressure damage, infections and problems related to nutrition and hydration affect older people more than any other population group. Specific safety initiatives to address the complex factors behind these issues are an important and enduring feature of the NHS's work.

Recognising this, NHS Improvement and NHS England will continue to facilitate the Falls Collaborative Programme.[72] From 2019 to 2021 we will offer providers bespoke support that targets the issues highlighted in the national falls audit. Alongside this, the national falls practitioner network will facilitate the sharing of best practice. For 2019/20, a Commissioning for Quality and Innovation (CQUIN) incentive scheme has been implemented to improve the prevention of falls in hospital.[73] Wider work on proactive management of older people with frailty – as signalled in the NHS Long Term Plan – will have an impact too, including by spreading the use of the electronic frailty index[74] and routine frailty identification by GPs, together with direct multidisciplinary assessment in PCNs. These approaches are designed to prevent frailty-related syndromes like falls. In addition, crisis response and same-day emergency care services plan to reduce avoidable admissions[75] and the associated deconditioning harm that can result following falls and injury. We are considering the value of creating an acute frailty bundle and focusing more on the management of patients presenting to hospital with acute frailty syndromes, akin to how we have focused on sepsis.

NHS England and NHS Improvement have worked with NHS Digital and the DHSC medications safety dashboard to develop indicators linking national prescribing data

[72] https://improvement.nhs.uk/resources/patient-falls-improvement-collaborative/
[73] https://www.england.nhs.uk/nhs-standard-contract/cquin/cquin-19-20/
[74] https://www.england.nhs.uk/ourwork/clinical-policy/older-people/frailty/efi/
[75] https://improvement.nhs.uk/resources/ambulatory-emergency-care-guide-same-day-acute-frailty-services/

on long-term use of sedatives with hospital admissions for falls and fractures. Work continues to develop further metrics related to bone health medicines.

The Stop the Pressure Programme (STPP)[76] has already delivered a revised definition and measurement framework, the launch of the national pressure ulcer audit, a new education curriculum, a national pressure ulcer improvement collaborative and nutrition improvement resources. By October 2019 bespoke improvement resources for some specialist clinical areas will be available for all provider settings. Since September 2018, the STPP has been linked to the new national wound care strategy[77] which extends beyond hospitals and into primary care, domiciliary and social care settings. This national strategy concerns the development of relevant pathways of patient care, workforce, education, research and developing an approach to data. In addition to pressure ulcers, the strategy focuses on improving the care of lower limb and surgical wounds.

Learning from the nutrition improvement collaboratives[78] will be used to develop further improvement initiatives on nutritional care. These will include helping to facilitate sharing and spreading of good practice.

Improving the safety of the interfaces between health and social care and indeed improving safety in care homes must be explored further. The enhanced health in care homes[79] model helps keep people away from A&E and emergency admissions and is being rolled out across England as part of the NHS Long Term Plan. Further initiatives in this sector will be explored including those on falls risk reduction, optimised nutrition, hydration, pressure ulcer prevention and medicines safety and optimisation.

Safety and learning disabilities

There has been a recent focus on the quality of care provided to people with a learning disability in England, prompted in part by significant failings identified in their

---

[76] http://nhs.stopthepressure.co.uk/
[77] https://www.ahsnnetwork.com/about-academic-health-science-networks/national-programmes-priorities/national-wound-care-strategy-programme/
[78] https://improvement.nhs.uk/resources/nutrition-and-hydration-collaborative/
[79] https://www.england.nhs.uk/new-care-models/about/care-homes-sites/

care.[80,81,82] Dr Jean O'Hara, National Clinical Director for Learning Disabilities, describes what is being done.

Box 21: Learning disabilities

The NHS Long Term Plan emphasises the approach that is needed to address the longstanding health inequalities and inequities that have led to poorer outcomes, harm and premature deaths. This includes ensuring people with a learning disability are more visible; that they are listened to; and that reasonable adjustments are made to ensure they have better access to healthcare. The government has consulted on the introduction of mandatory training on learning disability and autism to give health and care staff the knowledge and skills to accomplish this and will be responding to the consultation in the coming months. The Learning Disabilities Mortality Review programme (LeDeR)[83] provides insight about the care provided to those with a learning disability who die and has already shown they experience more respiratory problems, diagnostic overshadowing[84] and under-recognition of early deterioration. LeDeR is being accelerated and will be supported and aligned with the medical examiner system.

Greater understanding of the safety issues experienced by people with a learning disability supports our improvement work:

- **Expanding STOMP and STAMP:** 17% of people with a learning disability living in the community and known to their GP are receiving antipsychotic medication compared to about 1% of the general population. 30,000–35,000 people with a learning disability receive daily antipsychotic medication when there is no clinical reason for this documented in their GP notes. STOMP[85] (Stopping Over Medication of People with Learning Disabilities) aims to reduce harm from the effects of inappropriate psychotropic medicine use.

[80] https://www.gov.uk/government/publications/winterbourne-view-hospital-department-of-health-review-and-response
[81] https://www.england.nhs.uk/2015/12/mazars/
[82] https://www.bbc.co.uk/news/health-48388430
[83] https://www.england.nhs.uk/learning-disabilities/improving-health/mortality-review/
[84] Diagnostic overshadowing is the tendency, once a diagnosis is made of a major condition, all other problems are attributed to that diagnosis. In the context of people with a learning disability, the term is used to describe how "symptoms of physical ill health are mistakenly attributed to either a mental health/behavioural problem or as being inherent in the person's learning disabilities". https://www.gmc-uk.org/learningdisabilities/200.aspx
[85] https://www.england.nhs.uk/learning-disabilities/improving-health/stomp/

STAMP[86] (Supporting Treatment and Appropriate Medication in Paediatrics), launched in December 2018, supports children and young people to be involved in decisions about their medication and avoid inappropriate psychotropic medication.

- **Ask Listen Do:**[87] too often the voices of those with learning disabilities are not heard, even when they or their relatives raise concerns about the safety of services. Ask Listen Do supports organisations to learn from and improve the experiences of people with a learning disability and their families and carers when they raise a concern or give feedback. It also makes it easier for people, families and paid carers to give feedback, raise concerns and complain.

- **Care and treatment reviews (CTRs):**[88] hospitals can be risky places, so encouraging people to find alternatives to hospital admissions where appropriate is important. People with a learning disability can present with behaviours services find challenging. Being admitted to hospital, particularly when the environment is inappropriate, can escalate those behaviours, increasing the likelihood the person stays longer and experiences restrictive practices such as physical or chemical restraint, segregation and seclusion. A person-centred approach and support from people who know them best often leads to better outcomes. A recent focus has been the quality of care and recording, monitoring and reducing restrictive practices.[89,90] Around 80% of people can avoid hospital admission with a pre-admission CTR, reducing their risk of future harm.[86,91] The NHS Long Term Plan looks to strengthen CTRs (and care, education and treatment reviews (CETRs) for children and young people). All areas will be monitored against a 12-point discharge plan to ensure discharges are timely and effective.

[86] https://www.england.nhs.uk/learning-disabilities/improving-health/stamp/
[87] https://www.england.nhs.uk/learning-disabilities/about/ask-listen-do/
[88] https://www.england.nhs.uk/learning-disabilities/care/ctr/
[89] https://cqc.org.uk/publications/themed-work/interim-report-review-restraint-prolonged-seclusion-segregation-people
[90] https://digital.nhs.uk/data-and-information/data-collections-and-data-sets/data-sets/mental-health-services-data-set
[91] https://cqc.org.uk/publications/themed-work/interim-report-review-restraint-prolonged-seclusion-segregation-people

- By 2023/24 all NHS-commissioned care will meet the learning disability improvement standards.[92] There are four standards, each supported by a range of metrics which providers are expected to measure themselves against. As a world first, the process for assuring delivery of the standards is facilitated via a triangulated approach. This requires the input of board-level representation, clinical representation and direct feedback (provided anonymously) from people who have accessed a particular service. It is expected that over time the standards will help create new benchmarks and enable providers of NHS-funded care to consistently identify where challenges exist, alongside highlighting exemplars in service delivery and provision.

Antimicrobial resistance and healthcare-associated infections

The Annual Report of the Chief Medical Officer (2011)[93] brought the threat of antimicrobial resistance (AMR) to the fore. Elizabeth Beech, national patient safety team AMR programme lead, and colleagues discuss the national importance of tackling AMR and healthcare-associated infections.

Box 22: AMR and healthcare associated infection

Where we are now

AMR is driven by several complex, interwoven factors and compounded by a lack of industry innovation with no new classes of antibiotic discovered since the 1980s. The number of drug-resistant infections continues to rise, threatening the provision of safe and effective patient care and increasing treatment costs.

Efforts to tackle AMR in healthcare involve prevention of infection, diagnostic stewardship and optimisation of antibiotic use to reduce the emergence and spread of resistant infections. Notable successes include sustained reductions in methicillin-resistant *Staphylococcus aureus* (MRSA) bloodstream infections and *Clostridium*

[92] https://improvement.nhs.uk/resources/learning-disability-improvement-standards-nhs-trusts/
[93] https://www.gov.uk/government/publications/chief-medical-officer-annual-report-volume-2

difficile infection, alongside significant reductions in use of broad-spectrum and total antibiotics in community and hospital care.

What next?

A new UK National Action Plan for AMR was published alongside a 20-year vision in January 2019. It has a focus on reducing healthcare-associated infection (HCAI), in particular aiming to reduce healthcare-associated Gram-negative blood stream infections (GNBSIs) by 50% by 2023/24.

The NHS Right Care Urology Programme will support commissioner activity to continue to improve safe and effective management of urinary tract infection (UTI) in primary care, reducing the risk of GNBSIs and inappropriate use of antibiotics in older people.

The GIRFT surgical site infection survey[94] started in 2017 seeks to complement the work of PHE by engaging frontline clinicians in exploring variation in surgical practice and infection outcomes for a wider range of procedures and specialties.

The promotion of vaccination against, for example, influenza remains a priority to prevent the development of secondary respiratory tract infections, and therefore avoid the need for antibiotic use.

Ongoing improvement in antimicrobial prescribing in secondary care will be supported by upgrading EPMA systems and decision support tools. This will align with our commitments in the Medication Safety Improvement Programme to enable better patient-level data acquisition through increased standardisation of coding practices as well as improved antimicrobial stewardship.

During 2019/20 we are using a CQUIN scheme to extend improvement in the diagnosis and treatment of lower UTI in older people in acute hospital care, ensuring PHE's and the National Institute for Health and Care Excellence's (NICE) diagnostic and antimicrobial prescribing guidance is rapidly adopted, supported by publication of the 'To Dip or Not To Dip' improvement toolkit. These resources are also being used for workforce development in health and social care organisations, including in NHS England's Medicines Optimisation in Care Homes workforce development programme.

---

[94] https://gettingitrightfirsttime.co.uk/cross-cutting-stream/surgical-site-infection-audit/

> The CQUIN scheme is also incentivising appropriate antibiotic prophylaxis for colorectal surgery.
>
> All these initiatives will help prevent infection and improve diagnostic stewardship and appropriate use of antimicrobials, ensuring delivery of the UK National Action Plan to tackle AMR and make patient care safer.

Research and innovation

Safety improvement relies on innovation, be that incremental or disruptive, and innovation relies on research to generate and test new ideas.

An obvious example relates to Never Events – incidents that are considered wholly preventable because national safety recommendations that provide strong systemic protective barriers should have been implemented by all local systems. Never Events are rare[95] but still occur. CQC found[96] that prevention of the most common Never Events relies on repeated completion of procedural safety requirements like checklists and training programmes. Never Events that are prevented by a one-off technical solution are much rarer. Technical innovations that act as barriers to people getting things wrong can have a greater impact on Never Event prevention and move us away from expecting people to try really hard to compensate for systems that do not always support them.

Adoption of evidence-based tools to support safety priorities as well as developing innovative solutions to pre-empt emerging threats is therefore a priority. Dr Kelsey Flott from Imperial College Patient Safety Translational Research Centre describes how research and innovation are helping to meet this challenge.

> ## Box 23: Research and innovation
>
> The parallel approach to research and innovation involves a two-way bridge for information flow: from existing scientific evidence to the frontline, and from the frontline back to scientific evidence building. In the NHS, this bridge can be built

---

[95] https://improvement.nhs.uk/resources/never-events-data/
[96] https://www.cqc.org.uk/sites/default/files/20181224_openingthedoor_report.pdf

between national bodies and universities, independent research groups and private industries working at the cutting edge of knowledge development.

The National Institute for Health Research (NIHR)-funded Patient Safety Translational Research Centres (PSTRCs) exist to do just this – to pull advances from basic research of potential relevance to patient safety into early pilot/feasibility clinical, applied and health services research of relevance to patient safety. They provide a vital route for innovation in patient safety, involving patients at all stages of commissioning research.

The research process in safety is different from basic science: it demands involvement from patients and staff to be considered valid and to have impact. The PSTRCs' research and innovation strategy hinges on the principles explained in the 'Involvement' section above. This collaborative type of research aligns closely with the philosophy of human-centred design, which focuses on the creation of innovations based on science and rooted in reality and human factors.

The foundations of this NHS Patient Safety Strategy – a patient safety culture and patient safety system – rely on an active pipeline of innovation that starts right at the beginning of the research lifecycle. At the other end of the pipeline, mature research programmes require partnership with bodies like the PSIP-funded Patient Safety Collaboratives, embedded in AHSNs as described earlier, to support the diffusion of innovations across settings and geographies.

In recognition of this, from 2017 to 2022, £17 million is being invested in the PSTRCs: Imperial College Healthcare NHS Trust and Imperial College London,[97] Salford Royal NHS Foundation Trust and the University of Manchester,[98] and Bradford Teaching Hospitals NHS Foundation Trust and the University of Leeds.[99]

Close links will continue to be made between safety leaders across healthcare organisations, the PSTRCs, and local systems. This aligns the research and innovation agenda with healthcare system priorities. Further links will be explored with the wider research agenda – including in relation to healthcare policy – so that patient safety continues to benefit from world-class research and innovation.

[97] https://www.imperial.ac.uk/patient-safety-translational-research-centre
[98] https://www.patientsafety.manchester.ac.uk/
[99] https://yhpstrc.org/

Delivering the strategy

This strategy commits us to actions that will realise our vision – continuously improving patient safety by building on the foundations of a patient safety culture and patient safety system – and support the delivery of our three strategic aims: Insight, Involvement and Improvement. The NHS England and NHS Improvement integrated regional teams will play a key role in delivering those commitments by:

- supporting STPs/ICSs and healthcare providers to implement features of the NHS Patient Safety Strategy
- acting as the conduit for change to help STPs/ICSs and healthcare providers transform their local system to the new ethos and working arrangements embodied in the strategy
- working across NHS England and NHS Improvement to simplify oversight, making it more efficient, aligned, practical, collaborative and able to adapt
- supporting implementation of the NHS Long Term Plan through the LTP implementation framework, which includes expectations of local systems in terms of delivering the NHS Patient Safety Strategy within agreed timescales
- providing leadership in local systems, including creating a coalition of resources to support them to develop and implement plans aligned with the NHS Long Term Plan and NHS Patient Safety Strategy
- setting the ambition for delivering the strategy locally to ensure alignment with regional priorities
- supporting work with the emerging PCNs to develop their role in safety improvement
- ensuring that delivery of the strategy aligns with the new regional operating model and achieves the right balance between assurance and improvement.

Regions will also play a direct role in supporting the NHS Patient Safety Strategy implementation; for example, through:

- consistent safety measurement
- supporting implementation of the Patient Safety Incident Response Framework, including directly commissioning relevant cross-system investigations
- hosting regional medical examiners

- increasing patient safety partner involvement in regional safety activities
- supporting implementation of the safety curriculum (eg identifying challenges, supporting local systems and feeding back to the central team)
- supporting local patient safety specialist networks and designating regional safety specialists (intended to be existing people rather than new posts)
- aligning improvement work with the PSIP and associated programmes
- sharing learning within and across systems.

We summarise our commitments below.

	Objective	Who will deliver this	What and by when
	Strategy updated, detailing progress and changes to plans	National patient safety team	Update published annually every summer
Safety culture	Monitor the development of a safety culture in the NHS	National patient safety team	NHS staff survey q17 (fairness and effectiveness of reporting) and q18 (staff confidence and security in reporting), published annually every spring
			Explore the introduction of further metrics related to safety cultures, eg monitoring levels of staff suspension and of anonymous incident reporting
			Monitoring progress in relation to the well-led framework via CQC inspection outcomes as published
	Support the development of a safety culture in the NHS	Local systems	Local systems to set out in their LTP implementation plans how they will work to embed the principles of a safety culture. These should include monitoring and response to NHS staff survey results and any other safety culture assessments, adoption of the NHS Improvement A Just Culture Guide or equivalent, and adherence to the well-led framework
Safety system	Publish a definitive guide to who does what in relation to patient safety	National patient safety team	Autumn 2019 and reviewed annually alongside the NHS Patient Safety Strategy annual update
	Support workforce development through a new NHS People Plan	NHS England and NHS Improvement	Interim People Plan published June 2019 Full NHS People Plan to follow the next Comprehensive Spending Review

	Ensure understanding of patient safety is embedded across regulatory bodies	National patient safety team working with regulators	Encourage: • uptake of the new patient safety curriculum and training • contribution to the patient safety specialist network • commitment to patient safety partners
	Reflect patient safety in the digitisation agenda	National patient safety team working with clinical leaders, NHS Digital, NHSX, Scan4Safety and others	Make the safety case for the initiatives in Chapter 5 of the NHS Long Term Plan including: • EPMA implementation • record digitisation and data linkage • patient access to their records • clinical decision support
	Enhance safety in primary care	National patient safety team working with primary care leaders	Include patient safety considerations in the NHS Long Term Plan initiatives around primary care including primary care networks
			Expanding incident reporting to more of primary care by replacing the NRLS
			Support primary care involvement in the NPSIP and related programmes as appropriate
			Support the Keeping General Practice Safe component of the 2019 to 2021 GP IT operating model
Insight	Measurement	National patient safety team	Embed the principles of patient safety measurement nationally and work with other organisations to spread adoption

Deliver replacement for the NRLS and StEIS	National patient safety team	Incorporate the ambition to learn from what goes well (Safety II) into the replacement for the NRLS
		Live phase of the new system is expected from Q1 2020/21 (subject to agile system development processes and Government Digital Service approvals)
		Ongoing provision of feedback to local systems to improve reporting, including by publishing national statistics (six monthly)
	NHS Resolution and the national patient safety team	Deliver an aligned Faculty of Learning to share insight from claims as part of the new system
		Develop a shared taxonomy that will enable data analysis across databases
	Local systems	Local systems, including current non-reporters, to connect to the new system by end Q4 2020/21
		Continuous increase in effective incident reporting (note this is not the same as total incident reporting as the replacement for NRLS should improve quality without necessarily increasing quantity)
Implement the new Patient Safety Incident Response Framework (PSIRF)	National patient safety team and regional teams, supported by HSIB	Establish PSIRF national implementation group in Q2 2019/20
		Develop investigation training supplier procurement framework by Q3 2019/20
		Develop resources for boards to support implementation, including incorporating relevant content into existing board development programmes by Q4 2019/20

			Regional team oversight roles and responsibilities aligned with the PSIRF by Q2 2020/21
			Work with early adopters across several local systems to gain insight into how best to implement the PSIRF
		Local systems supported by regional teams	Local systems set out in their LTP implementation plans how they will implement the new PSIRF. Full implementation is anticipated by July 2021, informed by early adopter experience. Initially plans should: • identify PSIRF leads in local systems by Q4 2019/20 • anticipate development of organisational-level strategic plans for patient safety investigation and review by the end of Q2 2020/21 • ensure that leaders and staff are appropriately trained in responding to patient safety incidents, including investigation, according to their roles,[100] with delivery of that training and development from end Q2 2020/21 onwards • eliminate inappropriate performance measures from all dashboards/performance frameworks by Q2 2020/21 • as part of the organisation's quality governance arrangements, monitor on an annual basis the balance of resources for investigation versus improvement and whether actions completed in response to patient safety incidents measurably and sustainably reduce risk

[100] Note this training relates to currently available training in the specific skills required to effectively respond to patient safety incidents, particularly investigation skills. Wider work under the 'Involvement' section to develop and deliver a national patient safety curriculum and training will also incorporate relevant aspects of incident response, including investigation, but local systems should not delay work to ensure their existing staff are skilled to perform the roles they are asked to while the wider curriculum work takes shape.

	Implement the medical examiner system	National patient safety team and regional teams	Recruitment of regional medical examiners and establishment of the medical examiner digital system by Q4 2019/20
		Acute trusts	Establish medical examiners offices scrutinising all deaths in acute hospitals by end Q4 2019/20
			Ensure all deaths (in-hospital and community) are scrutinised by medical examiners by end Q4 2020/21
	National clinical review and response	National patient safety team	Ongoing clinical review of and response to patient safety incident reports – including through publishing NHS Improvement Patient Safety Alerts
	Implement the National Patient Safety Alerts Committee	National patient safety team	Credentialing system and approval of alert issuers from Q2 2019/20
			Oversight of implementation of HSIB's investigation recommendations so that 100% are responded to and implemented or alternatives are in place from Q4 2019/20
		Local systems	100% compliance declared for all Patient Safety Alerts from Q2 2019/20
	Enhance the learning from litigation	NHS Resolution	Supporting the reduction in maternity incidents via the early notification scheme, CNST incentives, thematic reviews, claims scorecards
		GIRFT	Continue programme to support improvements through claims learning including will publishing the first GIRFT best practice guidance on claims learning in orthopaedic surgery, focusing on the high volume areas of hip and knee arthroplasty during 2019/20

Involvement	Patient involvement in patient safety	National patient safety team and patient safety partners	Patient safety partners framework published by Q4 2019/20
		Local systems	Local systems and regions aim to include two patient safety partners on their safety-related clinical governance committees (or equivalents) by April 2021, and elsewhere as appropriate, who will have received required training by April 2022
	Deliver a patient safety curriculum and syllabus that supports patient safety training and education for the whole NHS	NHS England and NHS Improvement and Health Education England	Evaluate current education and training packages, for inclusion or not in the national patient safety syllabus and create the first national patient safety syllabus by April 2020
			Develop plans for implementing patient safety training in all relevant training and education by April 2020
			Make training in the foundations of patient safety available to all staff by April 2021
		Local systems	Support all staff to receive training in the foundations of patient safety by April 2023
	Develop a network of patient safety specialists	National patient safety team	Initial role description available by Q3 2019/20
			Hold the inaugural patient safety specialist network meeting in Q2 2020/21
		Local systems, regional and national healthcare organisations	Identify to the national patient safety team at least one patient safety specialist per organisation by end Q4 2019/20

		Local systems	Release patient safety specialists for identified training by Q4 2021/22
		National patient safety team and HEE	Deliver training for 750 patient safety specialists by Q4 2022/23
Improvement	Enhance the impact of the National Patient Safety Improvement Programme (NPSIP)	National patient safety team, Patient Safety Collaboratives (PSCs) and regional teams	Enhance co-ordination between the 15 PSCs and NHS England and NHS Improvement's regional teams through 2019/20
	Deliver NPSIP priorities	Local systems supported by the national patient safety team and the patient safety collaboratives	Deterioration – NEWS2 adoption by all acute and ambulance trusts by Q4 2019/20
			Emergency laparotomy – 87% patients benefitting from the care bundle by Q4 2019/20
			PReCePT – 33% increase in eligible mothers to whom $MgSO_4$ is given by Q4 2019/20
			COPD discharge bundle – 50% increase in sites that use the care bundle over baseline by Q4 2019/20
			ED checklist – 50% increase in acute sites that benefit from the ED checklist or equivalent over baseline by Q4 2019/20
	Deliver the Maternity and Neonatal Safety Improvement Programme (MNSIP)	Local learning systems and local maternity systems supported by the MNSIP team	Nationally reduce the rate of stillbirths, neonatal deaths and asphyxial brain injury by 50% by 2025
	Deliver the Medication Safety Improvement Programme (MSIP)	MSIP national programme team, PSCs and local systems	The programme will reduce avoidable, medication-related harm in the NHS, focusing on high risk drugs, situations and vulnerable patients. Details to be confirmed

	Deliver the Mental Health Safety Improvement Programme (MHSIP)	Local systems supported by the MHSIP national programme team	MHSIP engagement programme – local systems should develop safety improvement plans post their engagement meeting (unless agreed not needed)
			National programme to deliver 33% reduction in restrictive practice in pilot wards by Q4 2019/20
			All mental health inpatient providers nominate a ward to participate in the improving sexual safety collaborative. Data collection to be confirmed
	Address safety issues that affect older people	NHS England and NHS Improvement supporting local systems	Continue to facilitate the Falls Collaborative Programme and improve falls prevention in hospital through the 2019/20 national CQUIN scheme
			Spread uptake of the electronic frailty index and routine frailty identification and assessment
			Link data on medications and falls
			Continue the Stop the Pressure Programme
			Spread Enhanced Health in Care Homes
	Address safety issues that affect people with learning disabilities	NHS England and NHS Improvement supporting local systems	Accelerate LeDeR and align with the medical examiner system
			Expand STOMP and STAMP
			Further spread use of care and treatment reviews
			All NHS-commissioned care to meet the learning disability improvement standards by 2023/24
	Deliver the UK National Action Plan for AMR	Local systems, supported by national and regional teams	Local systems should develop plans to: • halve healthcare associated Gram-negative blood stream infections by 2024 (25% by 2021) • reduce community antibiotic use by 25% (from 2013/14 baseline) by 2024

			- reduce use of 'reserve' and 'watch' antibiotics by 10% by 2024 from 2017 baseline - improve the management of lower UTI in older people in all care settings by Q4 2019/20 (supported by CQUIN) - improve antibiotic prophylaxis for colorectal surgery by Q4 2019/20 (supported by CQUIN)
	Support patient safety research and innovation	PSTRCs, AHSNs, other researchers, in conjunction with NIHR, DHSC and the national patient safety team	Develop new technical solutions to Never Events Support the safety innovation pipeline more widely

List of contributors

This strategy was written by a large number of people who gave their time and energy to support its development. Foremost are the 527 people and organisations who directly responded to the consultation exercise and the more than 160 people who attended workshops, meetings and online conversations. In addition, over 60 people wrote and reviewed the document itself. We have listed contributors under the area they contributed to most, although many people worked across several areas.

Overall content
- Every member of the national patient safety team
- James Nicholls, Patient Safety Communications Manager, NHS England and NHS Improvement
- Lucy Gardner, Editor, NHS England and NHS Improvement
- Dr Matt Fogarty, Deputy Director of Patient Safety (Policy and Strategy), NHS England and NHS Improvement
- Members of the National Quality Board

Patient safety culture
- Sarah Tilford, Improvement Manager – Patient Safety Programmes, NHS England and NHS Improvement
- Dr Sonya Wallbank, National Clinical Advisor to the Culture, Leadership and Engagement Project

Patient safety system
- Dr Amir Mehrkar, Chief Medical Officer, NHS Digital
- Jennifer Benjamin, Deputy Director – Quality, Patient Safety & Investigations, DHSC
- Celia Ingham Clark, Medical Director for Professional Leadership and Clinical Effectiveness NHS England and NHS Improvement
- Victoria Howes, Head of Strategy, CQC
- William Vineall, Director – Acute Care & Quality Policy, DHSC

Primary care
- Dr Bakula Patel, Clinical Associate Professor in Primary Care Education, University of Nottingham
- Dr David Geddes, Director of Primary Care Commissioning, NHS England and NHS Improvement
- Dr Lucia Magee, National Medical Director's Clinical Fellow, NHS England and NHS Improvement
- Dr Nikita Kanani, Medical Director of Primary Care, NHS England and NHS Improvement
- Dr Raj Patel, Deputy National Medical Director for Primary Care, NHS England and NHS Improvement
- Prof Tony Avery, Professor of Primary Health Care, University of Nottingham

Measurement
- Kate Cheema, Head of the Patient Safety Measurement Unit, South Central and West Commissioning Support Unit
- Dr Sarah Scobie, Deputy Director of Research, the Nuffield Trust

Replacing the NRLS
- Lucie Musset, Patient Safety Incident Management System Product Manager, NHS England and NHS Improvement

PSIRF
- Donna Forsyth, Head of Investigation, NHS England and NHS Improvement
- Lauren Mosley, Head of Patient Safety Implementation, NHS England and NHS Improvement

HSIB
- Keith Conradi, Chief Investigator, Healthcare Services Investigation Branch

Medical examiners
- Dr Alan Fletcher, National Medical Examiner, NHS England and NHS Improvement
- Judith Hendley, Head of Patient Safety Policy, NHS England and NHS Improvement
- Nick Day, Medical Examiner System Policy and Programme Lead, NHS England and NHS Improvement

National clinical review and response
- Graeme Kirkpatrick, Head of Patient Safety (Advice & Guidance), NHS England and NHS Improvement
- Frances Wood, Head of Clinical Review and Response, NHS England and NHS Improvement

The National Patient Safety Alerts Committee
- Dr Frances Healey, Deputy Director of Patient Safety (Insight), NHS England and NHS Improvement

Clinical negligence and litigation
- Anna Manning, Policy Development Lead, NHS Resolution
- Dr Denise Chaffer, Director of Safety and Learning, NHS Resolution
- Helen Vernon, Chief Executive, NHS Resolution
- Laura Yearsley, Deputy Director of Policy and Strategy, NHS Resolution

GIRFT
- Miss Cherri Ho, National Medical Director's Clinical Fellow, GIRFT
- Mr John Machin, GIRFT Clinical Lead for Litigation
- Professor Tim Briggs, Chair of GIRFT and National Director of Clinical Improvement for the NHS

Patient involvement
- Douglas Findlay, Patient and Public Voice Partner
- Joanne Hughes, Patient and Public Voice Partner
- Jono Broad, Patient and Public Voice Partner
- Khudeja Amer-Sharif, Patient and Public Voice Partner
- Priscilla McGuire, Patient and Public Voice Partner
- Simon Rose, Patient and Public Voice Partner

Education and training
- Marie Moore, Quality Transformation and Patient Safety Lead (National), HEE
- Peter Rolland, Patient Safety Programme Manager, HEE
- Prof Wendy Reid, Executive Director of Education and Quality and National Medical Director at Health Education England

Patient safety specialists
- Joan Russell, Head of Patient Safety Policy and Partnerships, NHS England and NHS Improvement
- Wayne Robson, Head of Patient Safety Cross System Development, NHS England and NHS Improvement

Safety II
- Dr Suzette Woodward, Director of the Sign up to Safety Campaign

Independent sector
- David Hare, Chief Executive of the Independent Healthcare Providers Network
- Disa Young, Assistant Director of Regulatory Affairs and Engagement, Independent Healthcare Providers Network

NPSIP
- Natasha Swinscoe, Chief Executive of the West of England Academic Health Science Network and Patient Safety Collaboratives lead
- Phil Duncan, Head of Patient Safety Programmes, NHS England and NHS Improvement

MNSIP
- Dr Tony Kelly, national clinical lead for the Maternity and Neonatal Safety Improvement Programme

MSIP
- Deborah Williams, MSIP Programme Lead, NHS England and NHS Improvement
- Richard Cattell, Deputy Chief Pharmaceutical Officer

MHSIP
- Dr Helen Smith, National Clinical Director of the Mental Health Safety Improvement Programme
- Dr Amar Shah, Chief Quality Officer (East London NHS FT) and National Improvement lead for the MHSIP
- Tom Ayres, Senior Associate Director, National Collaborating Centre for Mental Health (NCCMH), Royal College of Psychiatrists

Older people
- Jennie Hall, Programme Director/ Strategic Nursing Adviser, NHS England and NHS Improvement
- Prof Martin Vernon, National Clinical Director for Older People

Learning disabilities
- Dr Jean O'Hara, National Clinical Director for Learning Disabilities

AMR and HCAI
- Elizabeth Beech, AMR programme lead, NHS England and NHS Improvement
- Helen McAleavy, Private Secretary to the Chief Medical Officer
- Linda Dempster, Head of Infection Control, NHS England and NHS Improvement
- Dr Zain Chaudhry, National Medical Director's Clinical Fellow, NHS England and NHS Improvement

Research and innovation
- Dr Kelsey Flott, Centre Manager, Imperial College PSTRC

Delivering the strategy
- Dr David Levy, Regional Medical Director North West, NHS England and NHS Improvement
- Martin Machray, Clinical Quality Director, NHS England and NHS Improvement, London Region
- Vicky Aldred, London Lead for Patient Safety / Head of Quality, North Central and North East London, NHS England and NHS Improvement

Appendix 1: Benefits estimate

We conservatively estimate work to improve patient safety in the NHS can save up to 1,000 lives and £100 million in care costs annually from 2023/24. In addition, the potential exists to reduce claims provision by around £750 million per year by 2025. This is based on the current levels of harm we know occur and reasonable assumptions on how far we can improve, particularly in relation to centrally administered initiatives because these are easier to estimate the impact of.

These estimates reflect the benefits side of implementing the strategy. Realising these benefits requires activity and resources. Significant activity already takes place in relation to patient safety improvement in the NHS and for the purposes of this assessment we have assumed implementing the strategy involves enhancing the focus of these efforts rather than maintaining existing activity and adding new activity.

In making these estimates we have been mindful that previous international estimates made in journals have been challenged for confusing errors and adverse events, and assuming any error affecting a patient who died could be considered to be an error causing death.[101] We have sought to avoid these incorrect assumptions.

Estimating current impact of harm in the NHS

We have used systematic studies of deaths or serious harm caused by problems in healthcare as the core of our estimates, combining with other sources to extend the estimate to other levels of significant harm as follows. We estimate:

- The number of deaths resulting from patient safety incidents per year at 11,000 based on Hogan et al's studies[102] (inpatient only) and adjusting up by

---

[101] Shojania KG, Dixon-Woods M (2017) Estimating deaths due to medical error: the ongoing controversy and why it matters. BMJ Qual Saf 26: 423-8. https://qualitysafety.bmj.com/content/26/5/423.short

[102] Hogan H, Zipfel R, Neuburger J, Hutchings A, Darzi A, Black N (2015) Avoidability of hospital deaths and association with hospital-wide mortality ratios: retrospective case record review and regression analysis. *BMJ* 351: h3239. https://www.bmj.com/content/351/bmj.h3239; Hogan H, Healey F, Neale G, Thomson R, Vincent C, Black N (2012) Preventable deaths due to problems in care in English acute hospitals: a retrospective case record review study. *BMJ Qual Saf* 21(9) https://qualitysafety.bmj.com/content/21/9/737?int_source=trendmd&int_medium=cpc&int_campaign=usage-042019

24% for emergency department, day surgery and outpatient deaths. This adjustment is based on NRLS data on incidents reported to have resulted in death and severe harm that shows 76% of incidents from acute care settings involve inpatients and 24% involve emergency department and other patients.

- A 1:3:10 ratio for the number of patient safety incidents thought to have resulted in death, disability and additional treatment required respectively, based on case record review studies[103,104] and the NRLS.[105]

- There are 33,000 patient safety-related disabilities and 110,000 patient safety-related treatment episodes each year based on the figure of 11,000 deaths and the 1:3:10 ratio.

- The cost of a patient death at £1,000 based on Hogan et al's research evidence for the number of patients who have an extended stay after the problem in healthcare and before their death, and the NHS reference cost of cerebral vascular accident with a Glasgow coma score of 0 to 4 (fatal stroke).

- The cost of patient safety-related disability at £24,000 using disability after hip fracture as a proxy.

- The cost of additional patient safety-related treatment episodes at the level of extra days in hospital, admissions, etc at £1,000 based on four additional bed days or fewer than two ITU days.

- The volume of significant harm in primary care at 20,000 incidents, based on University of Nottingham-led research awaiting publication,[106] and the cost of a single significant harm episode in primary care at £5,000, based on a generic estimate of additional costs such as a late cancer detection and the reference cost of gastrointestinal haemorrhage related to medication management problems.

For mental health services, community nursing and allied health professional services in the community, community pharmacy and prison healthcare we do not

---

[103] Vincent C, Neale G, Woloshynowych M (2001) Adverse events in British hospitals: preliminary retrospective record review. *BMJ* 322 :517 https://www.bmj.com/content/322/7285/517
[104] Sari AB-A, Sheldon TA, Cracknell A et al (2007) Extent, nature and consequences of adverse events: results of a retrospective casenote review in a large NHS hospital. *Qual Safety Health Care* 16(6): 434-9.
[105] https://improvement.nhs.uk/resources/national-quarterly-data-patient-safety-incident-reports/
[106] Patel B, Avery T (2019), personal communication and
https://drive.google.com/file/d/1oGpA35BYEJe1ngf3k_KstqN120gNoBwI/edit

have systematic studies of deaths or serious harm due to problems in healthcare to use as the basis for estimates and have not included them.

While incidents causing low harm will still have some cost in staff time, we have no clear basis for estimating these costs and have not included them.

The total burden of harm can therefore be conservatively expressed as a failure to save 11,000 lives and £1,000 million in additional treatment costs each year.

Estimating the benefits of the strategy

Estimating the direct benefits of the NHS Patient Safety Strategy is extremely challenging. A reasonable assumption is that all the initiatives in the strategy – helping generate and share greater insight into patient safety, increasing people's involvement in safety improvement and delivering effective improvement initiatives – will have a positive impact on safety. For some of the initiatives, such as those relating to training and education, the link between the work and the outcomes in question is indirect, making quantification of benefit even more challenging.

We have therefore assessed the reasonable impact in terms of lives saved and costs avoided for a selection of the strategy initiatives only. As our estimates are deliberately conservative, the overall impact of the strategy can be assumed to be greater than that indicated. While there is a small possibility of double-counting in relation to some of the costs described above and the benefits described below (eg reducing polypharmacy would improve medication safety and have a beneficial impact on falls prevention), given the assessment is limited to a defined range of initiatives that will have little overlap, and uses conservative assumptions, we have not sought to adjust for this.

Incident review and response benefits

The main national output of the work to collect and analyse patient safety incident reports is the production of Patient Safety Alerts. The alerts issued by NHS Improvement[107] in the past 12 months related to 158 reported deaths. We assume there is under-recognition/under-reporting to the NRLS and that the actual harm is at least double what is recorded. This assumption is based on the Hogan et al studies' estimate of 11,000 deaths due to problems in healthcare of adult acute hospital

---

[107] https://improvement.nhs.uk/resources/patient-safety-alerts/

inpatients referenced above and incidents reported to the NRLS with a degree of harm of death.[108] This means the alerts related to at least 320 actual deaths.

We assume most risk reduction does not 'engineer out' (ie eliminate) risks given this is not how most actions specified in alerts work. In reality this will vary from alert to alert, but we believe an average halving of risk if alert actions were fully implemented is a reasonable assumption. We also assume implementation is only 50% effective in each provider. This is based on evidence from the CQC report on alert implementation[109] showing that organisations can struggle to implement alerts uniformly. These assumptions give us an estimate of 80 lives and £80,000 associated costs saved by alerts per year. Using the 1:3:10 ratio (see above) that means 240 disabilities are averted, £5.76 million in disability costs are avoided and 800 extra stays/operations/admissions are averted, meaning £0.8 million in costs are avoided.

Review and response reports[110] identify 30 issues managed per year on top of those addressed by alerts. If we assume that actions taken for each of these 30 issues mean three fewer significant extra stays/operations/admissions occur that would have cost £1,000 each, this saves £90,000. This gives a conservative estimate of annual financial saving from current review and response work of £6.73 million.

The impact from outputs of other clinical/alert issuing users of NRLS data[111] other than the national patient safety team is harder to estimate. However, if we assume the number of incidents they review and respond to is at least double that by the national patient safety team's internal review and that while the outputs are less directive they are more targeted, we consider it reasonable to assume these have an impact at least equal to that of the national patient safety team's internal work. Therefore, the overall total benefit of national insight work is £13.5 million treatment costs avoided and 160 lives saved.

Assuming a doubling of the current effectiveness of this work due to improvement in the identification of issues via the new incident reporting system and improvements in the response to alerts and associated advice and guidance via NaPSAC, insight work could save another £13.5 million and 160 lives.

---

[108] https://improvement.nhs.uk/resources/national-quarterly-data-patient-safety-incident-reports/
[109] https://www.cqc.org.uk/news/releases/cqc-calls-change-safety-culture-across-nhs-reduce-avoidable-harm-0
[110] https://improvement.nhs.uk/resources/patient-safety-review-and-response-reports/
[111] See p26 of https://improvement.nhs.uk/resources/patient-safety-review-and-response-april-september-2018/

Benefits of work to create a patient safety syllabus and patient safety specialists

We assume that the improved skills and knowledge about patient safety arising from a new syllabus and training, together with the creation of a network of patient safety specialists, will improve safety by at least 2%. This seems reasonable given the proven improvement that training can have.[112,113] Using our earlier estimate of the costs of harm, this translates as 200 lives and £20 million saved.

Benefits of future improvement programmes

The benefits from improvement programmes depend on the specific initiatives undertaken, and therefore rather than relying on the broad research encompassing all types of harm used above, evidence specific to the initiatives is the best basis for estimates. The potential level of possible improvement can be estimated using the approach in this strategy's 'Measurement' section, including the extent of previous initiatives and potential for further improvement.

Preventing avoidable deterioration is an existing workstream. Based on Hogan et al's studies[114] and NRLS data, avoidable deterioration represents an estimated 10% of overall harm. This means approximately 1,000 lives are lost due to problems in relation to avoidable deterioration and there are additional treatment and disability-related costs of £100 million. Focused improvement work that prevents 20% of this harm could save £20 million and 200 lives.

The evidence base is wider for the costs of falls, which are estimated to be around £2 billion[115] across England. Most falls are not preventable but given research studies delivered reductions of around 20%,[116] quality improvement initiatives should be able to prevent at least 10% overall (saving £200 million). Increasing the efficacy of current prevention by 10% means we will could save a further £20 million.

---

[112] Ahmed M, Arora S, Tiew S, Hayden J, Sevdalis N, Vincent C, Baker P (2014) Buiding a safer foundation: the Lessons Learnt patient safety training programme. *BMJ Qual Saf* 23(1): 78-86.
[113] https://www.epiffany.net/
[114] Hogan H, Zipfel R, Neuburger J, Hutchings A, Darzi A, Black N (2015) Avoidability of hospital deaths and association with hospital-wide mortality ratios: retrospective case record review and regression analysis. *BMJ* 351: h3239. https://www.bmj.com/content/351/bmj.h3239; Hogan H, Healey F, Neale G, Thomson R, Vincent C, Black N (2012) Preventable deaths due to problems in care in English acute hospitals: a retrospective case record review study. *BMJ Qual Saf* 21(9) https://qualitysafety.bmj.com/content/21/9/737?int_source=trendmd&int_medium=cpc&int_campaign=usage-042019
[115] https://improvement.nhs.uk/documents/1473/Falls_summary_July2017.pdf
[116] https://bjmt.cochrane.org/our-evidence and https://www.cochranelibrary.com/cdsr/doi/10.1002/1465158.CD012424.pub2/full

Recent research[117] shows that avoidable adverse drug reactions cause 712 deaths and contribute to a further 1,708 deaths, with the cost of definitely avoidable adverse drug reactions being £98.5 million. If we assume the Medicines Safety Improvement Programme could reduce harm by 20% to 50%, 142 to 356 more lives would be saved and the likelihood of death reduced for a further 342 to 854 people. If among this latter category we assume a reduction in incidents that contribute to deaths actually prevents 20% of these deaths, the programme could save an extra 68 to 171 lives. In total 210 to 527 lives could be saved. The mid-point here is 368. The cost saved could range from £20 million to £50 million, with £25 million the mid-point.

Within the maternity and neonatal area, the national ambition is to reduce the rate of stillbirths, neonatal deaths and asphyxial brain injury by 50% by 2025. Clinical negligence claims related to neonatal brain damage/cerebral palsy that settled as a periodic payment order (PPO) in 2018/19 required a provision of around £1.5 billion, with an average provision of £18 million. If halving the number of neonatal brain damage incidents, in line with the national maternity safety ambition, were to reduce the number of PPO claims by the same amount, then this would reduce the provision by around £750 million for just one year of avoided incidents (based on current prices). This is equivalent to 1.1% of the current overall CNST provision and the impact of this effect on annual cash expenditure will take a number of years to be fully realised.

Total benefit

Totalling the benefits in terms of lives saved and treatment costs avoided from across improved incident reporting and response (160 lives and £13.5 million), training, education and creating specialists (at least 200 lives and £20 million), and further improvement programmes (568 lives and £65 million) gives a total estimated benefit of 928 lives and £98.5 million treatment costs saved. These figures have been rounded to 1,000 lives and £100 million treatment costs respectively in the 'Summary' and 'Introduction' sections of this strategy. In addition, the potential exists to reduce the claims provision by £750 million per year by 2025 (based on current prices).

---

[117] https://www.eepru.org.uk/wp-content/uploads/2018/02/eepru-report-medication-error-feb-2018.pdf

Contact us:

NHS Improvement   **NHS England**

0300 123 2257
enquiries@improvement.nhs.uk
improvement.nhs.uk

@NHSImprovement

This publication can be made available in a number of formats on request.