2024 Annual SHOT Report – Supplementary information

Chapter 7: Human Factors and Ergonomics in SHOT Error Incidents

Additional analysis not included in the main 2024 Annual SHOT Report.

Supplementary HFE Chapter: Case studies

The problem of 'corridor care' is outlined and discussed in the main Human Factors and Ergonomics (HFE) chapter. In this supplementary section, some case studies where 'corridor care' been cited as being a contributory factor in errors are described including the workarounds that are sometimes required to mitigate risks. The cases illustrate that staff can be working in an environment that is not conducive to performing critical tasks safely. For additional context, readers are encouraged to read the main HFE chapter and the Near Miss Wrong Blood in Tube (WBIT) chapter alongside these case studies.

Case study 1: Wrong blood in tube error due to emergency department (ED) overcrowding

Two blood samples were received for a patient in the ED, both grouped as O D-negative. This did not match the patient's previous four historical samples, which were all O D-positive. A WBIT incident was identified by the laboratory. The samples were rejected, and new, correctly taken and labelled samples were obtained prior to transfusion.

The review into this event identified that the two samples were labelled by two different staff members. The samples were taken while the patient was being looked after on the ED corridor due to lack of space in the main department. One nurse took the samples, and they were then handed to a second nurse to label.

The contributing factors for this case included:

- The patient was cared for on a corridor due to ED overcrowding
- There was no appropriate space for safe, distraction-free sampling and labelling
- The pressure to work quickly led to correct sampling policy not being followed
- Staff deviated from standard practice (multiple samples, labelling by another clinician).

The actions identified for improvement included:

- Corridor sampling to be avoided where possible, especially for transfusion samples
- Only one sample to be taken at a time, by the person labelling it
- Staff reminded they are not required to take two transfusion samples or label samples they didn't collect

- Working with ED clinicians, educators, and management to reinforce safe practice
- Discussions at governance meetings and with Practice Development Nurses
- Developing enhanced transfusion training (online and face-to-face)
- Planning Transfusion Link Nurse visits to the laboratory to demonstrate error detection and associated risks

Case study 2: Sample labelled with another patient's details

A blood sample was taken and labelled with incorrect patient information. The error was quickly identified and reported by an ED staff nurse, who contacted the laboratory after realising the error. The event occurred during a particularly busy period in ED. Staff were treating patients in corridors due to lack of space and no designated workstations, which contributed to the error. The timing coincided with the post-handover period when patient transfers, new admissions, and multiple ambulance arrivals created a high-pressure environment.

The contributing factors for this case included:

- There were no designated workspaces for labelling samples
- There was high patient volume and staff were caring for patients in corridors
- Shift change and handover had just occurred, transfer of patients out to ward beds was being undertaken as well as follow up of all the handovers
- There was an influx of patients waiting to be admitted
- There were four ambulance crews waiting to offload patients

The actions identified for improvement included:

- Internal awareness raised regarding the importance of accurate patient data during venepuncture
- A recommendation was made to designate specific personnel for venepuncture to prevent future occurrences

Case study 3: WBIT error in ED during capacity constraints

A blood transfusion sample was sent from the ED and detected in the laboratory as a WBIT error. The patient's historic blood group was A D-positive, but the sample tested as O D-negative. The discrepancy was confirmed as a WBIT incident by the requesting area. The blood sample was taken at the bedside from the correct patient. However, it was labelled away from the patient using incorrect patient details. The patient involved had a similar name to another patient, contributing to the confusion. At the time, the ED was experiencing high patient acuity and multiple bed escalations. The patient had been moved into a 'boarding' bed, which was not an appropriate bedspace due to capacity constraints. The staff member that made the error was also coordinating the resuscitation area, which increased their workload. Reflection and use of the SHOT WBIT investigation tool demonstrated that they had the correct skills and knowledge, but the system in place did not support safe working practices due to bed escalation and pressures.

The contributing factors for this case included:

- Electronic labelling not used, and sample labelling was not done at the patient's side
- There were bed management issues and escalation pressures led to patients being placed in inappropriate locations
- Similar patient names and lack of patient notes at the bedside further increased risk
- Organisational pressures. There were broader issues in patient flow and capacity across the Trust, affecting safe working conditions

The actions identified for improvement included:

- Implementation of an electronic sample labelling that requires scanning and printing labels at the bedside to prevent similar incidents
- Addressing organisational and systemic issues related to capacity, escalation, and patient flow to support safe clinical practices
- Reinforce policies around bedside labelling and double-checking patient identity, especially during times of operational pressure

It is important that corrective and preventive actions taken in response to such events are effective and system focused. Many of the actions in the outlined case studies sit low on the action effectiveness hierarchy, for example, reminding staff of correct procedures, while none addressed adding environmental challenges to the organisation's risk register or developing a plan to eliminate corridor care entirely. Further information on action effectiveness can be found in the main HFE chapter.