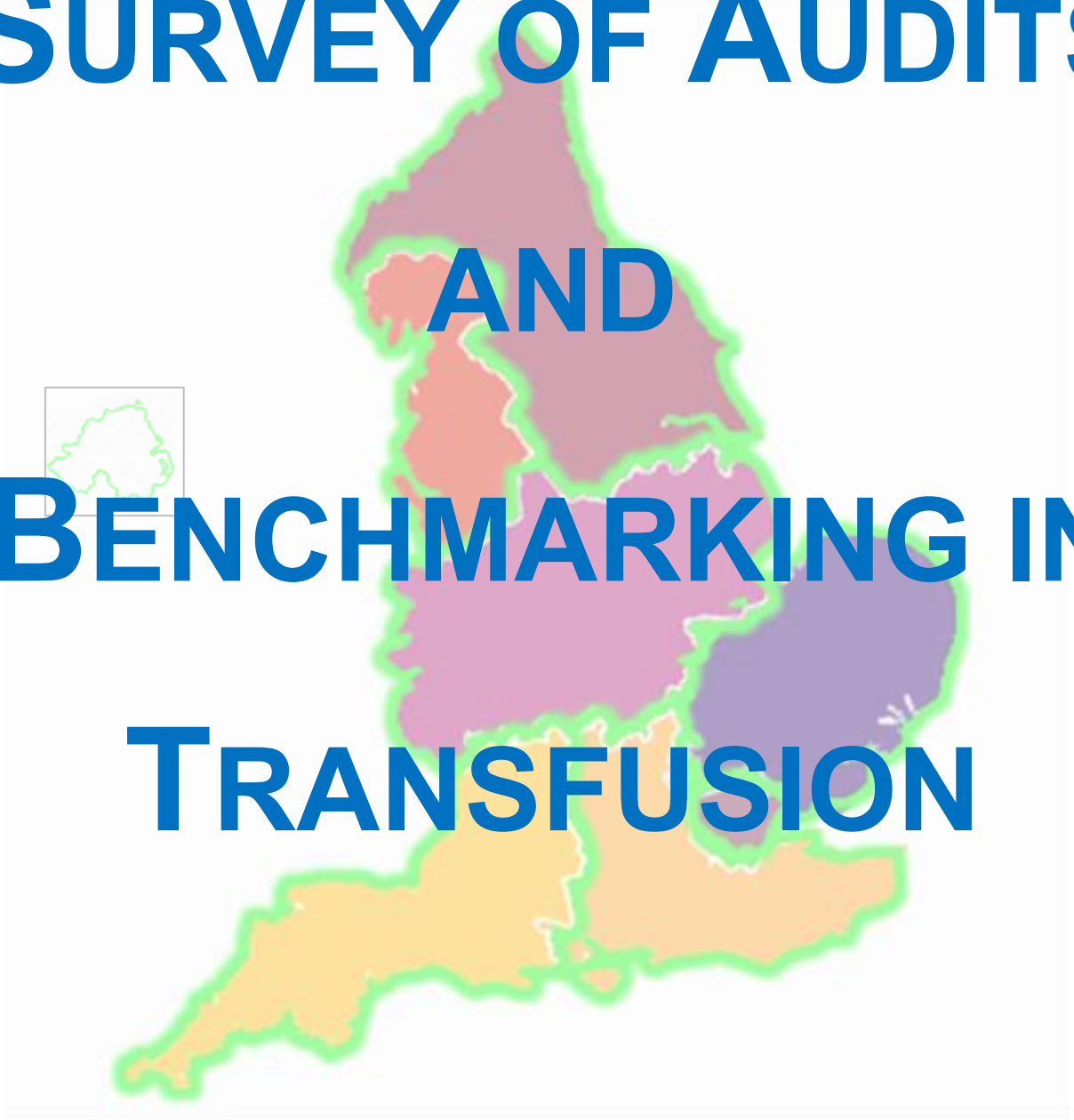
NTPN
The National Transfusion Practitioner Network

SURVEY OF AUDITS AND BENCHMARKING IN TRANSFUSION



LEAD: STUART LORD

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Survey of Audits and Benchmarking in Transfusion

Rationale

This survey was aimed at understanding transfusion audit and benchmarking activity across hospital trusts represented within the National Transfusion Practitioner Network (NTPN). The insights gathered will help the NTPN identify current areas of focus and highlight gaps, driving future national and regional audit/benchmarking.

Benchmarking is the process of measuring and comparing our own services, processes, or performance against those of others (either by region or by usage). This information can then be used by individual Trusts to identify performance gaps and implement strategies to improve practice.

Audit is a systematic quality improvement process that evaluates healthcare services by comparing them against established standards and guidelines. The goal is to identify where practice meets, or falls short of, the standards for high-quality care to implement national or regional changes that improve patient outcomes and the overall quality of services.

Response Rate

111 responses received in total.

Region	Respondents	% of responses	% of response /region/trust
North East and Yorkshire	17	15%	77%
East of England	13	12%	93%
London	22	20%	83%
South East	18	16%	88%
South West	18	16%	100%
Midlands	12	11%	52%
North West	10	9%	45%
Northern Ireland	1	1%	100%

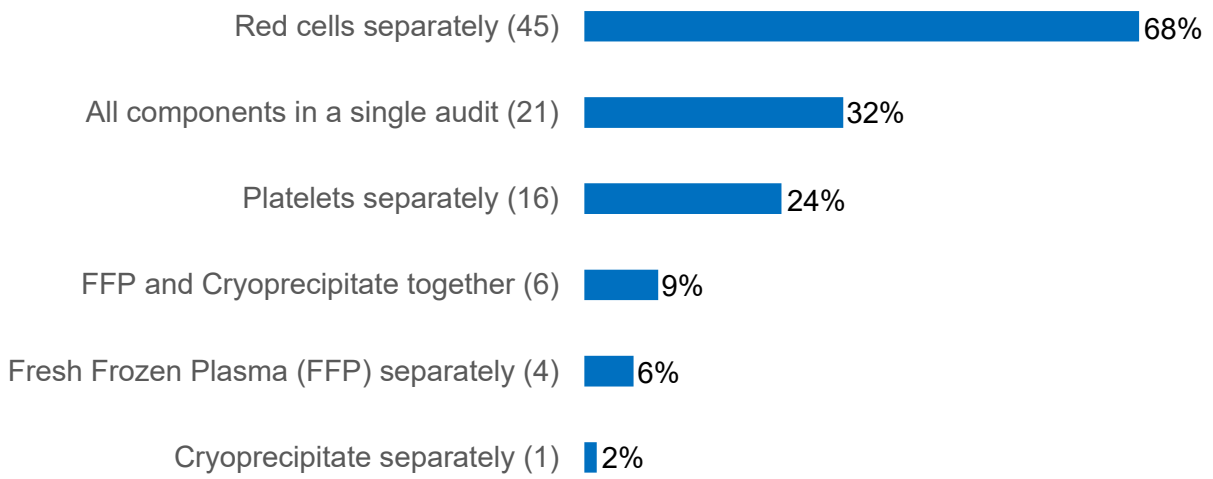
Survey of Audits and Benchmarking in Transfusion

Results

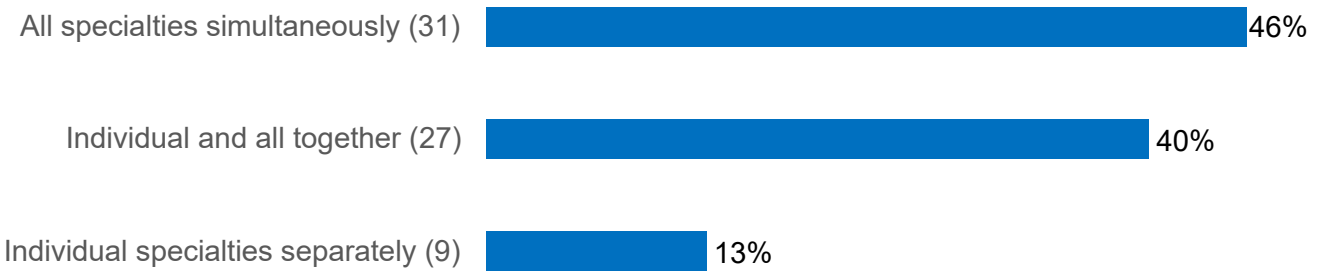
Participants were asked if they had completed the following in the last 12 months or were planning to do so in the next 12 months

Appropriateness of Transfusion: Ensuring that transfusions are justified and meet clinical guidelines, avoiding unnecessary or inappropriate use of blood products.

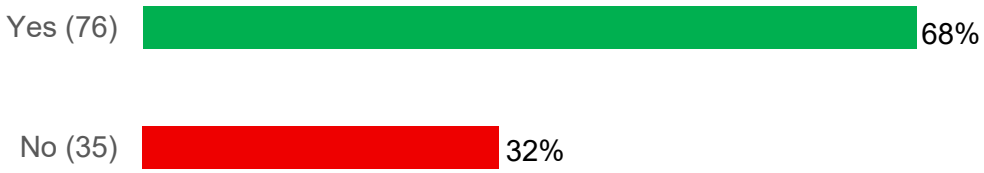
Please specify which blood components you have audited to assess their appropriateness in clinical use (tick all that apply)



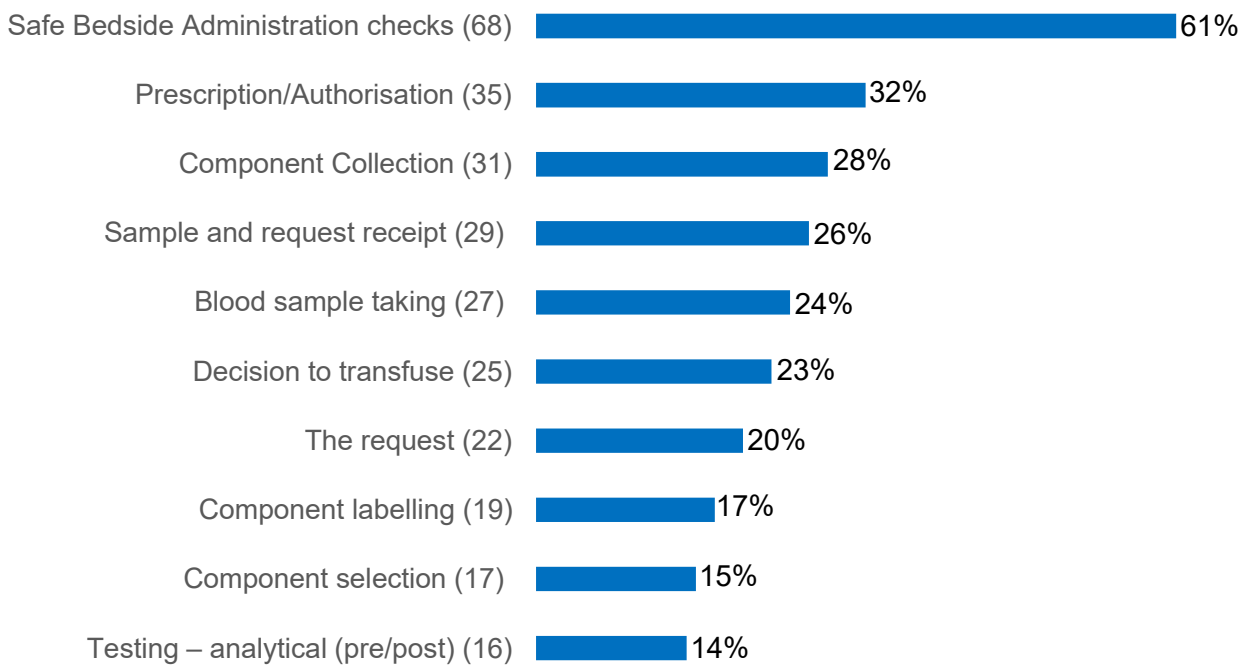
How do you conduct audits to evaluate the appropriateness of transfusions?



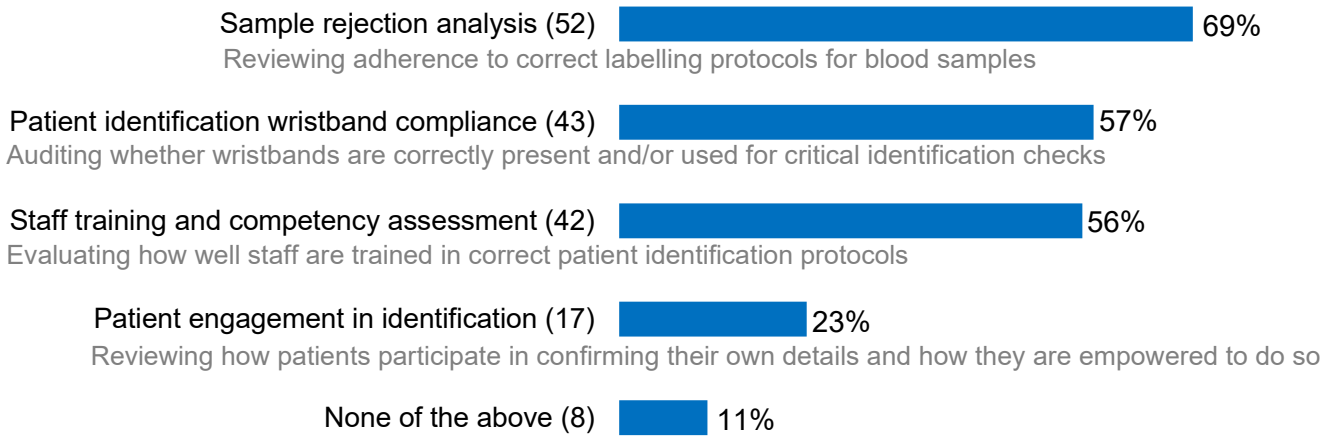
Patient Identification: Evaluating key patient identification steps throughout the transfusion pathway to ensure accuracy, reduce risks, and support action plans for improved compliance and patient safety.



Please specify below if your audit(s) or planned audits covered the below steps where positive patient identification is considered essential (SHOT 10 steps in transfusion). Please select all that apply.

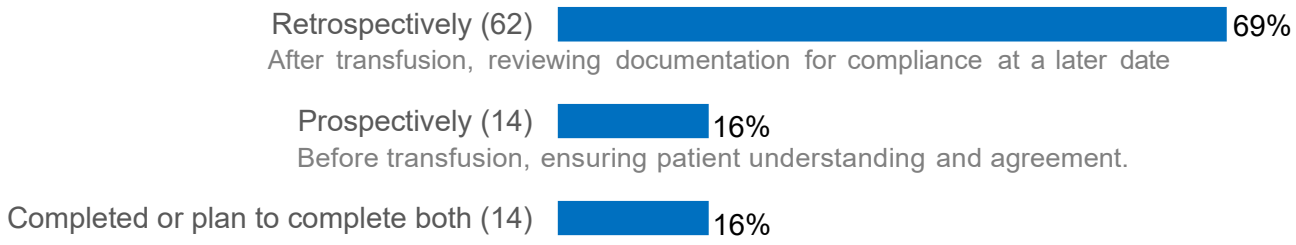


In addition to the steps mentioned above, have you conducted or do you plan to conduct audits on any of the following elements?



Consent Process: Evaluating whether informed consent for a blood transfusion has been properly obtained and documented

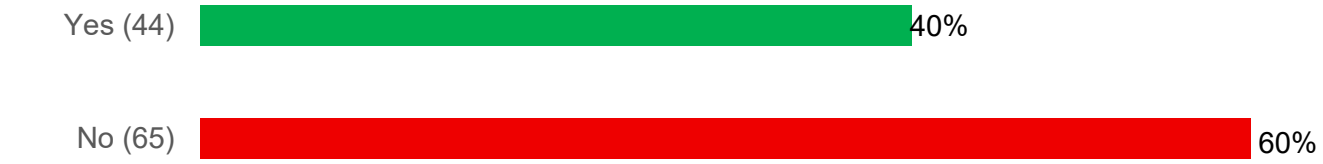
How was informed consent obtained and reviewed as part of your audit design?



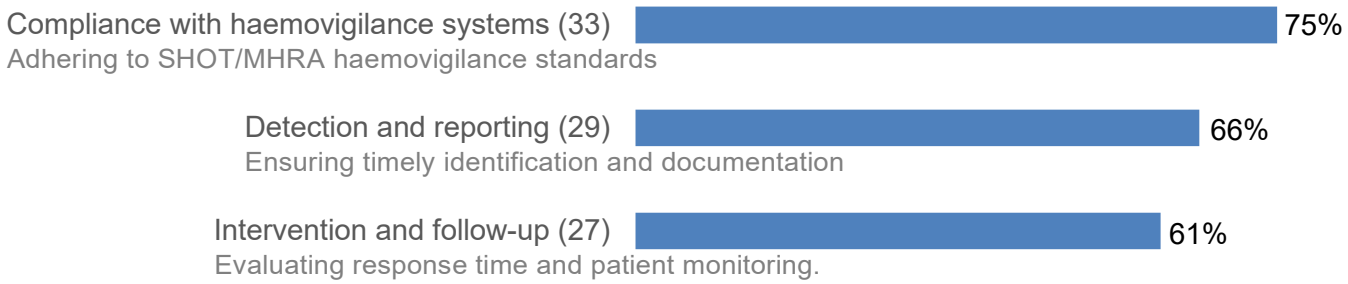
Handling and Storage of Blood Products: Assessing whether blood components are stored and transported in compliance with Blood Safety and Quality Regulations

Traceability of Blood Components and Products: Ensuring a full audit trail of blood components from donation to final fate of unit (transfusion or wastage)

Management of Adverse Reactions: Reviewing how adverse transfusion reactions are identified, reported, and/or managed

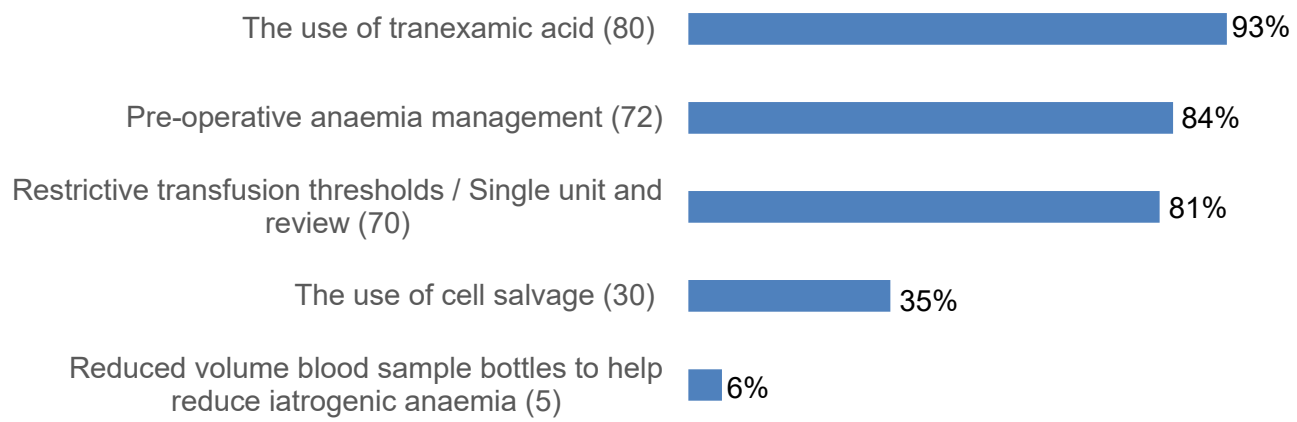


Does this include any of the following areas (tick all that apply)?



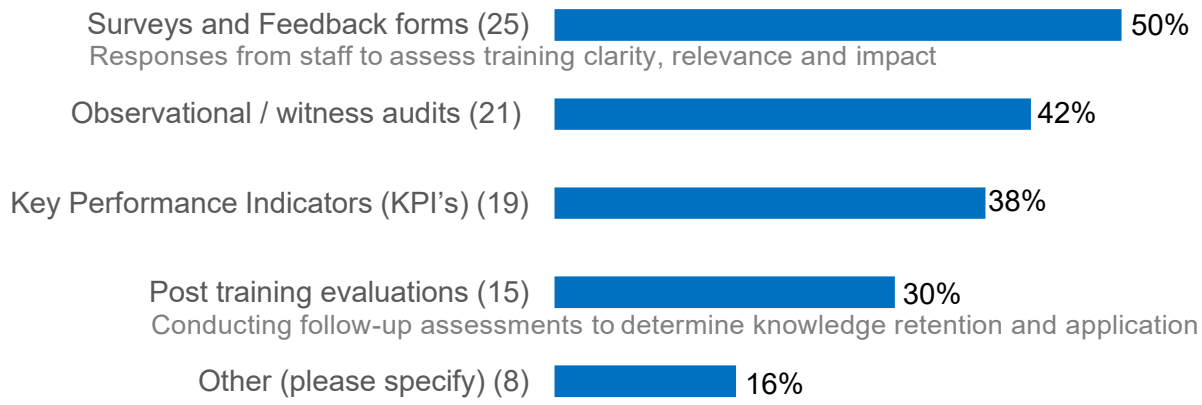
Blood Conservation Strategies: Evaluating methods aimed at minimising the need for transfusions, such as pre-operative anaemia management, use of Tranexamic Acid, Cell Salvage etc.

Does this include any of the following areas (tick all that apply)?



Education and Training: Auditing the training provided to healthcare staff involved in transfusion practices (e.g. do you audit and evaluate the effectiveness of the training program in assessing the competency of registered practitioners for the safe administration of blood components?)

Do you use any of the following methods to successfully do so (tick all that apply)?



Below is the information that the 8 who choose other to the above question gave

Knowledge Assessments - 2

Questions and answers -1

Simulation if appropriate

e-learning

Incident and near miss analysis - 2

ESR competencies and pass rates

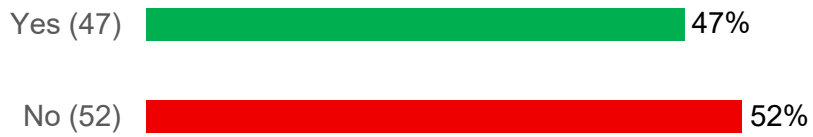
Recorded on LEAP

Monitoring stats

Patient Outcomes: Assessing the clinical effectiveness of transfusions in terms of patient recovery and overall health outcomes

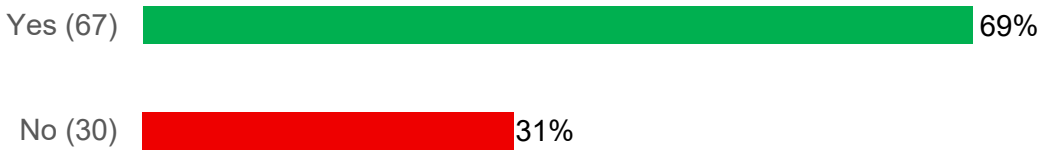
Management of Major haemorrhage: Evaluation of timely recognition, intervention, and protocol adherence in the management of major haemorrhage.

If yes, have you undertaken (or plan to) an audit on the use of Prothrombin Complex Concentrate (PCC) either as part of a Major Haemorrhage audit or as stand-alone audit?



Are you aware of the SHOT participation benchmarking reports that are produced for each reporting organisation?

If yes, does your organisation use these reports locally to monitor your level of participation compared to organisations with similar transfusion activity?



SUMMARY

Audit is a significant tool in clinical governance and can be used to drive improvements in practice and patient safety, and there is a lot of organisational audit activity being undertaken to review transfusion processes

Appropriateness of component use – the majority audit red cells regularly with platelet and plasma audit happening less frequently. These audits were equally distributed between all specialties together and individual specialties.

Patient Identification – the majority audit the use of a safe bedside checklist with less frequent audit of individual factors.

Handling and Storage – this would be included as part of the bedside check audit

Traceability – as above. This should be an ongoing audit as part of the BSQR

Education and Training – Effectiveness of training is not audited as often as other subjects and is not as easy to assess – suggest that the number of SHOT reports and adverse incidents.

Patient Outcome – the low level of completion of this as an audit is likely to be a reflection of the complexity of healthcare.

Major Haemorrhage: A full audit of component use in major haemorrhage is suggest every 4 years and would include the use of PCC.

SHOT Benchmarking: Regional Transfusion Committee could be the platform for presenting this

information.

Adverse reactions: Survey results show that 60% of respondents have not audited, and do not plan to audit, the management of adverse transfusion reactions. While this may reflect competing priorities or resource constraints, it suggests an opportunity for the NTPN to provide guidance to help make these audits more achievable and highlight their value in improving patient safety.

RECOMMENDATIONS

Benchmarking data should be relatively easy data to gather and should not go into any details a list of KPI that everyone could collect monthly is below with suggested targets. These Key Performance Indicators provide reassurance that practice is safe – if there is any deviation a deeper audit can be done It is recognised that many teams face time and priority pressures that impact audit and benchmarking activities. This survey, findings and recommendations are not simply about compliance but understanding these challenges and working together to develop practical solutions that make these processes easier and more effective

	Target	Source of target
Donor unit collection	100%	Regulatory requirement
Begin Transfusion (Tag or PDA)	100%	Patient Safety
End Transfusion documented	99%	
All units given within <4 hrs of Move Out	99%	Patient Safety
Adverse incidents as a % of units given		To date there is no national target for this. This data could be collected as part of a transfusion practice audit and a target determined
Traceability	99%	Regulatory requirement
Rejected Samples - Mislabelled	<5%	From previous NCA
O neg as a % of issue	12.2%	NHSBT recommendation
O Neg % given to avoid waste	<10%	From previous NCA
Red Cell Wastage (WAPI)	<2%	NHSBT target
Platelet Wastage (WAPI)	<5%	NHSBT target
O negative Red Cell Wastage (WAPI)	<4%	From previous NCA
SABRE reports submitted	100%	This indicates that 100% of identified cases are reported
SHOT reports submitted	100%	
National Comparative Audit Participation	100%	
Clinical staff training (Donor Unit Collection)	65%	This indicates that at least 65% of clinical staff have received the required training and should be set locally as it depends on how many staff need to have training in order for there to be someone on every shift
Clinical staff training (Administration)	65%	
Laboratory staff competency (on call staff only)	100%	Regulatory requirement
Laboratory identified staffing	100%	UKTLC suggestion
Average satisfaction score from feedback surveys e.g. trust induction session, eLearning module	<4 out of 5	

Audit should be more in depth but less frequent as it is time consuming

Appropriateness of component use: audit every 2 years looking at a representative selection of specialties. This can be worked out by using a similar table to the one below. NB: Other specialties are available.

Specialty	Units/month Month1	Units/month Month2	Units/month Month3	Average % over 3 months	No. of units to audit
Haem	150	165	158	49	49
Gen Med	50	69	62	19	19
Gen Surg	10	8	8	3	3
Oncology	70	68	62	21	21
Obstetric	30	20	18	7	7
Gynae	10	5	8	2	2

Appropriateness can be based on the National Indication Codes or the documentation of rationale if outside the code.

This will enable each hospital to compare against others and if they are outliers can then do a deeper audit themselves to identify why.

A similar system can be used for platelets and plasma use but on a 4 year cycle

Patient Identification: The bedside checklist is probably the most important step for patient safety and confirmation that it has been used successfully indicates safe practice and includes documentation of consent. Whilst it is useful to survey patients to make sure they understand the information given this is very time consuming so suggest that a survey is sent to patients receiving a transfusion at least once every 4 years alternating with sample rejection.

Education and Training and patient outcome: Rather than a separate audit it is suggested that this is monitored by tracking complaints and adverse incidents.

Every year there would be 3 national audits with each one following a repeat cycle every 2 or 4 years.

Suggested Criteria for Transfusion Practice Audit – done every 2 years this covers most of the topics that require audit.

Selection of units would be the same as that outlines for appropriate use of components

Criterion 1: Compliance to the Key Quality Indicators

Definition	Target	Rationale/Exceptions
Move Out – documented using the Kiosk or on paper if Kiosk not usable	100%	Blood Safety and Quality Regulations (2005) (BSQR) requirement
Begin Transfusion – time, observations and bedside checklist documented using the PDA, returning a completed compatibility label or fully completed authorisation	100%	Patient safety alert CEM/CMO/2017/005.
End Transfusion time documented as above	99%	British Society for Haematology (BSH) guideline for administration of transfusion
Transfusion Time <4.5 hrs after removal from controlled storage	95%	SHOT recommendation

Criterion 2: Compliance to other quality indicators

Definition	Target	Rationale/Exceptions
% of errors from Criterion 1		No target available
Overnight Transfusion (started between midnight	<25%	SHOT recommendation

and 06:00)		

Criterion 3: Patient Identification band

Definition	**Target**	**Rationale/Exceptions**
All Patients having a transfusion will be wearing a printed identification band (that includes surname, forename, hospital number and DOB) or have a documented risk assessed alternative that meets the same criteria.	100%	Safer Practice Notices (2005/11 and 2007/24) Risk assessed alternatives must be recorded in the patients' healthcare notes/EPR and include the circumstances and reasons why the policy has not been followed, and what action was taken to accurately identify
Criterion 4: Vital signs/observations		
Definition	**Target**	**Rationale/Exceptions**
Non-urgent red cell transfusion will have transfusion observations recorded 14m30s – 30m59s after the transfusion begins	75%	Transfusion reaction prior to 15 minutes. Also known as 15 minute observations this time range is recommended as acceptable by National Comparative Audit

Criterion 5: Deviation from Authorised time

Definition	Target	Rationale/Exceptions
All units will be fully transfused within the authorised time plus or minus 10%. If the time is exceeded there will be a documented reason why.	100%	BSH guideline

Criterion 6: Adverse Incidents

Definition	Target	Rationale/Exceptions
Any incidents (reactions or events) relating to the transfusion must be recorded in the notes/EPR and have had the correct action taken	100%	BSQR

Criterion 7: Authorisation Sheet

Definition	Target	Rationale/Exceptions
All non-emergency units must have a Transfusion Record sheet (version 1.6 or 1.7) authorising the transfusion. Documentation on this sheet must include.		
a) Indication for transfusion	100%	Reason for transfusion, consent and consideration of special requirements must be documented in the notes/EPR. This is part of NICE Guideline (NG) 24 Standard QS138 4 Patient safety alert (NatPSA/2024/004/MHRA) BSH guideline SHOT safety Notice: 02
b) Consent - either all boxes below ticked or scored through and unable to consent box ticked (compliant with mental capacity act)	100%	
i. Reason for transfusion explained	100%	
ii. Risks and benefits explained	100%	
iii. Process of administration explained	100%	
iv. Special needs discussed	100%	
v. Alternatives available to reduce the need for transfusion discussed	100%	
vi. Leaflet given or offered but declined	100%	
vii. Advised that they can no longer donate	100%	
c) Weight	100%	
d) TACO risk assessment	100%	
e) Previous reactions	100%	
f) Special requirements	100%	
g) Product, volume and rate	100%	

Criterion 8: Haemoglobin checks

Definition	Target	Rationale/Exceptions
a) All inpatients will have a Hb check with 24 hours of begin transfusion, day care patients within 48 hours.	100%	BSH guideline: If this is not the case the reason why must be documented
b) All stable, non-bleeding patients having a transfusion will have a Hb and clinical assessment after every unit before another unit is started.	100%	NG24 Standard QS138 3

Criterion 9: Discharge Summary

Definition	Target	Rationale/Exceptions
All transfusions must be documented on the discharge summary and include that the patient has been informed that they can no longer donate. Any reactions/complications must also be documented o the discharge summary	100%	NG24 Patients who died, have not yet been discharged or transferred to another hospital in an emergency

Suggested Cycle of Audits

The suggested audit cycle is provided as an example; some teams may already have established schedules, so this is intended as guidance

`	Appropriateness	Patient ID	Other
Year 1	Red Cell	Transfusion Practice	Major Haemorrhage
Year 2	Platelet	Sample mislabeling	Cell Salvage

Year 3	Red Cell	Transfusion Practice	Major Haemorrhage
Year 4	Plasma	Patient survey	Cell Salvage