4 Key Messages and Recommendations

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Abbreviations used in this chapter

ABOi	ABO-incompatible
BMS	Biomedical scientist
BSH	British Society for Haematology
BSQR	Blood Safety and Quality Regulations
CAS	Central alerting system
GP	General practitioner
IHI	Institute for Healthcare Improvement
IT	Information technology
LIMS	Laboratory information management system
NHS	National Health Service
SOP	Standard operating procedure
TACO	Transfusion-associated circulatory overload
UK	United Kingdom
UKTLC	UK Transfusion Laboratory Collaborative
WHO	World Health Organisation

Key SHOT messages

- **Addressing transfusion errors:** Errors continue to be the source of most SHOT reports (81.3%). While transfusions are largely safe, errors can result in patient harm. Many of these are caused by poor communication and distraction. These must be investigated using human factors principles-based incident investigations and appropriate mitigating measures implemented
- **Learning from near misses:** Reporting and investigating near misses helps identify and control risks before actual harm occurs, providing valuable opportunities to improve transfusion safety. The appropriate response to a near-miss with potential for high-risk transfusion event includes: (1) reporting to haemovigilance agencies as required, (2) investigate near miss, (3) develop and implement a corrective and preventative action plan and (4) monitor effectiveness of interventions
- **Safe staffing is paramount:** Staffing challenges in both clinical and laboratory areas threaten transfusion safety. Adequate numbers of appropriately trained staff must be available to ensure safe transfusions; there should be contingency planning for staffing levels below a minimum level and for times of high workload
- **Risk assessment before transfusion:** TACO continues to be the most common cause of death and of major morbidity and may be potentially preventable. Vulnerable patients should be assessed prior to transfusion and appropriate measures instituted to reduce risk
- **Addressing transfusion delays:** Avoidable transfusion delays continue to contribute to patient deaths and measures recommended in the SHOT CAS Alert (SHOT 2022) must be implemented to address these

Blood components continue to be very safe. Morbidity and mortality associated with transfusions are often due to suboptimal practices and ill-judged transfusion decisions that need to be improved. The risk of death from transfusion in the UK is very low despite the steady increase in the number of reports submitted to SHOT year on year (see Chapter 3, Headline Data: Deaths, Major Morbidity and ABO-Incompatible Transfusions).

All staff involved in blood transfusions need to have basic knowledge of the blood components, indications for use, alternate options available, risks and benefits and possible reactions and their management.

One of the main SHOT recommendations in the 2018 Annual SHOT Report was to ensure all transfusion decisions are made after carefully assessing the risks and benefits of transfusion therapy. Clinical and laboratory staff must work collaboratively and in a co-ordinated fashion to be able to deliver individualised, holistic, patient-centred care (Narayan et al. 2019).

Use of checklists, embedding the use of electronic identification systems, incorporation of human factors and ergonomics principles in transfusion practices will help in improving decision making in transfusion. The key messages and recommendations from the previous Annual SHOT Reports remain relevant and all healthcare organisations involved in transfusion are encouraged to continue implementing these and ensuring measures have been effective.

The Safe Transfusion Checklist that is available to download from the SHOT website covers all the key aspects of the transfusion process at the bedside. The ABCDE approach to transfusions helps in the transfusion decision-making process (see 'Recommended resources').

Transfusion safety, more than just blood safety: six simple rules for safe transfusions

Transfusion is a complex multistep process involving members of several different professional groups i.e., nurses, doctors, laboratory scientists as well as the donors and recipients. Transfusion safety depends upon the coordinated linkage of all processes from collection of the blood component from blood donors to transfusion in the recipient. There are various steps in the transfusion pathway from making the decision to transfuse to administration of blood components and monitoring/management of complications (See 'Recommended resources'). This highlights the importance of safe and effective communication, timely coordination and collaboration between all teams involved in patient care both clinical and laboratory to ensure transfusion safety.

Blood transfusion has never been safer than it is today, but it is still not completely free of adverse events. Transfusions have become a lot safer over the last few decades with the advances in component preparation practices. Improvements in donor selection and screening, and advances in microbiological testing have reduced the transmission of infectious agents; however, non-infectious complications continue to be a serious risk. Non-infectious transfusion-related adverse events could happen due to a wide variety of reasons specific to a blood component, amount of transfusion, and transfusion errors. With more than 80% of submitted reports to SHOT being related to transfusion errors, it is vital to understand the systemic gaps that lead to these errors and help initiate modifications to clinical and laboratory practices to mitigate the incidence and impact of these adverse events. Figure 4.1 highlights the importance of ensuring both safety of blood components and safety in the transfusion processes for the overall transfusion safety.

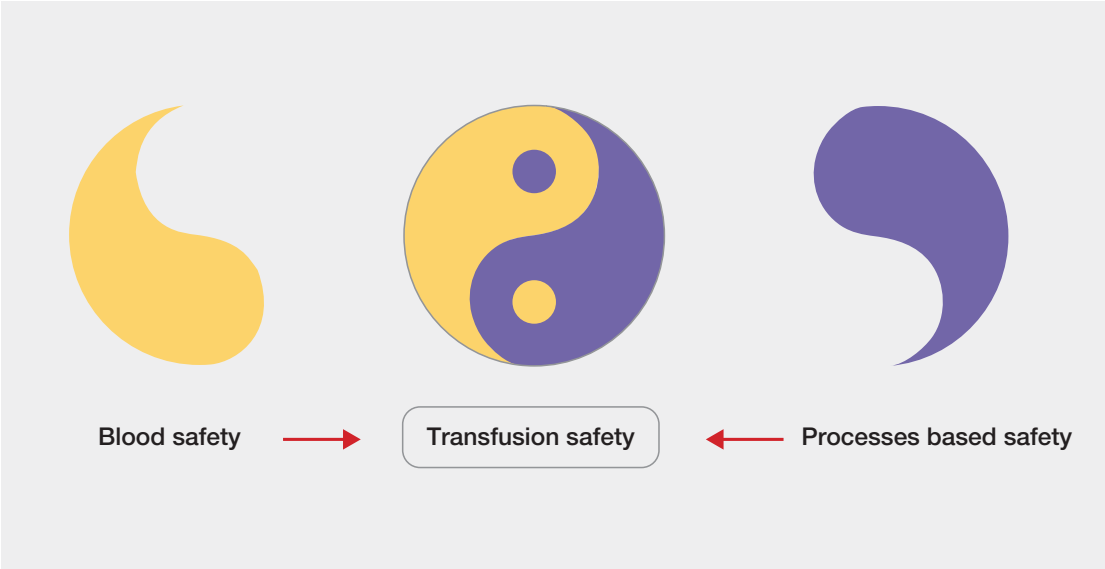


Figure 4.1: Transfusion safety

It is critical that individualised transfusion decisions are made taking into consideration available guidelines, clinical assessment, and blood results. Unnecessary transfusions should be avoided. Clear, timely and accurate communication and co-ordination between clinical and laboratory teams both at the hospital and at the Blood Service is essential to ensure safe transfusions. All team members involved in the transfusion chain play an integral role in preventing errors or early identification of transfusion complications. Therefore, proper training and regular education of interdisciplinary teams consisting of laboratory staff, physicians, nurses, and phlebotomists involved in the transfusion process is paramount to achieve safe transfusion.

The key messages and recommendations from the previous Annual SHOT Reports remain relevant and all healthcare organisations involved in transfusion are encouraged to continue implementing these and ensuring measures have been effective. Here are 'six simple rules' for safe transfusions based on the collective learning from haemovigilance reports and previous key SHOT recommendations. These are the themes emerging from submitted reports year on year reinforcing the urgent need to address gaps in these areas and improve safety.

1. **S**afety culture: A good patient safety culture that is open and just which promotes learning from all events not just when things go wrong but also from near misses and from excellence. An organisational safety culture should be one that ensures psychological safety for staff and promotes civility at work
2. **A**ppropriate transfusion decisions: Appropriate and safe transfusion decisions taken after considering benefits, risks and transfusion alternatives with clinical and laboratory staff at hospitals and Blood Services working together collaboratively and co-ordinating efforts to always ensure timely provision of blood components
3. **F**ocus on people: People-centred healthcare systems are critical for safety-partnering with patients and blood donors, co-creating systems for optimal care and having an engaged workforce committed to patient safety
4. **E**ffective communications and documentation: Effective, clear and timely communications supported by accurate documentation and safe handovers in both clinical and laboratory areas support safe transfusions
5. **T**raining that is holistic and competency-assessment of staff involved in transfusions: All staff involved in transfusions must receive both technical and non-technical skills training to ensure safe transfusions. Non-technical skills should include awareness of human factors principles and principles for effective incident investigations. A team-based approach to learning with multi-professional learning strategy is essential to promote safe and effective delivery of patient care. A thorough competency-assessment for technical skills as mandated by the BSQR 2005 must be carried out
6. **Y**es, to safe, adequately resourced systems: Adequate staffing, equipment, use of safety measures such as risk assessments and checklists and effective use of transfusion IT vein to vein is critical to support safe transfusions. All these factors are interdependent and safety measures can only be effective if these building blocks for safe systems are all in place.

These themes are captured in the figure below:

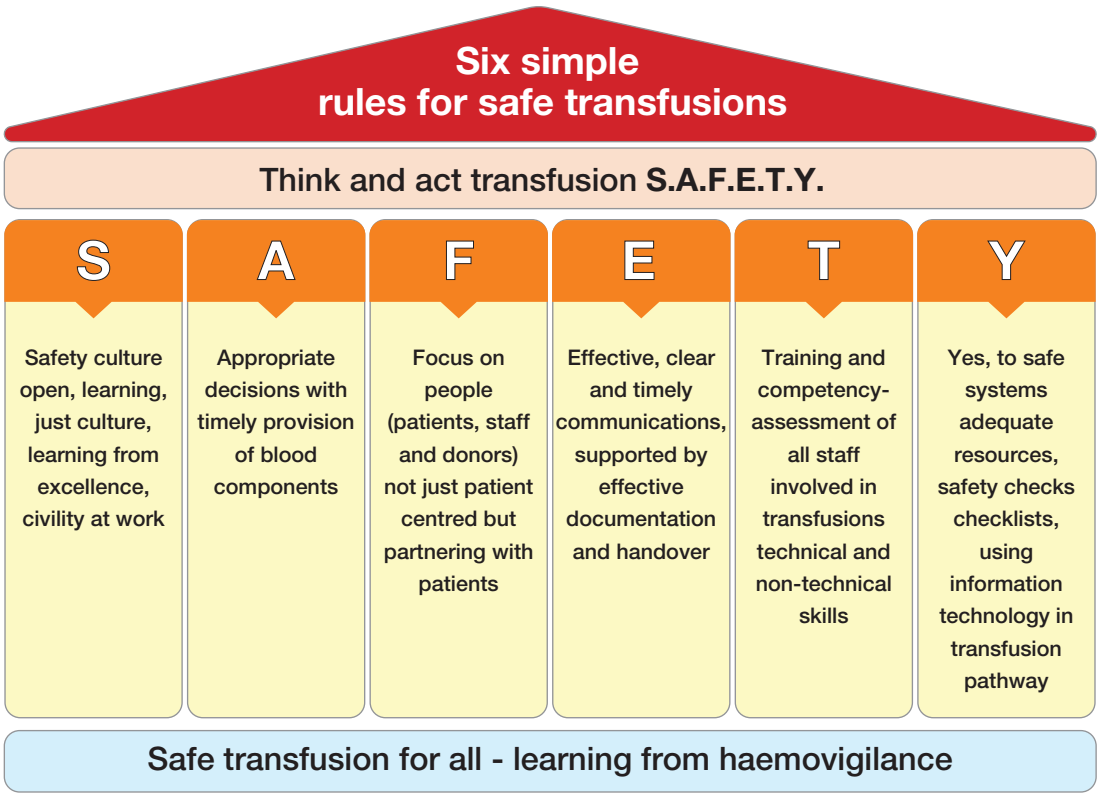


Figure 4.2:
Six simple rules for safe transfusions

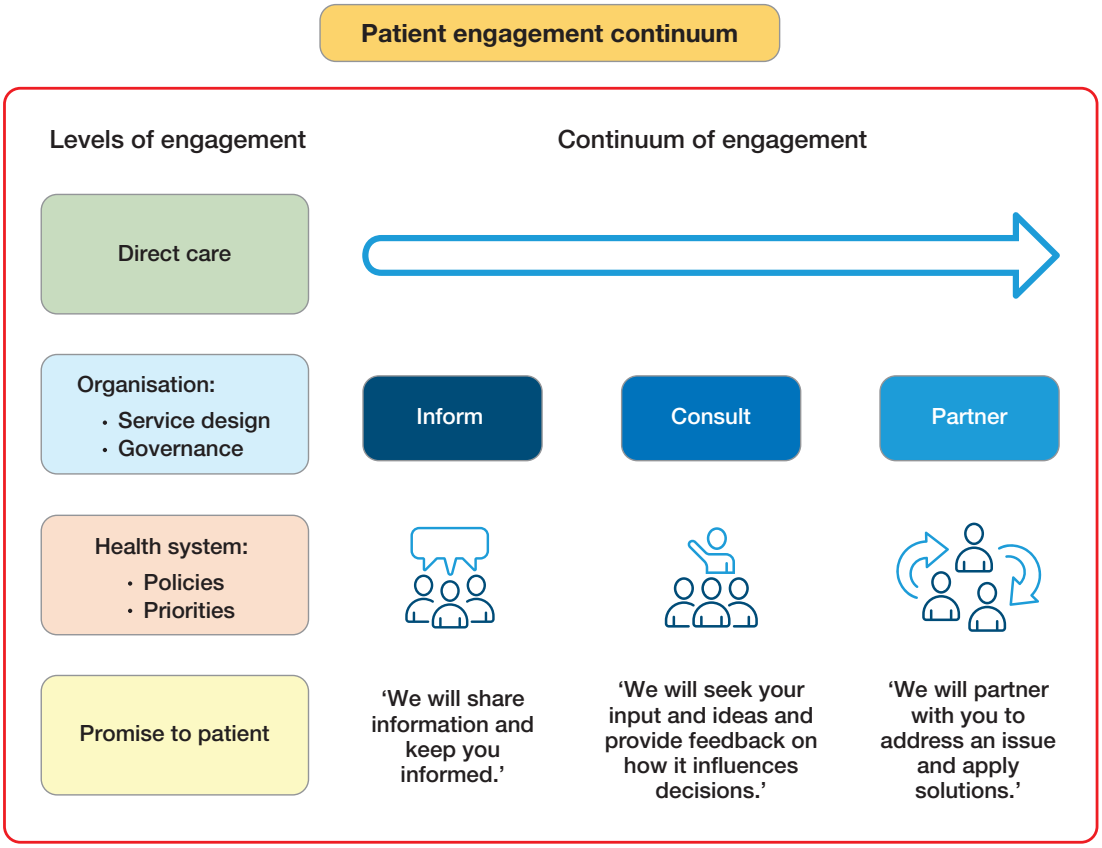
Key SHOT recommendations for 2021

The following main recommendations have been drafted to address the common themes identified as causal or contributory to adverse events that impact transfusion safety. Several reviews and patient safety incident investigations at a national level in the recent past have identified similar themes such as an urgent need to address staffing levels and poor resources, staff training, poor safety culture and the need to partner with patients for safer healthcare (Ockenden 2022, Cumberlege 2020, Paterson 2020).

Partnering with patients to improve transfusion safety

There is ample evidence that demonstrates when healthcare providers work closely with patients and their families, the healthcare system is safer, and patients have better experiences and health outcomes (Bombard et al. 2018). Partnering with patients and families shows respect, values their insights and experience, and empowers them to take an active role in their care. Engagement from patients can be both with their own safety and organisational safety measures. The engagement continuum ranges from low-level, where information is shared by providers with patients, to high level partnership, collaboration, and shared decision-making. All engagement levels are appropriate, and patients, families, and carers should be determining together with care providers and leaders what the most appropriate level of engagement is for each situation (Patient Engagement Action Team 2019).

Figure 4.3: Patient engagement continuum



Taken from: Engaging Patients in Patient Safety – a Canadian Guide (Patient Engagement Action Team 2017)

The NHS Patient Safety Strategy released in July 2019 recognises the importance of involving patients, their families and carers and other lay people in improving the safety of NHS care, as well as the role that patients and carers can have as partners in their own safety. As part of this strategy, a framework has been released that sets out how NHS organisations should involve patients in patient safety. This is relevant to all NHS Trusts and commissioners, and should also be useful to other NHS settings, including primary care and community services. It has been recommended that integrated care systems should consider how they can involve patients as part of their safety governance processes as they develop and mature (NHS England 2019).

Healthcare Improvement Scotland has a key role in supporting healthcare providers to make sure that their services are safe, effective, and 'person-centred' so that people are informed and involved in their care and treatment and are treated with dignity and respect. The 'engaging people strategy' outlines the strategy with the Scottish Health Council Committee having delegated responsibility for monitoring the implementation of the strategy – reporting to the Board on progress against key priorities, and the delivery of operational plans (Healthcare Improvement Scotland 2014).

A Healthier Wales is a policy developed by the Welsh Government in June 2018 and makes recommendations on how health and care services might be realigned to manage current and future demands. This makes a commitment on public engagement and a subsequent report sets how this might be translated into an evidence-informed programme of activity (Worthington et al. 2020).

Similar policies and frameworks with supporting useful resources for personal and public involvement are available for Northern Ireland where there is a statutory duty to involve and consult with service users and carers (directly or indirectly through their representatives) and the Patient Client Council in the planning, development of the provision of care and efficacy of that care. In 2018 the Health and Social Care services in Northern Ireland was further directed to move towards a co-productive approach (where appropriate) (HSC Public Health Agency 2022).

There are several opportunities along the transfusion pathway to involve patients as shown in the table below. The degree to which patients might be actively engaged in the transfusion process depends on several factors including the patient's awareness about how to be involved, their ability to participate which largely depends on their physical and cognitive capacity and their willingness to participate and take on an active role (Davis et al. 2011).

Table 4.1: Opportunities for patient involvement in the transfusion pathway

Step in the transfusion pathway	Opportunities for patient involvement
1. Decision to transfuse and consent	Questioning the rationale and appropriateness for transfusion, risks, benefits, alternatives, number of units and type of components, and providing consent Provide information about any past transfusion history, complications/ reactions, and any known antibodies
2. Sample taking	Checking the wristband or other means of identification with correct details; blood samples have been labelled correctly, positive patient identification asking for name and date of birth and address
3. Administration and monitoring	Checking the wristband or other means of identification with correct details; positive patient identification asking for name, date of birth and details checked against the unit of blood Patients asking questions about what they can and cannot do while receiving a transfusion Asking how they should feel during the transfusion and what to expect e.g., how often their temperature, observations should be checked/taken Making sure their observations are taken Monitoring how they feel Reporting to staff if they do not feel well or if they think there is a treatment complication, both during and after transfusion
4. Communications	Discharge summary, post-transfusion information, GP
5. In case of any incidents	Participate in incident investigations, provide information

An aide memoire has been developed to help improve patients' awareness about how to be involved and collaborate with healthcare professionals in ensuring transfusion safety. See 'Recommended resources'.

As is evident from several incidents reported to SHOT and included in this Annual SHOT Report, while patients have raised concerns and queries regarding the transfusion support they were receiving (either when they felt the component being transfused was not right or whether that was needed at all), they are not being listened to effectively resulting in missed opportunities to ensure and enhance safety. Education of clinical staff, in addition to clinical knowledge, skills and technical expertise, must include effective skills to communicate with and listen to patients.

Communication skills form the foundation for a more positive patient-provider relationship, leading to greater patient satisfaction and better patient compliance. Communication skills are not just restricted to talking, but also to listening and nonverbal communication. In the patient's eyes, the ability to communicate well forms a major component of the clinical competence of the staff involved. The ability to communicate effectively with patients can contribute significantly to improved patient outcomes. These skills can be taught and learned. There is a new call to extend the checklist concept to develop safety checklists that can be used by patients to help empower their involvement in safety practices. Only a handful of studies around patient-completed checklists exist, but those that do indicate a positive impact on patient empowerment and involvement in safety-related behaviours (Harris et al. 2021).

Main recommendation 1: Patients as safety partners

Staff must ensure that they involve, engage and listen to patients as 'partners' in their own care, including transfusion support. Engaging patients, their families, and carers as 'safety partners' helps co-create safer systems, identify, and rectify preventable adverse events. The responsibility of delivering safe care remains in the hands of the healthcare professionals and patients should not feel that if they do not wish or are unable to contribute to their own safety they will, as a result, receive substandard care. Involvement should be encouraged, but patients should not feel pressured into being partners in their own safety if they are not comfortable or able to do so. It is important to note that patients taking ownership of their own care does not and should not diminish the responsibility of health professionals.

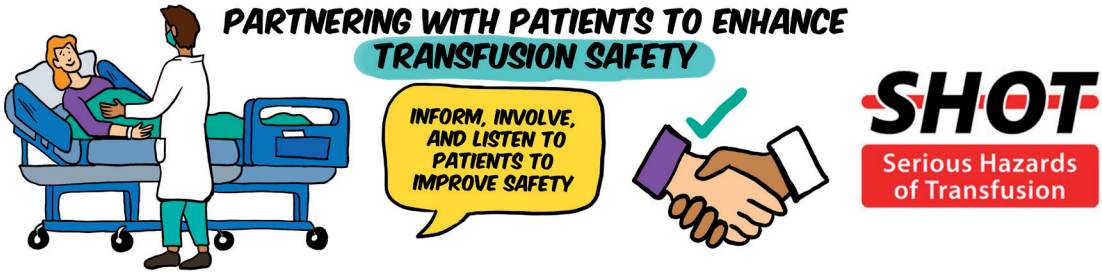
Actions required:

Hospital senior management should:

- Ensure that organisational systems and processes are designed to be patient-centred
- Develop/implement policies and procedures for engaging patients, families and carers in their own care as well as in quality improvement patient safety initiatives and healthcare design

Clinical transfusion staff should:

- Be trained to listen to patients, communicate effectively using structured communication tools and involve patients in decision making where possible
- Encourage patients to ask questions and provide leaflets, signpost videos and apps as relevant relating to transfusion support as applicable to the patient
- Ensure that patients receive copies of all clinical letters including discharge summaries, outlining their condition and treatment, in simple language, as well as copying these letters to the patient's GP
- Proactively involve patients in their care (monitoring, follow up, making choices regarding treatment) with shared decision making
- Encourage patients to raise concerns, participate in incident investigations as appropriate and provide feedback on actions taken
- Recognise when patients may not want to take any responsibility for safety issues and instead trust that they are being provided with competent care



Investing in safety - ensuring adequate staffing and a well-resourced system to ensure transfusion safety

Having the right infrastructure is vital in promoting improved standards of care and wellbeing for all patients. This is a key pillar in ensuring safety and improving outcomes. Any health system needs adequate staff, funds, equipment including IT, information, supplies, transport, communications and overall guidance and direction to function. Strengthening and building safer health systems thus means addressing key constraints in each of these areas. Transfusion errors reported to SHOT are commonly errors caused by faulty systems, processes, and conditions that lead people to make mistakes. The key to eradicating transfusion errors and advancing patient safety is to create systems for reliable healthcare delivery. A major new comparison of global health systems places the UK second to bottom across a series of major healthcare outcomes, including life expectancy and survival rates from cancer, strokes,

and heart attacks (Knox 2022). Improvements in safety do not occur unless there is commitment and support from senior executive managers.

The NHS workforce is in crisis and urgent action is required to tackle a vicious cycle of shortages and increased pressures on staff, which has been exacerbated by the COVID-19 pandemic (The King's Fund 2022). Sufficient staffing levels and effective training and education of staff underpins safe practice. Such staffing challenges prevail within transfusion teams both clinical and laboratory and is evident from previous UKTLC surveys, BSH and Royal College of Pathologists workforce surveys. Workforce shortages increase the pressure on staff, leading to high levels of stress and absenteeism, and high staff turnover. This has a direct impact on the quality of people's care and is evident from several reports submitted to SHOT. Staffing issues need to be addressed urgently to improve safety.

Improvement in patient safety is a continuous cycle, including learning from Safety-I and Safety-II principles and adapting to change. Incident, and near miss, investigation should include review of human factors that may have contributed to the event. It should look at every aspect of the system, including training and competency-assessment, documentation, procedures, environment, equipment, staffing levels, workload, and leadership. The actions identified for improvement should be systems based, not focused on the individual(s) involved in the event. Improvements require investment, this may be purchase of equipment or information technology solutions, it may be staff training and education and it may be re-design of systems. Investments in reducing patient harm can lead to significant financial savings, and more importantly better patient outcomes (WHO 2019). Healthcare organisations should utilise processes for identification of risk, incorporate basic principles and innovations for safe design and use this knowledge in understanding the reasons for hazardous conditions and the ways to reduce vulnerabilities (Institute of Medicine 2000).

The COVID-19 pandemic has provided opportunities for new platforms for staff training including virtual and e-learning, that have now been embedded into routine practice. Staff should be provided with protected time for training, they should have the opportunity to attend external educational activities and they should have regular update training. Competency-assessment provides assurance that staff have the knowledge and skills to perform their role. But safe practice should not be reliant on good memory or vigilance, the system that the staff work within should be designed such that it supports good practice and incorporates alerts or fail safes to reduce errors. Process mapping helps understand the actions required to complete tasks, to release results or components for transfusion. It is an important aspect of understanding practice and identification of potential risk and should be incorporated into incident investigation.

Following an error, it is tempting to add additional actions to an existing process, a new checklist, a second checking process, but simplification of the process is often a more effective method for reducing risk of error. Where inclusion of a checklist is deemed appropriate it should be effective, supporting good practice without being overly long and prescriptive. Policies and SOP provide reference documents for safe practice, they should be clear and concise whilst including all relevant information. Although policies and SOP are a vital aspect of staff training it is accepted that it may not be possible or appropriate for staff to read these documents before performing activities and so they are often supported by shorter protocols, flow charts or scripts. Wherever possible systems should incorporate barriers to unsafe practice, these are often IT-related including LIMS, electronic blood management systems and electronic blood ordering systems. The IT system may block certain activities, such as the LIMS preventing release of ABOi red cells, or they may alert the user to a potential mismatch but allow continuation with appropriate override, such as release of non-irradiated red cells in an emergency. Where alerts are used, they must be clear, relevant, and not easily overridden to reduce risk of inappropriate override. It is important to recognise that rules and algorithms in IT systems are not there to replace the knowledge and skills of the BMS staff. Effective education and regular competency-assessment for lab staff are key to ensuring safe transfusion practice, supported by robust rules and algorithms in LIMS.

User-centred design is a framework where systems/processes are designed with the focus on the users and their needs in each phase of the design process. Users are involved throughout the design process to create highly usable and accessible products/services for them. The key principles for user-centred design were originally highlighted by Donald Norman (Norman 1988) and continue to be relevant. These should be applied to designing systems in healthcare including transfusion to enhance safety. Systems-based strategies with a collaborative effort by everyone from executive board to ward in healthcare are

needed urgently to reduce, if not eliminate, transfusion errors and bring about sustainable and tangible improvements in patient safety

Main recommendation 2: Workforce planning, safe staffing, and a well-resourced healthcare system

Healthcare leaders must ensure that systems are designed to support safe transfusion practice and allocate adequate resources in clinical and laboratory areas to support the following:

- Safe staffing levels
- Staff training in technical and non-technical skills
- Appropriate equipment, including IT systems

Actions required:

Hospital chief executives, senior leaders, medical directors, nursing directors, pathology service managers should ensure:

- Safe staffing levels in both clinical areas and transfusion laboratories. Minimum staffing levels should ideally be based on the overall workload, the acuity and complexity of work involved, considering the 3 previous years' data, for all absences including sickness, mandatory training, annual leave, and maternity leave. Senior leaders should ensure adequate staffing levels so that requisite time needed for staff training and competency-assessments is provided
- There is a clear escalation and mitigation policy where staffing levels fall below the minimum staffing levels for all health professionals. Staff must be able to escalate concerns if necessary
- A proportion of the budget is ring-fenced for training staff involved in transfusion. Staff must receive training in technical and non-technical skills including the NHS National Patient Safety Syllabus and those involved in incident investigation must receive appropriate training in relevant skills
- Adequate resources are available for staff to carry out transfusions safely. This includes implementation of effective and reliable transfusion IT systems to reduce the risk of errors at all steps in the transfusion pathway, provided they are configured and used correctly
- Policies, procedures, and resources including IT are set up based on user-centred design principles and are simple, easy to follow

SHOT
Serious Hazards of Transfusion

Organisational safety culture and leadership

Fostering a strong and effective safety culture is vital to reducing transfusion incidents and errors, thereby directly improving patient safety. The safety culture of an organisation is a combination of individual and group values, attitudes, perceptions, competencies, and patterns of behaviours that determine the commitment to, and the style and proficiency of, an organisation's health and safety management. Strong, collective, empathetic, and authentic leadership is critical in safety culture. Organisations with a positive safety culture are characterised by communications founded on mutual trust, shared perceptions of importance of safety and by confidence of the efficacy of preventative measures (Stavrianopoulos 2012).

Safety culture demonstrates the ownership of safety throughout the organisation and at all levels. It is about the mindset of the organisation and its people, looking at how their values and beliefs influence the way health and safety procedures are implemented and used on a day-to-day basis, and allows people at all levels to take ownership of their own, and others safety. Safety culture isn't just about simple compliance to health and safety policy but also about staff's approach to said policy.

Five critical elements have been identified for an engaged organisation with a good safety culture (Haddon-Cave 2009):

- **Reporting culture**: an organisational climate where people readily report problems, errors and near misses
- **Just culture**: an atmosphere of trust where people are encouraged and even rewarded for providing safety-related information; and it is clear to everyone what is acceptable and unacceptable behaviour
- **Flexible culture**: a culture that can adapt to changing circumstances and demands while maintaining its focus on safety
- **Learning culture**: the willingness and competence to draw the right conclusions from its safety information and the will to implement major safety reforms
- **Questioning culture**: It is vital to ask, 'What if?' and 'Why?' questions. Questions are the antidote to assumptions, which so often incubate mistakes

Figure 4.4: Critical elements of a safety culture

A just culture ensures balanced accountability for both individuals and the organisation responsible for designing and improving systems in the workplace. NHS Improvement's 'A just culture guide' provides a powerful tool to help promote cultural change in organisations or teams where a blame culture is still prevalent (NHSI 2021). Such a culture helps empower employees to proactively monitor practices in the workplace and ensure safety. Risk reduction will be achieved by focusing on human behaviours and redesigning systems. One of the 2018 key SHOT recommendations was that all NHS organisations must move away from a blame culture and towards a just and learning culture (Narayan et al. 2019). While there are still instances of punitive blame culture, there is increasing awareness and adoption of just culture in healthcare organisations in the UK.

Leadership is the critical element to ensure safe care in all healthcare organisations. Only senior leaders can influence and foster the culture and commitment required to address the underlying systems causes of errors in healthcare and harm to patients. Senior leaders include chief executive officers and the executives who report to them, senior clinical leaders, and board members. The unique role of leadership is to establish the value system in the organisation; set strategic goals for activities to be undertaken; align efforts within the organisation to achieve those goals; provide resources for the creation, spread, and sustainability of effective systems; remove obstacles to improvements for clinicians and staff; and require adherence to known practices that will promote patient safety. When leaders begin to change their responses to mistakes and failure, asking what happened and why; instead of who made the error, the culture within their healthcare institutions will begin to change.

IHI provided the following key steps to achieving patient safety and high reliability in healthcare organisations (Botwinick et al. 2006):

Step One: Address strategic priorities, culture, and infrastructure
Step Two: Engage key stakeholders
Step Three: Communicate and build awareness
Step Four: Establish, oversee, and communicate system-level aims
Step Five: Track/measure performance over time, strengthen analysis
Step Six: Support staff and patients/families impacted by medical errors
Step Seven: Align system-wide activities and incentives
Step Eight: Redesign systems and improve reliability

In October 2021, the government launched a review of leadership in health and social care. This landmark review has been led by General Sir Gordon Messenger and Dame Linda Pollard. The recommendations from the report, which was released in June 2022, are aimed at ensuring the right leadership is in place at all levels and that services can deliver the best possible care, tackle the COVID-19 backlog and address the disparities the pandemic has exposed across the country (Messenger and Pollard 2022). This report helps support a consistent approach to developing leaders. Collective, inclusive, and compassionate leadership is now increasingly recognised as essential for delivering high-quality care and cultural change throughout the NHS (Jones et al. 2022).

Main recommendation 3: A just, learning safety culture in all organisations

All healthcare leaders must promote a just, learning safety culture with a collective, inclusive, and compassionate leadership. Effective leaders must ensure staff access to adequate training, mentorship, and support. All staff in clinical and laboratory areas have a responsibility to speak up in case of any concerns and help embed the safety culture in teams.

Actions required:

Hospital senior management should:

- Ensure staff feel able to talk about their concerns and report when things go wrong
- Ensure policies state what staff should do following an incident, how it should be investigated, and what support should be given to patients, families, and staff. They should promote a just and learning culture dealing with people in a just, compassionate way with an inclusive approach, acknowledging through learning to support the changes required when people make errors
- Ensure all staff have access to complete the NHS Patient Safety Syllabus training programme
- Ensure that staff involved in incident investigations receive adequate training in using human factors principles-based investigation frameworks and identifying effective corrective and preventative actions
- Ensure that staff have access to a good mentorship programme
- Regularly assess their organisation's safety culture using a safety assessment survey and take appropriate actions to address any concerns identified

Clinical and transfusion laboratory staff should:

- Ensure they complete the NHS Patient Safety Syllabus training programme and are compliant with the relevant current national legislation, guidelines, and recommendations
- Be familiar with human factors principles and application and be able to identify system focused sustainable solutions if involved in incident investigations
- Demonstrate to their team the measures the organisation takes to ensure reports are dealt with fairly and that the appropriate learning and action takes place

SHOT
Serious Hazards of Transfusion

Recommended resources

Aide memoire for patients - tips to help improve transfusion safety
Safe Transfusion Checklist
The A-E decision tree to facilitate decision making in transfusion
The ten steps in transfusion
https://www.shotuk.org/resources/current-resources/

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