



Improving patient safety in the UK Learning from adverse events

Dr William Lea

Clinical Fellow in Patient Safety

York Teaching Hospital NHS Foundation Trust / University of Leeds

United Kingdom



THE NEW
**NATIONAL
HEALTH
SERVICE**

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**Your new National Health Service begins on
5th July. What is it? How do you get it?**

It will provide you with all medical, dental, and nursing care. Everyone—rich or poor, man, woman or child—can use it or any part of it. There are no charges, except for a few special items. There are no insurance qualifications. But it is not a “charity”. You are all paying for it, mainly as taxpayers, and it will relieve your money worries in time of illness.

70
YEARS
OF THE NHS
1948 - 2018

1.7 million staff
over 1 million patients
every 36 hours.¹

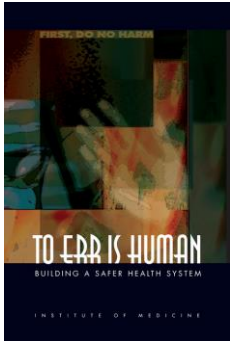
¹ Department of Health, *Chief Executive's report to the NHS: December 2005*

² NHS workforce statistics – January 2017, Provisional statistics, National Health Service Pay Review Body 30th report 2017



Adverse event

‘An unintended injury caused by medical management rather than by the disease process and which is sufficiently serious to lead to prolongation of hospitalisation or to temporary or permanent impairment or disability to the patient at time of discharge or both’¹.



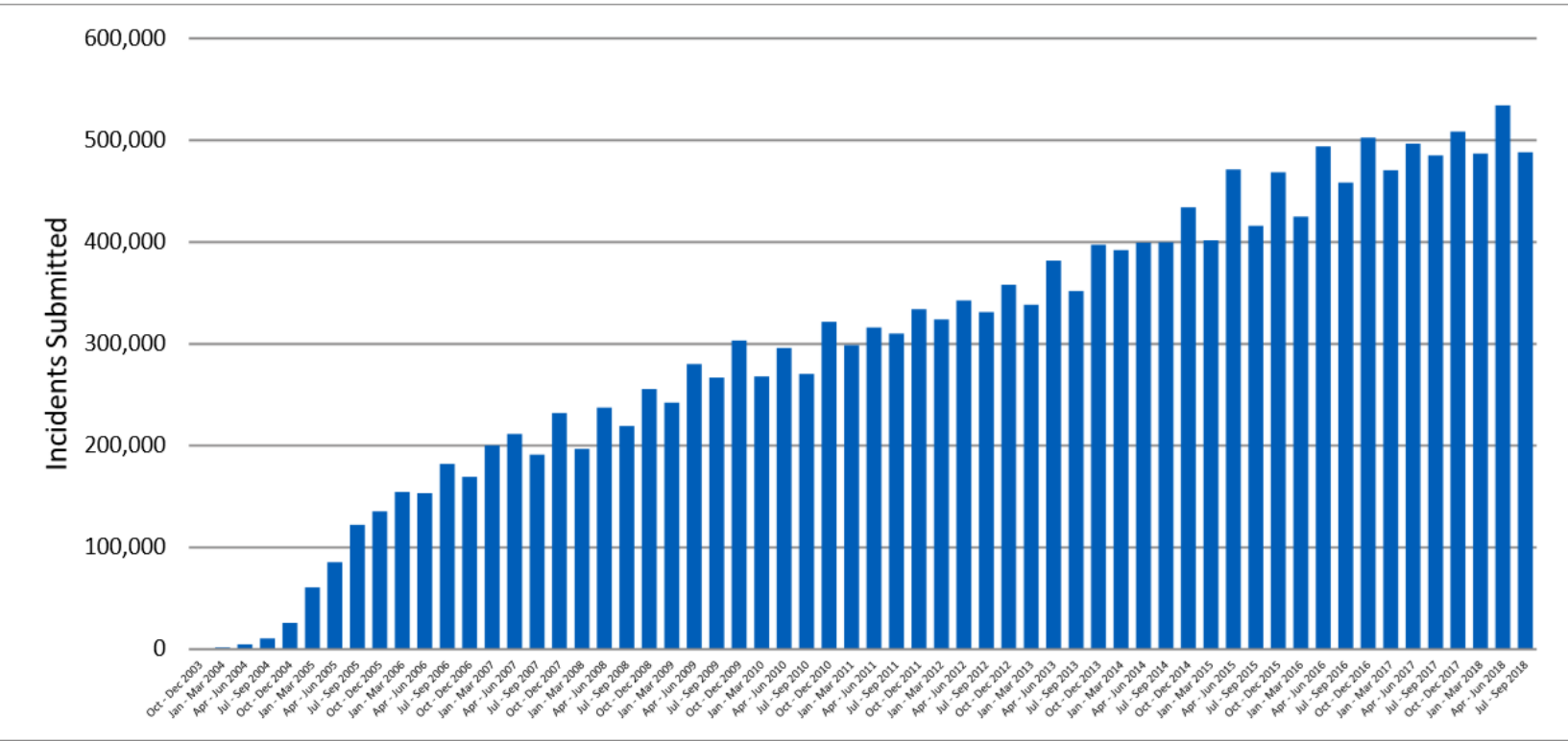
2000



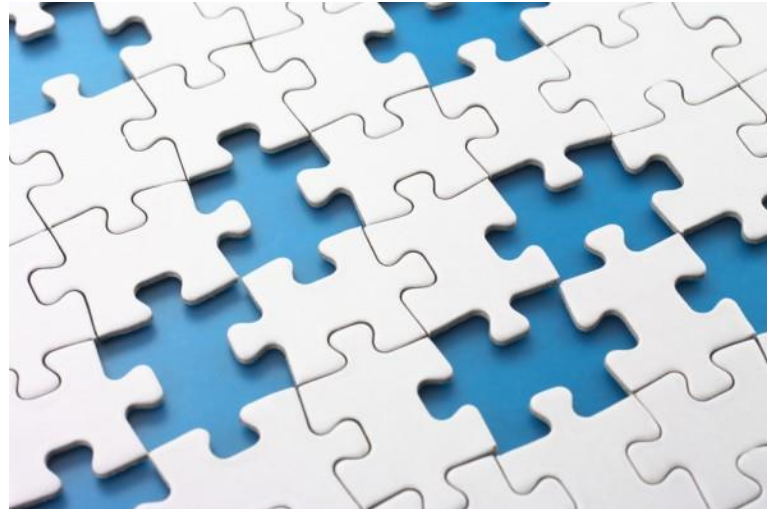
2001

**National Reporting
& Learning System**

2003



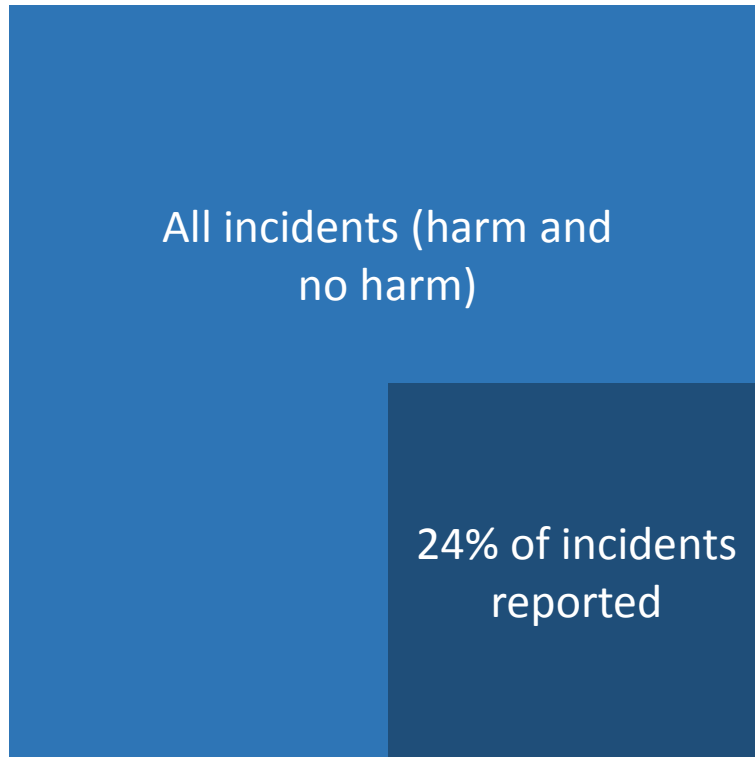
Number of incidents reported to the NRLS, October to December 2003 up to July to September 2018

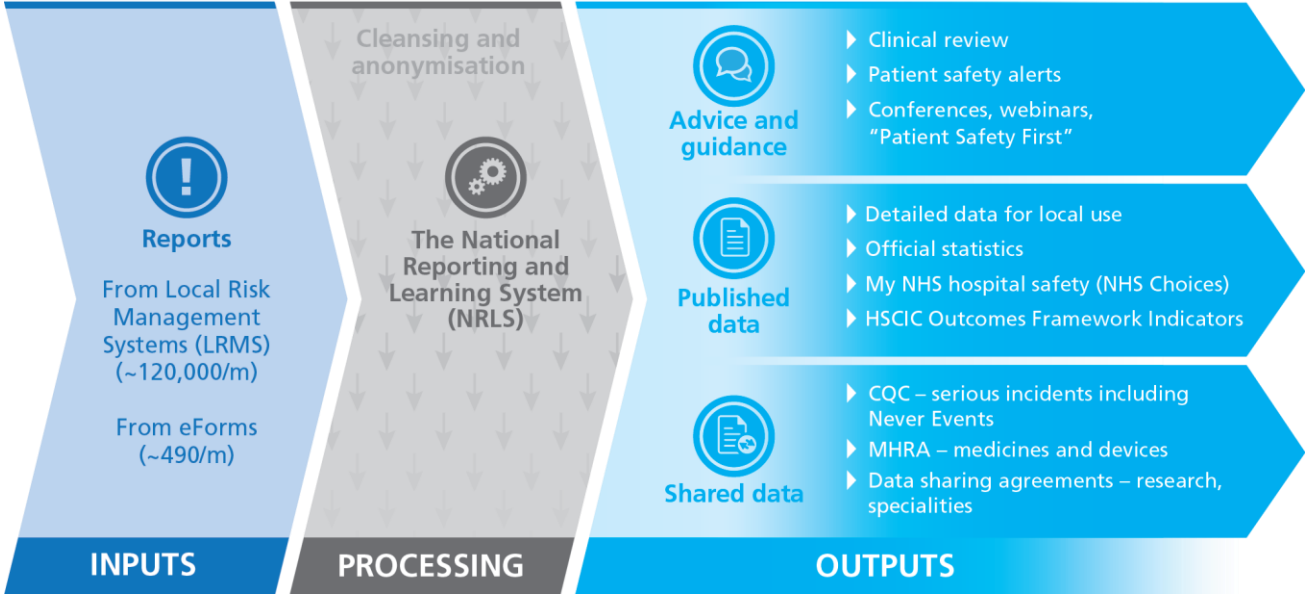


Reporting...the problems



Routine incident reporting systems may significantly under-report patient safety incidents, particularly those resulting in harm¹





Classification: Official

NHS Improvement

Patient Safety Alert

Risk of harm from inappropriate placement of pulse oximeter probes
18 December 2018

Alert reference number: [NHSPSAW/2018009](#)

Warning alert

Measurement of oxygen saturation, using a pulse oximeter probe, is routinely undertaken as part of patients' vital signs during diagnosis and ongoing monitoring. Oxygen saturation readings are a key component of the National Early Warning Score (NEWS2).
Oximeter probes can be single or multiple use and are designed to attach to specific parts of the body. Adult oximeter probes can be attached to either a finger or an ear, but are not interchangeable between these sites, whilst probes for babies and children need to be selected according to the patients' weight.
If an oximeter probe intended for the finger is attached to the ear (or vice versa), or a probe intended for an adult is attached to a baby or a child (or vice versa), it can produce a reading up to 50% lower or 30% higher than the real value. The clinical implication of an inaccurately high reading, especially as part of NEWS2, is that staff may be falsely reassured about a patient's condition, when in reality the patient is deteriorating, or may make an inappropriate intervention when in fact a patient is stable or improving.
The national patient safety team was made aware that this issue may be under-recognised. To gain further information, we carried out a survey of clinical staff and observed clinical practice. Key issues identified were:

- a substantial proportion of staff do not know that finger probes can give misleading results if attached to ears
- a quarter said they do not have access to probes specifically for the ear, even though in almost all clinical settings some patients will need these
- once probes are removed from their packaging there is no easily visible prompt to remind the user where to attach the probe
- staff may not be aware of other factors that can affect the accuracy of the reading

Although no reports were found in the National Reporting and Learning System (NRLS) relating to this issue, the scale of these gaps in knowledge and equipment suggests the potential for severe patient harm is high.
The local actions required by this alert will help reduce the risk of incorrect probe selection and placement. To reinforce and embed these local changes, NHS Improvement and the Medicines and Healthcare products Regulatory Agency (MHRA) are asking manufacturers to review device labelling and provide prompts for correct attachments. NHS Improvement have also asked the Clinical and Products Assurance (CPA) arm of NHS Supply Chain (HSCIC) to review the oximeter probe descriptions in its catalogue.

Actions

Who: All organisations providing NHS funded-care where oxygen saturation probes are used as part of routine or emergency monitoring of patients

When: To commence immediately and actions completed by 18 June 2019

Identify a clinical leader to bring together people with responsibilities for medical device training and education, clinical skills assessment, NEWS2 implementation and procurement of pulse oximeters.

Develop an action plan to reduce the risk of inappropriate placement of pulse oximetry probes. This should:

- arrange for ongoing access to adult finger and ear probes in all clinical areas where oximetry is used (including for the range required for babies and children where appropriate)
- provide point-of-use reminders on why it is vital to use the correct probe for fingers and for ears, and for babies and children
- provide point-of-use reminders on other factors that may interfere with the accuracy of the reading

Once your organisation's action plan for managing these risks has been agreed, communicate the key messages in this alert and the plan to relevant clinical staff, clinical education/training staff, and patients or their carers who self-monitor oxygen saturation levels.

Patient Safety Improvement: [nhs.uk/resources/patient-safety-alerts](#) See page two for technical notes, stakeholder engagement and advice on who this alert should be directed to.
Patient Safety Improvement: [nhs.uk/resources/patient-safety-alerts](#) [nhs.uk](#)

NHS Improvement

ACT Academy

Online library of Quality, Service Improvement and Redesign tools

Root cause analysis using five whys

collaboration trust respect innovation courage compassion

NHS England

Serious Incident Framework

Supporting learning to prevent recurrence

SYSTEMS ANALYSIS OF CLINICAL INCIDENTS THE LONDON PROTOCOL

Sub-Topic: Adam A Chadd Visiter
Clinical Safety Research Unit
Regional Cyber Leads
Department of Digital, Cyber and Technology
100 White Lion Road, London
SE16 2LW
London
UK
Email: adam@imperial.ac.uk

“Key measures of health system performance have frozen for decades – 60% of care is based on evidence or guidelines; the system wastes about 30% of all health expenditure; and some 10% of patients experience an adverse event.”¹

- The unhealthy quest for ‘the’ root cause
- Questionable quality of investigations
- Political hijack
- Poorly designed or implemented recommendations
- Poorly functioning feedback loops
- Disaggregated analysis focused on single organisations and incidents
- Confusion about blame
- The problem of many hands



- Lack of rationalisation of which incidents to fully investigate.
- (12%) clear evidence that the patient or their family had been involved in the investigation.
- (39%) evidence of interviews with members of staff who were involved in, or who had a perspective on the incident.
- (8%) showed evidence of a clearly structured methodology that identified:
 - the key issues to be explored and analysed
 - the contributory factors and underlying system issues
 - the key causal factors that led to the incident.



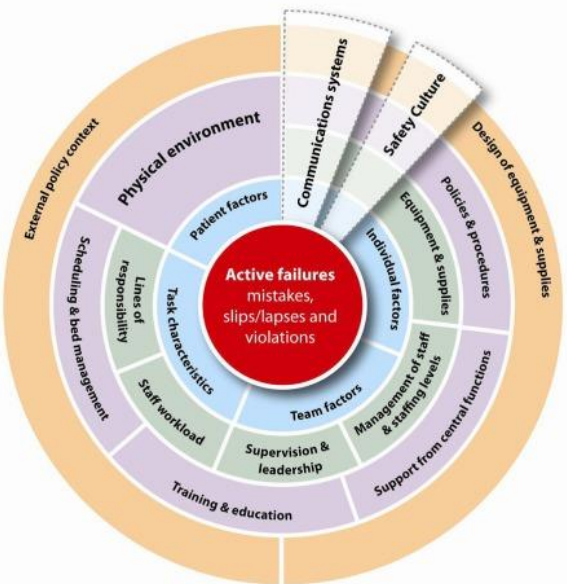
What next?

- Lots to do.....a few examples:
- National
 - New national patient safety strategy
 - Development of the Patient Safety Incident Management System (DPSIMS)
 - Healthcare Safety Investigation Branch
- Local
 - New investigation framework
 - Patient safety education
 - Patient safety experts

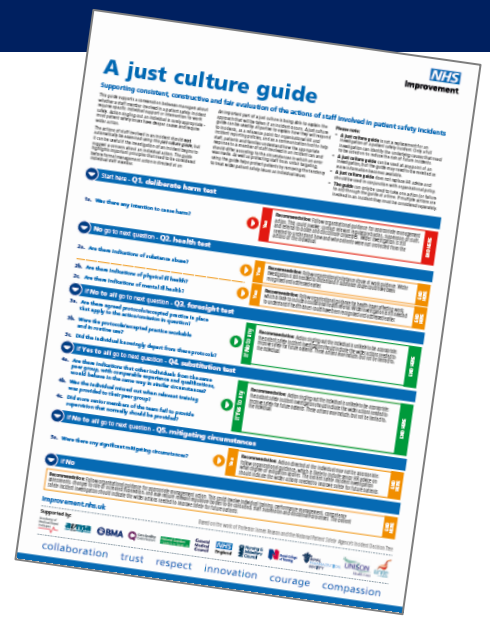


What next?.....Integrating safety sciences

The Yorkshire Contributory Factors Framework



- Active failures
- Situational Factors
- Local Working Conditions
- Latent/Organisational Factors
- Latent/External Factors



Lawton R, McEachan RRC, Giles SJ, Sirriyeh R, Watt IS, Wright J (2012) Development of an evidence-based framework of factors contributing to patient safety incidents in hospital settings: a systematic review. BMJ Qual Saf 2012.

vă mulțumesc

Thank you

Dr William Lea, *Clinical Fellow in Patient Safety*

York Teaching Hospital NHS Foundation Trust / Hull York Medical School
School of Medicine, University of Leeds

Email: william.lea@york.nhs.uk

Twitter: [@DrWilliamLea](https://twitter.com/DrWilliamLea)

