

SHOT Transfusion Safety Standards frequently asked questions

These questions are based on initial feedback received during the development of SHOT Transfusion Safety Standards. This document will be updated regularly as additional queries are received. If your question is not answered within this document, please contact shot@nhsbt.nhs.uk

Purpose Statement

‘These standards aim to improve patient safety, reduce errors, and support a consistent, high-quality approach to transfusion practice.’

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Why has SHOT developed these Transfusion Safety Standards?

The SHOT Transfusion Safety Standards are grounded in many years of UK haemovigilance data. They are designed to help reduce avoidable harm, support healthcare staff, and enhance patient outcomes by embedding safe, evidence-based transfusion practice into day-to-day patient care. These safety standards replace the Annual SHOT Report recommendations and aim to embed safe transfusion systems and processes into practice and organisational culture.

Why are SHOT Transfusion Safety Standards necessary now?

SHOT Transfusion Safety Standards are necessary now more than ever, as many of the issues repeatedly identified by SHOT remain unresolved despite long-standing recommendations. Factors such as competing priorities, limited resources, post-pandemic pressures, and a lack of sustained implementation have contributed to

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persistent gaps in safety. Introducing formal standards provides much-needed structure and consistency, creates a culture of safety and accountability, and enables healthcare providers to prioritise and allocate resources more effectively. These standards not only aim to safeguard patients but also protect healthcare staff and support their wellbeing. Additionally, they support regulatory compliance and help drive measurable, long-term improvements in transfusion safety.

The SHOT Transfusion Safety Standards directly respond to the findings and recommendations of the Infected Blood Inquiry and are informed by the systemic gaps highlighted by the Inquiry and reports submitted to SHOT. These gaps have also been highlighted by [Lord Darzi's report from an independent investigation of the NHS in England](#) and the Health Services Safety Investigations Body report released in September 2024 '[Recommendations but no action: improving the effectiveness of quality and safety recommendations in healthcare](#)'. The Infected Blood Inquiry laid bare the consequences of failure to act on known risks, inadequate regulatory oversight, and the marginalisation of the patient voice. It called for a fundamental shift in how safety is governed—emphasising leadership accountability, transparency, and an unwavering focus on those affected by harm. These SHOT Transfusion Safety Standards are a direct response to answer that call. They promote a culture that is open, just, and centred on safety, with clear expectations around learning from incidents, listening to patients, ensuring responsibility and accountability is owned from board to bedside.

Organisations have had challenges with trying to comply with SHOT recommendations that changed, or new ones each year. These SHOT Transfusion Safety Standards that replace the recommendations from serial Annual SHOT Reports provide a static framework with short, medium and long terms goals.

How were the SHOT Transfusion Safety Standards standards developed and who were the stakeholders involved in the process?

An initial set of standards were drafted by SHOT late in 2024 based on existing guidance, regulations and recommendations in serial Annual SHOT Reports. Following review by the SHOT Steering Group/Working Expert Group members in February 2025, the standards were updated and shared widely to a wide range of stakeholders across UK. These included members of all the national blood transfusion committees of the 4 UK nations, members of various sub-groups involved in implementation plans for the recommendations from the Infected Blood Inquiry report (this has representatives from a wide range of professional bodies and staff groups), UK Transfusion Laboratory Collaborative, Transfusion Laboratory Managers group, National Transfusion Practitioners Network, British Society for Haematology Transfusion Task force and Royal College of Pathologists Transfusion Specialty Advisory Committee. Input from the wide constructive feedback received has helped shape the standards and we are grateful for everyone's contributions. The standards were further update following this wide engagement and finalised prior to release in July.

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We recognise that not all individuals or organisations may have had the opportunity to provide input during the development of the standards despite our efforts and wide dissemination. While we are confident that the wide range of feedback received has helped shape a robust and relevant set of standards, we are fully committed to being open, inclusive and responsive with continued engagement. We actively welcome ongoing feedback and will use it to inform future refinements, ensuring the standards remain practical, evidence-based and reflective of the needs and experiences of those delivering and receiving transfusion care.

Are these aligned with other standards and guidelines?

Yes, they are aligned with other standards and guidelines such as the United Kingdom Transfusion Laboratory Collaborative (UKTLC), National Institute of Health and Care Excellence (NICE), British Society for Haematology (BSH), and the Blood Safety and Quality Regulations (BSQR).

Who is expected to comply with these SHOT Transfusion Safety Standards?

The SHOT Transfusion Safety Standards are applicable to all healthcare organisations involved in transfusion support. These standards apply to relevant aspects of blood services where the interface transfusion practice: blood donation practices are outside the scope of these standards. For reference, the SHOT Transfusion Safety Standards have been mapped to the relevant national standards and relevant guidelines in a separate document.

How will these SHOT Transfusion Safety Standards be used?

These standards will be used as a benchmark for transfusion safety, helping organisations measure and maintain high standards of care. They will inform local audits and improvement plans, support training programmes and policy development. By embedding these standards into practice, they will also help guide day-to-day transfusion practice, ensuring consistency, accountability, and safer outcomes for patients.

How long do organisations have to implement these SHOT Transfusion Safety Standards?

While the safety standards have been launched in July 2025, organisations are encouraged to carry out a baseline assessment and use the findings to plan a phased implementation approach, allowing time for familiarisation, local adaptation and progressively embedding this into practice. This supports sustainable change and meaningful integration across clinical and laboratory settings. It is expected that organisations have an improvement plan in place within the first year of the publication of the standards.

How can the SHOT Transfusion Safety Standards be measured?

Each standard is underpinned by clear, practical criteria that guide hospital management teams in how to meet expectations, drive improvement and embed best practice across clinical and laboratory transfusion care.

Quantitative and qualitative metrics can be used to help organisations identify gaps, monitor compliance, measure impact and identify areas for improvement. Measuring and reporting on compliance with these standards will ensure meaningful reflection and action, ensuring the standards lead to real, measurable change in transfusion safety and staff wellbeing. A document with the metrics will be published on the SHOT website in due course.

These standards are intentionally broad and generic so that they are relevant to all organisations where patients are transfused. In many organisations the standards will already have been met through existing local governance structures and quality assurance processes and in response to national guidance from professional bodies.

Will SHOT collect compliance data for the SHOT Transfusion Safety Standards?

No, SHOT will not be involved in monitoring the compliance for the SHOT Transfusion Safety Standards. SHOT will continue to monitor serious adverse reactions and events according to its remit.

Organisations are expected to assess and monitor compliance with these standards through a regular self-assessment process with clear governance and oversight.

How will healthcare organisations be assessed against the SHOT Transfusion Safety Standards?

Organisations are expected to assess themselves locally against these SHOT Transfusion Safety Standards. Compliance should be recorded as fully compliant, partially compliant, or non-compliant. Where gaps are identified, action plans should be developed to address these to ensure effective implementation and drive continuous improvement. This will replace the annual gap analysis against the recommendations in the current Annual SHOT Report and has the advantage of being a stable and consistent set of standards.

In the future there will be external oversight and compliance check by relevant regulatory or other government bodies providing oversight across the UK as part of routine quality assurance and governance processes. The Infected Blood Inquiry recommendation 7e states “That all NHS organisations across the UK have a mechanism in place for implementing recommendations of SHOT reports, which should be professionally mandated, and for monitoring such implementation”. Assessment against the SHOT

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Transfusion Safety Standards (which replace recommendation in this context) provides the framework for this monitoring.

Will the SHOT Transfusion Safety Standards be reviewed regularly by SHOT and how often?

The SHOT Transfusion Safety Standards will be reviewed every three years, considering UK haemovigilance data and the latest evidence-based guidance and practices. Should any urgent new issues arise, or advancements occur, additional standards may be introduced as necessary to ensure ongoing relevance and effectiveness.

Will there be an annual survey like the SHOT recommendations survey for the SHOT Transfusion Safety standards?

No, there will not be an annual recommendation survey from SHOT at this time. Any plans for future surveys will be determined as needed.

Are there any specific patient safety principles the SHOT Transfusion Safety Standards apply to?

Yes, these standards align with established patient safety principles outlined in the Patient Safety Syllabus and guidance from the Patient Safety Commissioner. For detailed information, refer to the links below:

[Patient Safety Commissioner: Patient Safety Principles \(23 October 2024\) - England - Patient Safety Learning - the hub](#)

<https://www.england.nhs.uk/patient-safety/the-nhs-patient-safety-strategy/>

<https://www.hssib.org.uk/>

<https://performanceandimprovement.nhs.wales/health-and-care-quality-standards/>

<https://www.healthcareimprovementscotland.scot/improving-care/improvement-resources/scottish-patient-safety-programme-spsp/>

<https://www.northernireland.gov.uk/consultations/framework-learning-and-improvement-patient-safety-incidents-consultation>

Who has endorsed these SHOT Transfusion Safety Standards?

These standards are endorsed by the four UK National Transfusion Committees and other relevant organisations. For a list of endorsing professional organisations, please visit:

<https://www.shotuk.org/transfusion-safety/transfusion-safety-standards/safety-standards/>

How can I find out more information?

A range of resources are planned to support the introduction and implementation of these standards, including webinars, drop-in sessions and a comprehensive toolkit. These will provide practical guidance and aim to answer any questions to help ensure a smooth adoption process. Any questions can also be emailed directly to SHOT for further assistance at shot@nhsbt.nhs.uk

Further information is available here: <https://www.shotuk.org/transfusion-safety/transfusion-safety-standards/safety-standards-toolkit/>

How can implementing the SHOT Transfusion Safety Standards be prioritised? Is there any funding support for the improvements?

Currently there is no dedicated funding available to address existing gaps. It is still particularly important that the SHOT Transfusion Safety Standards are released, to set the benchmark and the reference point. Patient safety cannot wait. Safe transfusion is a core healthcare responsibility and meeting these standards is a professional and ethical obligation, not a tick box task. Ensuring compliance is a sustained journey, requiring continuous attention and improvement.

It is vital that senior leaders actively support efforts to align with these standards, ensuring they are appropriately prioritised, resourced and governed at every level of the organisation. Leadership commitment is essential to drive lasting change and protect patients.

Will the responsibility for implementing the SHOT Transfusion Safety Standards fall on the hospital transfusion team/committee?

Implementation and ensuring compliance with the SHOT Transfusion Safety Standards is a shared responsibility across the entire healthcare system. It cannot and will not rest solely with the hospital transfusion teams/committees. These groups should inform senior leaders about the gaps in local systems and help prioritise improvement initiatives. Strengthened governance structures, including oversight at board level, are being embedded to ensure accountability, leadership, and system-wide support for safe and effective transfusion practice.

As part of the work related to implementation of recommendation 7e from the Infected Blood Inquiry report, a framework for effective transfusion governance is being drafted as a key output from the subgroup with clinical and laboratory representatives from across UK. This is expected to be released later this year and will be promoted widely.

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The transfusion governance framework for hospitals will be published later this year. When published can be accessed via this link <https://www.shotuk.org/transfusion-safety/transfusion-safety-standards/transfusion-governance/>

Why has SHOT issued these SHOT Transfusion Safety Standards rather than other relevant regulatory organisations?

As the UK's independent, professionally led haemovigilance organisation, SHOT is best placed to issue these transfusion safety standards. With insights from laboratory and clinical transfusion events and system-wide reporting, SHOT is uniquely positioned to set the standards that address the identified gaps. This evidence-based perspective enables SHOT to set standards that drive measurable improvements in patient safety and are critical to optimising safety for every patient receiving a transfusion.

The SHOT Transfusion Safety Standards were created with broad and meaningful engagement across the UK with insights from clinicians, scientists, regulators and crucially, patient representatives whose voices have helped shape key elements in these standards. One of the IBI recommendation to improve transfusion safety was to ensure compliance with SHOT recommendations, these standards address this. SHOT is UK wide, compared to other organisations that may be nation specific only.

What's next/what are organisations expected to do now?

Following the release of the SHOT Transfusion Safety Standards in July 2025, all organisations are expected to work towards compliance. A baseline assessment tool will be provided later in July which can help with this assessment and development of clear, practical, phased improvement plans to address identified gaps. SHOT fully acknowledge the challenges faced by hospital teams, particularly in the face of competing demands and limited resources. Achieving compliance is a journey- this is about building a safer, more resilient transfusion pathway for every patient and your roadmap towards enhanced safety for all and better outcomes for patients.

We recognise the significant challenges including financial pressures currently facing the NHS and the strain on services and teams. These realities are not lost on us. As the national haemovigilance organisation, SHOT will continue to listen, highlight the safety risks and inform system-level discussions to ensure transfusions safety remains a national priority. Everyone at SHOT is committed to advocating for the visibility, support and resourcing that safe transfusion practice demands both in clinical and laboratory settings.

What practical resources are being produced to support clinical and laboratory teams implement and monitor the SHOT Transfusion Safety Standards?

The following resources are in development and will be available as indicated via this timeline:<https://www.shotuk.org/transfusion-safety/transfusion-safety-standards/safety-standards-toolkit/safety-standards-timeline/>

- Baseline assessment tool
- FAQ document based on the wide stakeholder feedback received for the standards. This document will be regularly updated
- Webinars and drop in sessions
- Available resources from SHOT and other organisations related to the topics in the standards

Additional FAQs

What is the rationale for including fatigue management as a specific component of staff wellbeing in the standards?

Staff wellbeing encompasses a broad spectrum of physical, mental, and emotional health factors that are essential not only for individual resilience but also for safe and effective patient care. These include manageable workloads, psychological safety, access to rest and recovery, support for mental health, and a culture that values compassion and connection. Staff wellbeing has been explicitly prioritised in the SHOT Transfusion Safety Standards. This reflects the recognition that staff wellbeing is not only vital for individual resilience but also a key organisational patient safety risk.

Staff fatigue has been explicitly highlighted due to its historically under-recognised role as an organisational patient safety risk. Emerging evidence and recent publications increasingly underscore that compromised wellbeing can directly impact clinical decision-making, communication, and error rates. Prioritising staff wellbeing is therefore not just a matter of workforce sustainability—it is a critical component of patient safety.

By embedding wellbeing and safety into the standards, SHOT aims to provide a clear impetus for organisations to actively consider and address staff-related safety factors. This shift encourages a more holistic approach to transfusion safety—one that supports both patients and the professionals who care for them.

How do we measure and record staff fatigue?

Staff fatigue is not currently captured within existing organisational data collection relating to staff wellbeing. NHS organisations and teams are strongly encouraged to proactively capture and understand staff fatigue within their local contexts and to recognise fatigue as an organisational safety risk. Identifying incidence, causes and

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patterns of fatigue, and addressing contributory factors is essential to maintaining safe systems of work and protecting both staff and patients.

SHOT aims to incorporate staff fatigue into the Human Factors Investigation Tool, with relevant information collected as part of future incident reporting processes. This will support a more comprehensive understanding of contributory human factors and enable more effective learning from incidents.

In addition, educational resources are being developed to raise awareness of staff fatigue, promote early recognition, and support the implementation of mitigation measures. These resources will aim to empower teams to take practical action to reduce fatigue and enhance safety across the organisation.

Here are some useful links for further information:

[The impact of staff fatigue on patient safety](#)

[Healthcare staff fatigue: The unrecognised risk for patient safety - ScienceDirect](#)

[Fatigue risk management for health and social care | CIEHF](#)

Links to additional resources, such as SHOT Bites on staff fatigue, will be made available once finalised.

Where can I find more information about the regulatory and professional bodies relevant to transfusion practice? Who will have oversight of progress with implementation of the SHOT Transfusion Safety Standards?

In the United Kingdom, the safety and quality for blood transfusions are overseen by several professional and regulatory authorities, each with distinct but interrelated roles. Further information can be found in the short animated video which provides a quick overview and is available at this link: [Introduction to regulatory and professional bodies in blood transfusion - Serious Hazards of Transfusion](#). It is important to note that the SHOT Transfusion Safety Standards do not replace but complement other regulatory standards and best practice recommendations from professional bodies.

Links to the various regulatory and professional bodies can be accessed here: [Links to sites of interest - Serious Hazards of Transfusion](#)

At present, there is no formal agreement in place regarding responsibility for oversight of compliance with, and progress in implementing, initiatives to address gaps identified against the SHOT Transfusion Safety Standards across the four UK nations. Discussions are ongoing between relevant stakeholders to determine appropriate governance and oversight arrangements. This information will be updated once agreements are finalised and confirmed.

What is the role of UKAS in relation to transfusion laboratories?

United Kingdom Accreditation Service (UKAS) is the UK's national accreditation body. They assess and accredit organisations that provide services including certification, testing, inspection, calibration, validation, and verification. Accreditation confirms that laboratories and service providers are independent, competent, and reliable, operating in line with internationally recognised standards. It is important to note that the MHRA serves as the competent authority under the [Blood Safety and Quality Regulations](#), overseeing blood establishments, hospital blood banks, and transfusion laboratories to ensure compliance with regulatory standards. All laboratories providing testing should be accredited with UKAS, the National Accreditation Body for the United Kingdom ([UKAS - The UK Accreditation Body - Creating Confidence](#)).

The SHOT Transfusion Safety Standards include leaders as role models as one of the criteria. Could you explain this further?

Effective leadership is vital in healthcare because it directly influences patient outcomes, staff wellbeing, and the overall effectiveness of care delivery. Ineffective leadership can contribute to patient safety incidents. While leadership is a shared responsibility, not limited to only those in formal roles but across all levels, where leading and following are dynamic, interdependent skills. To strengthen teamwork and patient care, education must focus on developing the leadership–followership competencies essential to ensure safe patient care. The [Rose review](#) (2015) and the [Messenger Review](#) (2022) highlighted the need for effective leadership training and provided a roadmap. Publication of the [Management and Leadership Framework](#) (by autumn 2025) is a commitment within the NHS 10-Year Health Plan.

Staff in leadership roles must consistently model the behaviours expected across the workplace. To ensure accountability and growth, leadership skills and conduct should be evaluated annually through performance appraisals, using clear and relevant key performance indicators. Recognising the critical role of leadership in delivering safe, effective care, leadership principles and requirements have been formally integrated into the SHOT Transfusion Safety Standards.

What is the rationale for including cell salvage in Standard 1.3?

Cell salvage is an important component of patient blood management, particularly in surgical settings with very high blood loss such as cardiac, complex vascular surgery and scoliosis surgery. It involves the collection, processing, and reinfusion of a patient's own blood to reduce the need for allogeneic blood transfusions. The UK Cell Salvage Action Group (UKCSAG) supports the implementation of cell salvage as part of a broader blood conservation strategy. Further information about UKCSAG and relevant resources can be accessed at this link: [UK Cell Salvage Action Group - Transfusion practice - JPAC](#)

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Cell salvage has been included in Standard 1.3 because there are specific clinical situations where its use is indicated in line with national guidance. The NICE Blood Transfusion guideline (NG24) recommends the use of tranexamic acid and cell salvage in certain contexts: [Overview | Blood transfusion | Guidance | NICE](#). Incorporating cell salvage into Standard 1.3 ensures alignment with these national recommendations and promotes best practice for patient safety and effective patient blood management. Should national guidelines on cell salvage be updated, SHOT will review and update the corresponding SHOT Safety Standard accordingly.

What is ‘full functionality’ in terms of the IT systems implemented to support safe vein-to-vein transfusion practice?

Technology has now been developed, and continues to be improved, for all steps in the transfusion pathway across clinical and laboratory settings. The SHOT Transfusion Safety Standard 2 relates to transfusion IT and equipment and states: *All IT systems and equipment to support safe vein-to-vein transfusion practice are configured, validated, implemented and utilised correctly to their **full functionality***. The term ‘full functionality’ was first used in [key recommendation 2 of the 2017 Annual SHOT Report](#) and has been reiterated and expanded in the [UKTLC standard 3 on Information Technology](#). These recommendations are based on reports to SHOT where IT errors have been analysed, as well as publications and reports that demonstrate the benefits of IT systems and automation to patient safety in clinical transfusion practice.

Staff are encouraged to consult BSH guidelines and relevant regulatory guidance for transfusion IT systems throughout procurement, implementation, and operation. Available upgrades, fixes, and patches should be applied to maintain system integrity. Errors often occur when steps in procurement, validation, or training are omitted. SHOT notes that system improvements or fault resolutions are not automatically shared with all users. Those responsible for transfusion IT in clinical and laboratory settings should stay informed about their system’s benefits and issues by actively communicating with other users and the manufacturer. This ensures optimal functionality and minimises errors.

Where can we access Human Factors & Ergonomics (HFE) information and training?

There are a range of resources available to support learning and development in Human Factors & Ergonomics (HFE), including both SHOT-led training and external courses from trusted organisations.

SHOT HFE training

SHOT runs annual Human Factors & Ergonomics (HFE) in transfusion courses each autumn and winter. Dates are announced on the SHOT website and shared through the SHOT newsletter when they become available.

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Further SHOT HFE information: <https://www.shotuk.org/human-factors-and-ergonomics-hfe/>

External HFE learning resources

- NHS England e-learning (NHSE elfh Hub): <https://www.e-lfh.org.uk/>
Provides a foundation in HFE principles through structured online modules.
- Chartered Institute of Ergonomics and Human Factors (CIEHF):
<https://ergonomics.org.uk/professional-development/training-courses.html>
Offers a range of HFE training courses suitable for different levels of experience.
- [Human factors and ergonomics | NHS Education for Scotland](#)
- Additional free courses from other reputable and trusted providers may also be available to complement both introductory and advanced learning.

These resources can be used alongside SHOT training to build a comprehensive understanding of HFE and its application in practice.