Key recommendations

Accurate patient identification is fundamental to patient safety. Organisations must review all patient identification errors and address the causes of patient misidentification with use of electronic systems, and empowerment of patients and staff.

Clinical and laboratory staff should be trained in fundamentals of transfusion, human factors, cognitive biases, investigating incidents and patient safety principles.

All healthcare organisations should incorporate the principles of both Safety-I and Safety-II approaches to improve patient care and safety. Healthcare leaders should proactively seek signals for improvement from unsafe, suboptimal as well as excellent care.

Healthcare management must recognise that safety and outcomes are multifaceted, a linear view of safety does not fully acknowledge the interdependencies of resources including their leadership, adequate staffing and knowledge. Healthcare leaders should ensure these are all in place to improve patient safety.

Combining Safety-I and Safety-II approaches can help to understand the reasons for errors and improve patient safety.

To improve patient safety, a combined approach using both Safety-I and Safety-II principles is essential.

- Respond when something happens or is categorised as an unacceptable risk
- As few things as possible go wrong
- Humans seen as liability or hazard
- Investigation purposes identify causes and contributory factors

Paediatric SHOT summary from 2019

Paediatric reports accounted for 7.2% of total cases reported to SHOT in 2019.

Paediatric FAHR most often occurred following platelet transfusions (23/38; 60.5%), the usual FAHR pattern for paediatrics.

One death was reported possibly related to transfusion-associated necrotising enterocolitis.

Errors with interpretation of test results, failure to access specialist help in managing patients and communication errors continue to be an issue.

Errors relating to transfusion volumes remain an issue, mainly relating to errors in calculation (8 cases).

The nine-step transfusion pathway

1. REQUEST
2. SAMPLE TAKING
3. SAMPLE RECEIPT
4. TESTING
5. COMPONENT SELECTION
6. COMPONENT LABELLING
7. COMPONENT COLLECTION
8. PRESCRIPTION
9. ADMINISTRATION

The A-E decision tree to facilitate decision making in transfusion

- Assess patient
- Any avoidable blood loss
- Frequent, unnecessary tests/interventions

- Blood results (all reviewed including trends – valid and reliable)
- Best treatment option
- vs transfusion
- the best treatment option? If yes, what components needed, how many, what order and any specific requirements needed?

- Consent/communication [adequate patient information—both verbal and written]
- to patients and where appropriate to families and carers
- Correctable factors to be addressed like bleeding, haematocrit deficiency

- Do not forget other measures (vitamin K, tranexamic acid, cell salvage, etc)
- Do not hesitate to question colleagues regarding decisions made and ask for rationale
- Do not forget to document in patient’s notes and in discharge summaries

- Ensure timely communications to laboratory
- need to be clear, concise and accurate
- Ensure all relevant transfusion checklists including TACO risk assessment and actions arising thereafter have been completed

- Ensure patient receives adequate post-transfusion information if transfusion given as a day case

UPTAKE areas to be covered in a robust competency assessment

- Understands procedure being assessed
- Performs task accurately
- Takes heed of limits of procedure
- Applies knowledge of scientific background and rationale for procedure
- Knows and considers risks of not following procedure
- Ensures exceptions and where to find further advice if needed.
Transfusion in the UK remains very safe with low risks of harm in relation to the number of blood components issued.

Summary data for 2019, all categories (includes RBRP and NM) n=3397

- Transfusion in the UK remains very safe with low risks of harm in relation to 2.3 million blood components issued in the UK in 2019.
- There were 17 transfusion-related deaths in 2019. Of these, 5 could have been prevented.
- The risk of death approximately 1 in 135,705 and of serious harm 1 in 17,684 components issued in the UK.
- 4249 reports submitted to SHOT in 2019.

Most wrong blood in tube cases occurred due to patient identification errors when taking the blood sample.

Key laboratory messages:
- Laboratory staff should have knowledge of the clinical requirements of transfusion to work collaboratively to deliver cohesive patient-centred care.
- All lone workers should be adequately supported through their training and competency assessment to ensure they are equipped with adequate skills and knowledge. Laboratory management have a responsibility to ensure all staff members are competent before exposing them to lone working.
- Escalation procedures for lone workers must be clear and defined, with specialist support being accessible at all times. UK Transfusion Laboratory Collaborative (Standard 3.6)
- Laboratory information management systems should be robust and used to their full functionality, preventing ABO-incompatible units being assigned to the patient record, and issued, especially in an emergency when the patient’s blood group is unknown.

Key steps in ensuring safe transfusions in Haemopoietic Stem Cell Transplant (HSCT):
- Everyone involved in patient care should be informed of patient’s transfusion requirements.
- Laptop and smartphone applications are a reliable and convenient method of access to transfusion requirements.
- Continuation of updated Bill.
- Transfusion in HSCT
- Laboratory staff should be informed and educated about new transfusion requirements.
- Laboratory staff should be competent before exposing them to lone working.
- All lone workers should be adequately supported through their training and competency assessment.
- Escalation procedures for lone workers must be clear and defined, with specialist support being accessible at all times. UK Transfusion Laboratory Collaborative (Standard 3.6)
- Laboratory information management systems should be robust and used to their full functionality, preventing ABO-incompatible units being assigned to the patient record, and issued, especially in an emergency when the patient’s blood group is unknown.