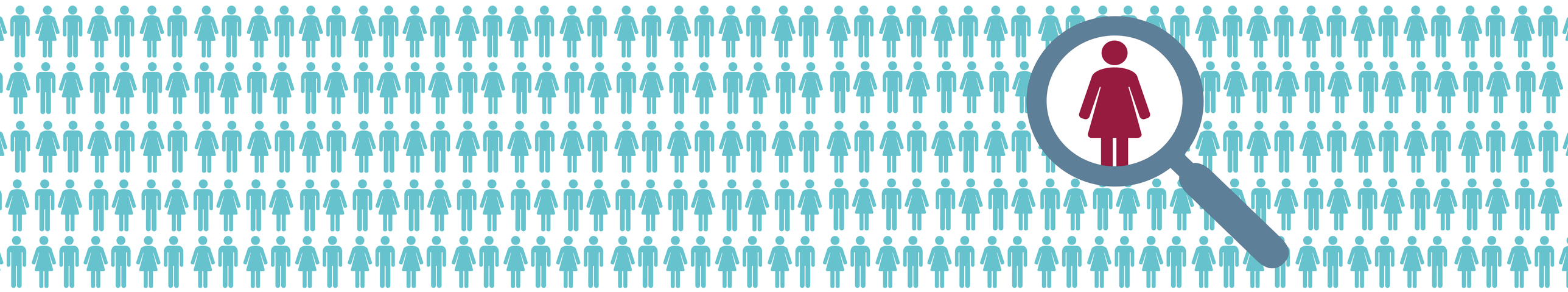
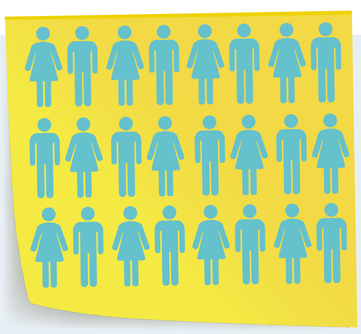


Improving safety and reliability in overcrowded urgent care systems

The Emergency Department Safety Checklist



The problem

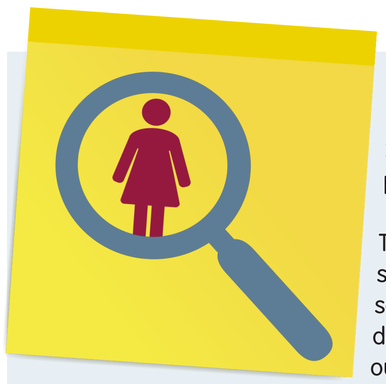
Overcrowding has an impact on the ability of staff in the emergency department (ED) to deliver safe care. Delays in recognition and treatment of severe illness are common, with associated poor outcomes. This is particularly problematic for patients suffering from stroke, heart attack and sepsis.

Staffing challenges in the ED workforce have resulted in a reliance on agency and non ED-trained staff. As staff become overwhelmed by the tasks they need to complete while faced with constant interruptions there is a risk of omissions in the delivery of basic care elements, which contributes to harm and difficulty in identifying the deteriorating patient in a crowd.

The project partners

University Hospitals Bristol (UHB) NHS Foundation Trust is a large teaching trust providing secondary and tertiary care to adults and children. The Emergency Department (ED) at UHB developed and tested the Safety Checklist to improve the safety and clinical outcomes for patients coming into ED. This was supported as a SHINE research project by **The Health Foundation**.

The team is now working with the **West of England Academic Health Science Network** (AHSN) to roll out the checklist to all EDs across the West of England, in collaboration with local partners.



The intervention

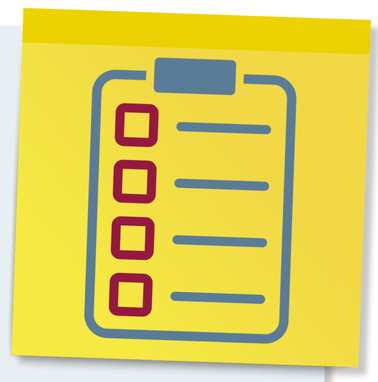
Safety checklists have been shown to improve standardisation and demonstrate improvements in patient safety and care. The team at UHB developed the Emergency Department (ED) safety checklist.

The checklist systemises the observations, tests and treatments required by patients in a time-based sequence. This makes it clear what has been done and what needs to be done next. The checklist serves as an aide memoir for busy staff. Any doctor, nurse, bank or agency staff can join the department and provide the right care. By providing this structure, the checklist results in improved outcomes for patients and a reduction in system risk.

Following a period of development and testing, including input from public and patient representatives, the ED safety checklist was introduced to UHB adult ED in November 2014.

At UHB the checklist is used for every 'major end' patient coming into the adult ED - a footfall of almost 14,000 patients every year.

The checklist

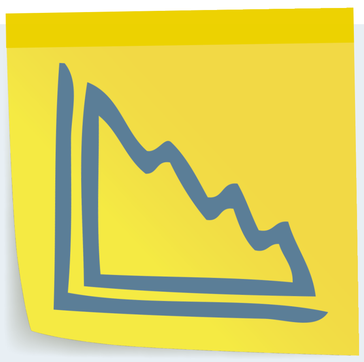


The ED safety checklist includes:

Part 1 – provision of basic safe clinical care
- Vital sign measurement
- Calculation of the National Early Warning Score (NEWS)
- Pain scoring
- Administration of drugs
- Front-loading investigations

Part 2 – value added tasks
- Referrals to drug and alcohol services, liaison psychiatry and occupational therapy
- Commencement of pathways that demonstrably improve outcomes (such as fractured neck or femur, stroke and diabetic ketoacidosis)

The checklist serves as an aide memoir for:
- Completing tasks in a timely way – omissions are immediately apparent
- Recognition and treatment of time-critical conditions
- Early detection of clinical deterioration
- Consistent, safe transfers of care
- Decreases free text writing
- Reducing administrative time
- Minimising verbal handover.

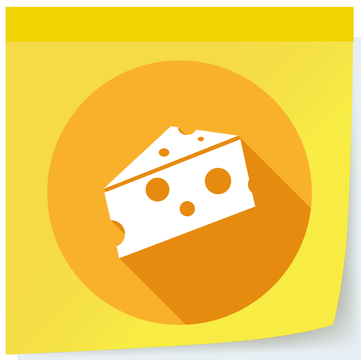


The impact

UHB's performance was analysed against similar baseline data. After the introduction of the ED safety checklist, performance against baseline increased, with a p-value of <0.0001 in most cases.

Quantitative improvements
- Improved management of time-critical conditions. UHB saw a mean increase of over 5% in CT scanning within one hour for suspected stroke.
- Earlier recognition and rescue of clinically deteriorating patients. UHB saw a mean increase of 25% in hourly observations and early warning score calculations.
- Ensuring patients are on the correct care pathways out of EDs. UHB saw an 11% increase in patients treated on the stroke pathway.

Qualitative improvements
- Reduced length of hospital stay
- Better supported staff, including those less familiar with the ED and ambulance crews
- Improved quality of handover
- Appropriate continuity of care
- Since the introduction of the ED checklist at UHB there have been no clinical incidents related to failure to recognise deteriorating patients or delay in care delivery. This can be compared with the winter prior to implementation when there were five serious incidents due to failure to recognise deterioration, three of which were in the ambulance queue.



Lessons learned: the 'Swiss cheese' effect

Staff culture needed to be considered in roll-out of the ED safety checklist. At UHB, the checklist was initially seen as over-prescriptive in tasks perceived as so fundamental that there was reluctance to accept they were not already being performed well. Providing staff with demonstrable evidence and sharing patient stories can help them understand the 'Swiss cheese effect', demonstrating the link between the cumulative effect of several omissions in basic care through to unrecognised deterioration and harm, so that they might realise improvements in their own setting.

Regional learning set events will give EDs the opportunity to share and learn from each other's experience of using the intervention. The ED safety checklist includes some mandatory fields to ensure parity of data across the region, while other fields are flexible and can be agreed locally, and can be tested through PDSA cycles.

Support from executive sponsors provides leadership, vision, peer support and enablement, delivered through the West of England Academic Health Science Network's senior leaders group and the Patient Safety Collaborative's board. These two groups will provide system stability and continuity if the local political landscape alters.

"International evidence, highlighted in the 'Keogh Review' of Urgent and Emergency Care clearly demonstrates the risks that crowded EDs pose to patient safety and outcome. This intervention is designed to directly address these challenges, and has already been shown to be effective: it is entirely consistent with national policy in emergency care."

Professor Jonathan Benger, National Clinical Director for Urgent Care, NHS England

Next steps

Due to the pressures on local urgent care systems, the West of England Academic Science Network (AHSN) is now building on the work of UHB by supporting four other trusts to implement the ED safety checklist: Weston Area Health NHS Trust, North Bristol NHS Trust, Gloucestershire Hospitals NHS Foundation Trust and Great Western Hospitals NHS Foundation Trust.

Based on learning from introducing the checklist at UHB, a generic toolkit has been designed to assist implementation at other sites. This toolkit includes:

- project plan
- educational/promotional material
- data collection tools
- role specifications
- generic dashboard.

UHB and the West of England AHSN are considering methods for wider adoption and spread of the checklist and toolkit in response to considerable national interest.

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