National Comparative Audit
of Blood Transfusion

NHS
Blood and Transplant

National Comparative Audit of Bedside Transfusion Practice 2024 (Re-audit)

22nd July 2024

ACKNOWLEDGMENTS

We wish to thank all those who have participated in this National Comparative Audit. We recognise that many people have given up their valuable time and that this will inevitably have been on top of a heavy workload. This audit would not have been possible without this support. We are equally grateful to the many colleagues for their valuable and constructive comments.

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- James Cook University Hospital

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SUMMARY

- 2918 transfusions were audited by 166 sites over a 2 month period.
- The audit demonstrates overall reasonably safe practice but has identified areas for improvement.
- Knowledge gaps, staffing pressures, lack of equipment (such as workstations on wheels, ID band printers), environmental factors (space, layout), set-up of systems (e.g. accessibility of a checklist) and varying practice in outpatient settings were all identified as contributing to poor compliance.
- The prospective observational design of this audit enabled auditors to pick up errors or omissions as they happened and to take immediate corrective steps and provide education in real-time.

Checking process

- A pre-transfusion checklist was not used in 14.1% (411/2918) of transfusions. 7.1% (12/168) of sites reported not having a checklist in place.
- 67.3% (113/168) of sites have a policy requiring a two-person check before blood administration, and of those 70.6% (72/102) specify a two-person independent check. Of 1764 two-person checks observed, 833 (47.2%) were not carried out independently. Misunderstanding about the meaning of a two-person independent check was common.
- 3.5% (137/3895) of checks were not carried out at the bedside.
- The checking process was interrupted in 7.8% (210/2690) of cases but was only recommenced from the start in 49.0% (96/196). Most interruptions could be avoided by ensuring equipment, patient and prescription are all ready before collecting units.

Positive patient ID

- 3.4% (99/2907) of patients were not wearing a form of ID, and in two thirds there was no appropriate reason for this.
- In 7.0% (241/3434) of transfusion checks, the patient was not positively identified by asking them to state their name and date of birth, and these details were not checked against the ID band in 4.1% (140/3420).

Individual bedside checks

- Compliance with most individual steps in the checking process was between 88% and 99%. A visual inspection of the unit (88.5% compliance, 3461/3910) and a check against special requirement stated on the prescription (92.6% compliance, 1444/1559) were most frequently missed.
- A two-person independent check increased the likelihood that between them, one checker would cover every step.

Electronic systems

- 36.3% (61/168) of sites have an electronic bedside system for pre-transfusion checks.
- An electronic device was used in 25.0% (728/2913) of transfusion checks observed. Where an electronic device was used, there was lower percentage compliance with all steps of the staff checks, including those (positively identifying the patient, check of details against ID band, ensuring component matches prescription, visual inspection of unit) that the device cannot check.

Patient observations

- A complete set of observations was not recorded pre-transfusion in 6.2% (178/2885) of cases, during transfusion (within 30 minutes of starting) in 11.7% (337/2878) and post-transfusion in 12.4% (354/2850).

Training

- 94.8% (4426/4670) of staff performing bedside checks had completed transfusion training within the last 3 years, but 39 reported having no training and 205 (4.4%) were unsure.

Note that denominators vary as not all questions were answered for all cases audited.

RECOMMENDATIONS

- Hospital transfusion teams should review their training on bedside transfusion practice to ensure:
  - This is in line with Trust policy (e.g. with regard to two-person independent checking, or number of staff required when using an electronic device)
  - This emphasises the reasons *why* checks are required, not just how to perform them
  - Refresher sessions/ bite-sized reminders of key points are available in between the main 2 or 3 year mandatory training cycle
- Ensure a pre-transfusion checklist is available in a format facilitating easy use at the bedside
- When electronic bedside systems to support pre-transfusion checks are introduced, transfusion teams should ensure:
  - The systems are configured and equipment available so they can be used *at the bedside*
  - Training emphasises the continued importance of human checks, particularly those that the machine cannot perform (positive patient ID and check against wristband/ check against prescription/ visual inspection of unit)
  - They continue to review how the devices are used in practice and identify any workarounds which can erode the safety benefits
- If site audit has identified a cultural or systemic issue with ID bands (e.g. not being used in a particular setting, with no risk-assessed alternative) this should be escalated through hospital safety governance, as this represents a risk extending beyond transfusion.
- Empower patients to view the ID check as a positive step to ensure their safety, and to ask for this if it has not been performed – this may be particularly applicable in regularly-transfused patients in an outpatient setting, where there is a risk of complacency.
- Consider whether prompts can be built into the transfusion pathway, for example to ensure that equipment and patient are ready prior to collecting blood, and observations are taken. Electronic systems and integrated care plans may have a role in this.
- Disseminate local audit findings via a top-down (nursing governance) and bottom-up (ward nurses in charge, staff huddles) approach, to ensure key messages reach the individuals performing these tasks day-to-day. This should include settings not involved in the original data collection.

INTRODUCTION

Why Was This Audit Necessary?

Ensuring the right blood is given to the right patient is a crucial aspect of transfusion practice and undertaking the correct pre-administration bedside checks in the correct way is a critical point in reducing potential errors.

NHS Trusts are required to ensure that all staff involved in the transfusion process are adequately trained and that robust policies are in place to cover all aspects of transfusion care. These policies must specifically include the pre-transfusion bedside administration checks, the care of the patient during a transfusion episode and the management and reporting of any adverse events.[1] A patient safety alert issued by the Department of Health in 2017 highlighted that patients were being harmed, and some had died, as a result of being given incorrect blood, including ABO incompatible transfusions. Most could have been prevented if the final bedside check had been carried out correctly. This alert encouraged use of a structured bedside checklist, both to prompt all necessary checks, and to allow documentation that all steps were performed.[2]

A series of national audits of bedside transfusion practice have been carried out since the mid-1990s with the last performed in 2011. Those audits highlighted that a small proportion of patients receiving blood were vulnerable to errors due to lack of adequate pre-transfusion identification checks and appropriate observations.[3] Previous cycles of this audit focussed on retrospective notes-based audit to confirm whether the bedside transfusion process was being followed. On this occasion we used a prospective observational methodology to better understand the reasons for errors and identify opportunities for improvement.

Electronic blood management systems have been recommended,[4,5,6] with an aim to improve transfusion bedside safety via barcode scanning technology. This enables an automated electronic check of the component to be transfused against the patient's requirements in the Laboratory Information Management System (LIMS). This audit will record the use of these systems and their impact on compliance with bedside checks.

This audit will provide data and insight into current practice and highlight areas where further work is required in order to meet national standards.

What Did This Audit Aim to Achieve?

The key aim of this re-audit is to determine whether the current BSH guideline 'Administration of Blood Components' (2017) is being followed and to determine if there has been any improvement in compliance compared to previous audit cycles. It also looked to assess whether any specially developed documentation or technologies used to support bedside transfusion practice have a beneficial effect. The audit seeks to understand the reasons for any areas for non-compliance, to help identify the barriers and facilitators of good practice.

Results will be summarised nationally and regionally and individual site data will be fed back to reporters. The findings will feed into recommendations for improvements, and organisations can tailor their response based on local needs identified by their own site results. The ultimate aim is to improve blood transfusion safety by working to reduce the risk of harm due to a wrong component being transfused, and ensure patients are appropriately monitored to detect any adverse reaction.

Who Are the Principal Stakeholders?

- NHS Trusts
- Independent hospitals
- NHS Blood and Transplant (NHSBT)
- National Blood Transfusion Committee (NBTC)
- SHOT

METHODS

How Were NHS Trusts and Independent Hospitals Recruited?

All NHS Trusts and independent hospitals in England were invited to participate in the audit. Trusts/ Health boards and hospitals in Wales, Northern Ireland and Scotland were also invited to participate.

Data were submitted by Trusts as a whole and by individual hospitals. Therefore, the term "sites" is used throughout this report to refer to either Trust or hospital.

Sampling Strategy

Sites were asked to provide data on a sample of up to 40 patients being transfused in the months of March and April 2024.

We additionally asked for details of what electronic systems sites had in place to support the bedside transfusion process.

Where did the Standards Come From?

- BSH guidelines on administration of blood components[1]

Data Collection Method

The auditor was asked to attend the clinical area shortly after a unit of blood had been collected for transfusion. They observed the bedside checking process, recording any omissions and the reasons for these. The staff member performing the checks was asked to verbalise the process so the auditor was aware what information they were checking. To ensure patient safety, auditors were advised to offer a prompt if any check had been missed, before transfusion was commenced. Auditors recorded whether clinical observations had been documented pre-, during and after transfusion, either by reattending the clinical area or looking at electronic records if available.

Audit data were entered onto pre-printed proformas which were returned to NHSBT for processing or entered directly into the NHSBT online audit system. The data collection form is included in Appendix 2.

In addition, an organisational survey asked Trusts about their policies for performing bedside checks (one-person or two-person and the details of these), the availability of a bedside checklist and the adoption of electronic bedside systems (Appendix 2).

Pilot

The pilot was conducted by members of the Project Group at the following sites:

- Great Ormond Street Hospital
- Manchester Royal Infirmary
- James Cook University Hospital

Analysis and Presentation of Results

Data were analysed using Microsoft Excel.

National results are presented in this report as percentages.

Where relevant and comparable, data from the 2011 cycle of audit have been included for comparison.

Where two members of staff performed a check independently, their checks were assessed separately. The number of checks audited therefore exceeds the number of transfusion episodes. Where staff checked together, this was evaluated as a single check.

Not all questions were answered for every site (for organisational data) or for every transfusion (for clinical audit data). Data are presented as number of evaluable cases, so the denominator varies for individual metrics.

AUDIT STANDARDS

The BSH guidelines on administration of blood components were reviewed and the standards below were set out for audit.

Criterion	Standard	Exceptions
1. A patient having a blood transfusion is wearing an identification band (or risk assessed equivalent).	100%	None
2. The patient's identification contains the patient's last name, first name, date of birth and unique patient identification number.	100%	None
3. The patient's identity is checked prior to transfusion by asking the patient to state their full name and date of birth and checking these against the form of identification (such as wristband).	100%	Patient unable to respond
4. The identity details on the identification are checked with the compatibility label attached to the blood component and the prescription/authorisation.	100%	None
5. The blood component compatibility label and prescription/authorisation are checked to ensure that the type of blood component authorised is the same as the type of component received.	100%	None
6. The component pack label and written authorisation are checked to ensure that any additional requirements have been met	100%	None
7. The unique component donation number and the blood group on the component pack label are checked and confirmed to be the same as on the laboratory-generated label attached to the blood component.	100%	None
8. The component blood group is checked and confirmed to be appropriate for the patient blood group.	100%	None
9. The expiry date of the component is checked and confirmed to be within date and time.	100%	None
10. The component pack is visually inspected for signs of leakage, damaged packing or other defects.	100%	None
11. The final administration checks are conducted next to the patient's bedside and undertaken by the healthcare professional who is going to administer the component.	100%	None
12. On successful completion of checks, the transfusion should be started immediately.	100%	None
13. If the checking process is interrupted, the entire process must be restarted.	100%	None
14. Pulse, blood pressure, temperature and respiratory rate are measured before a unit of blood is transfused.	100%	None
15. Pulse, blood pressure, temperature and respiratory rate are measured at 15 minutes after the transfusion starts.	100%	None
16. Pulse, blood pressure, temperature and respiratory rate are measured at the end of each transfused unit.	100%	None
17. Blood components must only be administered by a trained, competency assessed Healthcare professional	100%	None

RESULTS

127/139 (91.4%) eligible NHS trusts in England signed up for this audit. A further 3 Trusts from Scotland, 7 Boards from Wales and 2 Trusts from Northern Ireland participated from within the public sector and 2 from the independent sector also contributed. A total of 184 sites were recruited.

Sites submitted data either as individual hospitals or trusts, therefore the number of sites exceeds the number of eligible trusts. The number of eligible sites could not be estimated because whether data is submitted as a hospital or a Trust varies from audit to audit.

Organisational Data

168 sites submitted organisational data. Where 'n' is less than 168, this is because a response to the question was not provided.

Sites were asked which systems they used to assist in the bedside checking process.

1. Does your site have an electronic system to match the patient's identification against the blood component at the bedside?	**n=168**	**%**
Yes	61	36.3
No	107	63.7

2. If Yes, which system is this?	**n=59**	**%**
Haemonetics Blood Track	35	59.3
Meditech - Transfusion Administration Record (TAR)	3	5.1
Microsoft blood 360	10	16.9
Other*	11	18.6

*Other includes all systems only listed at a single site

3. Does your site have a bedside checklist for pre-transfusion checks?	**n=168**	**%**
Yes, as part of electronic system	67	39.9
Yes, on paper	89	53.0
No	12	7.1

4 -Is completion of the checklist mandatory?	**n=154**	**%**
Yes	134	87.0
No	20	13.0

5 -Does your site policy require a two-person check of a blood component prior to administration?	**n=168**	**%**
Yes	113	67.3
No	55	32.7

6 -If yes, which best describes the policy:	**n=102**	**%**
Policy states that two people should carry out checks and this can be done together	11	10.8
Policy specifies that two people should carry out all checks completely independently	72	70.6
Other (please state)*	19	18.6

*Included a two-person check, without stating whether this was independent or together (4), one-person check with optional second checker (5), one-person check with an electronic device but two-person if electronic system unavailable (8), two-person independent check apart from certain settings (theatres) (1), and a two-person check together, but with independent verification of all details (1).

Observational Audit Data

166 sites submitted data on 2918 transfusions to the observational audit.

DEMOGRAPHICS

Is this patient:

A1	n=2909	%
In-patient	2058	70.7
Day case	851	29.3

A2	n=2906	%
An adult? (18 years and over)	2650	91.2
A child? (1 year to 18 years)	190	6.5
A neonate or infant? (Less than one year old)	66	2.3

BEDSIDE CHECKS

1 – Type of Checks

B1. Was a one or two person check carried out for this blood component?	**n=2913**	**%**
A one-person check	377	12.9
A one-person check, with an electronic device as a second check	633	21.7
A two-person **independent** check	931	32.0
A two-person **dependent** check	833	28.6
Other (please state)	139	4.8

Freetext analysis of 'other'

Freetext responses were reviewed and given an appropriate code. Where this was coded as ***two person***, this includes any response where more than a single person was indicated.

Code	**n=137**	**%**
Two or more-person check (unspecified)	41	29.9
A two or more-person check (unspecified), with an electronic device as a second check	95	69.3
Unknown	1	0.7

In total 728/2913 (25.0%) of transfusions were performed using the support of an electronic device for bedside checks.

B2. Was a pre-transfusion bedside checklist used to carry out the checks for this blood component?	**n=2898**	**%**
Yes	2487	85.8
No	411	14.2

B3. If yes, was this checklist done using an electronic system?	**n=2440**	**%**
Yes	1177	48.2
No	1263	51.8

Note this includes checklists in electronic format, not necessarily employing an electronic device for patient identification.

2 - Patient Identification

B4. Is the patient wearing a form of identification?	n=2907	%	2011
Yes	2808	96.6	97.7%
No	99	3.4	

B5. If yes, what form of identification?	n=2773	%
Identification (ID) band	2763	99.6
Other (please state)	10	0.4

B6. Does the patient identification contain the patient's:	Yes	No	% Yes	2011
a. Last name?	2787	3	99.9	99.9%
b. First name?	2789	3	99.9	99.8%
c. Date of birth?	2785	4	99.9	99.8%
d. Unique patient identification number (e.g. NHS number)	2789	4	99.9	99.5%

B7. If you ticked 'no' to questions B6a-d why was the information missing?

Only a very small number of sites indicated that information was missing from the patient identification. As such here were insufficient responses to this question to allow any analysis.

B8. If no form of identification is in place, identify the reason why:	n=96	%	2011
Don't know	5	5.2	13%
Not put on by staff	22	22.9	42%
Taken off by patient and not replaced	7	7.3	6%
Taken off by staff and not replaced	3	3.1	13%
Carried by patient but not worn for transfusion	7	7.3	2%
Other	52	54.2	25%

Freetext analysis of 'Other':

CODE	n=52	%
Patient photo ID on patient EPR system	10	18.9
Patient declined	7	13.2
Baby/neonate	8	15.1
Wristband too tight	1	1.9
Unknown	27	50.9

3 - Bedside Checks

N is greater than the total number of transfusions as some checks are two-person checks. Where a two-person independent check was performed, each checker has been audited separately.

	Yes	No	% Yes
B9. Were the pre-transfusion administration checks conducted at the patient's bedside	3758	137	96.5

Relevant comments on why checks were not done at the bedside:

- Individual patient factors: specific care plan/risk assessment for transfusion in place, e.g. for a patient with learning difficulties and anxiety
- Environmental factors: room used for checks was quieter, cleaner, more space available
- Staffing factors: second member of staff not able to leave other tasks to come to the bedside

B10. Before beginning transfusion:

	Yes	No	% Yes
a. Did the member(s) of staff responsible for the pre-transfusion bedside checks ask the patient to state their full name and date of birth?	3193	241	93.0
Did the member of staff confirm:			
b. The patient's details stated verbally (full name, date of birth) match the information on the patient's identification (e.g. wristband)	3280	140	95.9
c. The patient's details match the information on the prescription/authorisation	3824	83	97.9
d. The patient's details match the information on the blood component compatibility label	3870	36	99.1
e. The correct type of component is being transfused	3846	61	98.4
f. The blood group of the component is appropriate for the patient's blood group	3774	138	96.5
g. The component is within its expiry date and time	3832	71	98.2
h. If the prescription/authorisation indicates any specific requirements, the component matches those requirements	1444	115	92.6
i. The unique component donation number is the same as on the compatibility label	3832	62	98.4
j. The blood group on the component is the same as on the component compatibility label	3793	108	97.2
k. Did they perform a visual inspection of the component?	3461	449	88.5

How results vary with method of check (independent/one or two person etc.)

Check method	A one-person check	A one-person check; with an electronic device	A two-person independent check	A two-person dependent check	Independent - did EITHER person check*
Number of checks	377	633	1862	833	931
B9. Were the pre-transfusion administration checks conducted at the patient's bedside	95.1%	98.9%	97.6%	93.0%	98.6%
a. Did the member(s) of staff responsible for the pre-transfusion bedside checks ask the patient to state their full name and date of birth?	93.3%	90.7%	95.2%	92.3%	98.6%
b. The patient's details stated verbally (full name, date of birth) match the information on the patient's identification (e.g. wristband)	95.4%	93.4%	97.7%	96.0%	99.4%
c. The patient's details match the information on the prescription/authorisation	96.8%	94.5%	99.0%	98.7%	99.4%
d. The patient's details match the information on the blood component compatibility label	98.1%	98.9%	99.3%	99.4%	99.6%
e. The correct type of component is being transfused	98.9%	95.2%	99.4%	99.0%	99.9%
f. The blood group of the component is appropriate for the patient's blood group	93.6%	92.6%	98.6%	96.0%	99.2%
g. The component is within its expiry date and time	98.1%	96.2%	98.9%	99.0%	99.7%
h. If the prescription/authorisation indicates any specific requirements, the component matches those requirements	94.2%	89.8%	94.4%	91.1%	95.8%
i. The unique component donation number is the same as on the compatibility label	96.8%	96.2%	99.1%	99.4%	99.7%
j. The blood group on the component is the same as on the component compatibility label	96.0%	92.1%	98.9%	98.7%	99.5%
k. Did they perform a visual inspection of the component?	93.9%	81.5%	92.3%	84.3%	94.5%

***EITHER column:** This column is based on the percentage of transfusions with independent two-person checking where at least one staff member performed a particular check.

Sites With and Without Electronic Systems to Support Bedside Checks

B10. Before beginning transfusion:

	Systems used to support checks*	Systems NOT used to support checks*
a. Did the member(s) of staff responsible for the pre-transfusion bedside checks ask the patient to state their full name and date of birth?	89.1% (606/680)	93.9% (2587/2754)
b. The patient's details stated verbally (full name, date of birth) match the information on the patient's identification (e.g. wristband)	92.5% (626/677)	96.8% (2654/2743)
c. The patient's details match the information on the prescription/authorisation	95.4% (752/788)	98.5% (3072/3119)
d. The patient's details match the information on the blood component compatibility label	99.1% (775/782)	99.1% (3095/3124)
e. The correct type of component is being transfused	95.9% (753/785)	99.1% (3093/3122)
f. The blood group of the component is appropriate for the patient's blood group	93.5% (737/788)	97.2% (3037/3124)
g. The component is within its expiry date and time	96.2% (754/784)	98.7% (3078/3119)
h. If the prescription/authorisation indicates any specific requirements, the component matches those requirements	89.7% (280/312)	93.3% (1164/1247)
i. The unique component donation number is the same as on the compatibility label	96.8% (760/785)	98.8% (3072/3109)
j. The blood group on the component is the same as on the component compatibility label	92.9% (729/785)	98.3% (3064/3116)
k. Did they perform a visual inspection of the component?	82% (646/788)	90.2% (2815/3122)

*based on question B1, response **A one-person check; with an electronic device as a second check** indicates the system was used. Records where freetext response for B1 Other indicates an electronic device was used were also included in this category. This includes some transfusions where a two-person independent check was supported with an electronic device (so both human checkers were evaluated).

	Yes	No	% Yes
B11. Was the unit administered by the healthcare professional who completed the final check?	2790	89	96.9%
B12. Following the successful completion of pre-transfusion checks, was the transfusion started immediately?	2811	82	97.2%
B13. Was the checking process interrupted (such as by leaving the bedside)?	210	2690	7.2%
B14. If yes, was the entire checking process restarted?	96	100	49.0%

B14a. If yes to B13, what was the nature of the interruption?

Code	n=186	%
Staff member left to find equipment etc	53	28.5
Other staff interrupted	28	15.1
Check completed across different areas	13	7.0
Printing wristband	13	7.0
Patient needed toilet	13	7.0
Cannula replaced/re-sited	5	2.7
Auditor intervened	5	2.7
Other	55	29.6
Unknown	1	0.5

Freetext responses were reviewed and given an appropriate code. Not all interruptions were documented as freetext.

B15. If any of the pre-transfusion checks did not match, was the checking and administration process stopped whilst the situation was resolved? If not, did the auditor have to intervene?	n=2862	%
Yes (stopped awaiting resolution)	29	1.0
No (auditor intervened)	50	1.7
Not applicable – all checks matched	2783	97.2

B16. Ask each member of staff responsible for the pre-transfusion checks:

a. When did you last receive training in blood transfusion?	n=4670	%	2011
Within the last year	2671	57.2	67%
Within the last 3 years	1755	37.6	27%
Never had training	39	0.8	1%
Don't know	205	4.4	5%

b. Have you had a competency assessment in blood administration?	n=4661	%
Yes	4036	86.6
No	448	9.6
Don't know	177	3.8

PATIENT MONITORING

Pre-transfusion observations

C4. Were pre-transfusion observations recorded within the 60 minutes before the transfusion start time?	n=2885	%	2011
Pulse	2769	96.0	93%
Blood pressure	2761	95.7	93%
Temperature	2752	95.4	93%
Respiratory rate	2739	94.9	85%

After the start of the current transfusion

C5. How long after the transfusion started were repeat observations recorded? n=2878	*At 15 minutes*	Within 30 minutes	After 30 minutes	Not recorded
Pulse	*1263 (43.9%)*	2590 (90%)	197 (6.8%)	76 (2.6%)
Blood pressure	*1260 (43.8%)*	2586 (89.9%)	197 (6.8%)	86 (3%)
Temperature	*1262 (43.8%)*	2583 (89.7%)	194 (6.7%)	92 (3.2%)
Respiratory rate	*1262 (43.8%)*	2586 (89.9%)	197 (6.8%)	90 (3.1%)

For the 2011 cycle of data collection, compliance with guidelines was taken to be completion of repeat observations within 15-30 minutes. There was little change in these figures: in 2011 73% of observations were done within 15-30 minutes compared to 76% in 2024 (14% were performed within the first 15 minutes).

Following the transfusion episode

D1. Were post-transfusion observations recorded within the 60 minutes after the transfusion finish time?	n=2850	%	2011
Pulse	2554	89.6	85%
Blood pressure	2548	89.4	85%
Temperature	2531	88.8	85%
Respiratory rate	2537	89.0	Not asked

Further Comments

The freetext comments were reviewed and a thematic analysis performed, to summarise common reasons for deviation from correct practice.

Theme: Knowledge gaps

Code	Examples
Two-person independent check	“Nurses were not clear about the 2 person independent checks when asked. They did seem to have heard the phrase but could not explain it” “Misunderstanding of the concept of independent checking”
PPID	“Nurse read patient's details to patient” “Staff introduced themselves to patient and said 'Patient X'; we are now going to set up your transfusion. Although details on wristband was checked; no direct input from patient”
Correct procedure	“Spiked the bag and primed the giving set prior to any bedside checks being carried out” “The unit was put up and connected to the patient's IV access before the bedside checks took place. The user's competency in transfusion administration had expired.” “Tags presigned in treatment room; informed that they shouldn't sign until the unit was connected and flowing”

Theme: Checklist

Code	Examples
Poor accessibility of checklist	“Checklist not used as prompt. Nurse explained she was aware it was there but doesn't have the checklist page open as she would need to keep turning back to the patient ID and written instructions on the front page” “Electronic system checklist filled in after the blood was started. Nothing to support checklist at the bedside.”
Use as tick-box exercise	“Bedside checklist was completed after the start of transfusion” “Nurse asked the patient to verbalise DOB and that was the only ID check that she performed during the whole process. Nurse did not tell me about checking anything else and seemed like she just 'ticked the boxes'.” “They did not refer to the electronic checklist - the person just ticked the boxes without reading the items on the page”

Theme: Staffing

Code	Examples
Skill mix	“When blood arrived on ward it became evident that there were no competency assessed staff on the ward to administer the transfusion”
Agency staff	“Blood transfusion administered to a patient by agency nurse using another member of staff's barcode” “Agency Midwife was not very familiar with Trust policy but claims she has had her competency and training in another hospital”

Code	Examples
Busy wards/ staff shortage	“Nurse lone working on ward - had to go to adjacent ward to find another nurse to check” “Short staffing in the ward that is why the observations were checked more than 30 minutes from the start of transfusion.” “This patient was TACO risk - asked if patient was to have 30 min obs after the start obs. They don't do as they don't have the capacity.” “One of the nurses was distracted by another colleague who was asking questions around transport.” “Admitted she checked unit against prescription with senior nurse at nurses station. Senior nurse had been unable to go to patient bedside as she had an emergency involving issue of a controlled drug.”

Theme: Electronic systems

Code	Examples
Poorly configured system	“Staff unable to use bedside electronic system at the patient’s bedside” “Electronic prescriptions viewed on PC monitors are much harder to incorporate into bedside checks than a piece of A4 paper”
Over-reliance on device	“The primary checks were not completed manually prior to the PDA being used” “Confused about how they check blood as normally check it with Blood360 but IT was down & they were unable to log in” “Nurse did not realise the manual checks need to be completed in addition to the PDA check”
Misuse of system	“Patient is regularly transfused so the nurse didn't attach a wristband to the patient; however had one stuck to clinical notes to scan it for the use of the electronic device checker” “Facilitated discussion about importance of not using the electronic system to scan an ID band in the treatment room to complete electronic bedside checks before taking component to the patient”

Theme: Assumptions

Code	Examples
Knowing patient	“Members of staff were familiar with the patient and did not feel they needed to ask” “The nurse stated she had cared for the patient a lot that shift and knew it was the correct patient”
Task performed by others	“Staff member was not aware that they should give the unit a visual check as they trust the lab” “I had to remind nurse to check the pre transfusion observations which had not been done. As it was not her ward she "assumed" they had.”

Theme: Physical environment and equipment

Code	Examples
Space	“Space around the patient chair and lack of table space given as reason why unit checks are done away from the patient bedside” “Patient in a small room outside/away from main day unit (not usual practice) as no chair/beds available”
Disruptions	“TV in patient room volume ++++ and patient difficult to hear” “The blood group checks and documentation checks were all done in a quiet clean utility room where there were no distractions” “The nurse did some of the pretransfusion checks in the clinic room before going to the patient's side. The bay had a confused patient in there and they were shouting and it was very difficult to concentrate”
Availability of equipment	“ID printer not working because the ward moved 2 weeks ago to a new department.” “There were no Computers On Wheels (COWs) to take to the bedside.”
Outpatient setting	“Different electronic system used to in-patient areas. No electronic or paper check list in use in this area.” “it was noted that this outpatient department do not use patient wristbands at all. The explanation for this was a lack of clerical support to print wristbands; and all patients receiving treatment are of sound mind when referred for transfusion.” “Nurse reports usual practice not to apply wristband to patients on regular dialysis” “Respiration rate not recorded as it is not on the dialysis form”

Theme: Individual patient challenges

Code	Examples
Language barrier	“The patient was never asked to confirm their name and date of birth because of the patient's language barrier. However the patient's son and another relative were present who could have translated for the patient to confirm their details”
Patient behaviour	“The patient is a regular transfusion patient and believes the nurses know him so he doesn't keep his wristband on” “The patient is a regular and he did not want to wait for the nurse to do his final observations”
Co-morbidities/ difficult circumstances	“Child will only speak to certain members of staff due to his autism.” “Cardiac theatre; bleeding patient. Theatre staff often use 'loose' wristbands to check the blood against as difficult to access patient while on the operating table/under drapes” “Some children do not want to see the bag so staff like to do the checks beforehand” “Patient was bleeding- room was cramped with lots of staff. The bedside checklist was completed outside the room.”
Time pressures	“Staff explained the reason for not checking was that the patient had been waiting for long for the blood transfusion” “Post transfusion observations missed as patient was hurried for discharge home”

A number of examples of good practice were also highlighted by auditors:

- Observations built into an integrated care pathway which is used with each transfusion episode, improving compliance
- Use of an interpreter to check patient ID when there was a language barrier
- Use of the NHS Blood Assist App to confirm the blood group of the unit was compatible with the patient
- Empowering a patient to be actively involved in their ID check
- Staff strictly following all the protocols in administering blood to the patient even though there was cardiac arrest in the same bay of the ward
- Transfusion practitioners taking the opportunity to sign off competencies in real time
- A number of staff on the ward listening in to opportunistic education following the audit (about the nature of a two-person independent check)
- As an action resulting from the audit, new 'Superusers' were trained in the ward to update staff and provide cascade training for the electronic system.

Audit Standards

Criterion	Compliance
1. A patient having a blood transfusion is wearing an identification band (or risk assessed equivalent).	96.6% (2808/2907)
2. The patient's identification contains the patient's last name, first name, date of birth and unique patient identification number.*	97.2% (2729/2808)
3. The patient's identity is checked prior to transfusion by asking the patient to state their full name and date of birth and checking these against the form of identification (such as wristband).	ID stated: 93% (3193/3434), ID Checked: 95.9% (3280/3420)
4. The identity details on the identification are checked with the compatibility label attached to the blood component and the prescription/authorisation.	Compatibility label: 99.1% (3870/3906), Prescription/authorisation: 97.9% (3824/3907)
5. The blood component compatibility label and prescription/authorisation are checked to ensure that the type of blood component authorised is the same as the type of component received.	98.4% (3846/3907)
6. The component pack label and written authorisation are checked to ensure that any additional requirements have been met	92.6% (1444/1559)
7. The unique component donation number and the blood group on the component pack label are checked and confirmed to be the same as on the laboratory-generated label attached to the blood component.	Donation no: 98.4% (3832/3894), Blood Group: 97.2% (3793/3901)
8. The component blood group is checked and confirmed to be appropriate for the patient blood group.	96.5% (3774/3912)
9. The expiry date of the component is checked and confirmed to be within date and time.	98.2% (3832/3903)
10. The component pack is visually inspected for signs of leakage, damaged packing or other defects.	88.5% (3461/3910)
11. The final administration checks are conducted next to the patient's bedside and undertaken by the healthcare professional who is going to administer the component.	At bedside: 96.5% (3758/3895), Final checker administers: 96.9% (2790/2879)
12. On successful completion of checks, the transfusion should be started immediately.	97.2% (2811/2893)
13. If the checking process is interrupted, the entire process must be restarted.	49% (96/196)
14. Pulse, blood pressure, temperature and respiratory rate** are measured before a unit of blood is transfused.	93.8% (2707/2885)
15. Pulse, blood pressure, temperature and respiratory rate** are measured at 15 minutes*** after the transfusion starts.	At 15 mins: 43% (1238/2878), Within 30 mins: 88.3% (2541/2878)
16. Pulse, blood pressure, temperature and respiratory rate** are measured at the end of each transfused unit.	87.6% (2496/2850)
17. Blood components must only be administered by a trained, competency assessed Healthcare professional.****	Trained: 99.1% (4426/4465), Competency Assessed: 90% (4036/4484)

** For compliance, **all four** identifiers must be present.*

***For compliance, **all four** measurements must be taken.*

****Although stated in BSH guidelines, it is unfeasible for all observations to be done exactly on 15 minutes. We have given the percentage measured at 15 minutes but for this standard we have supposed that the check should be done within **30 minutes** after transfusion starts.*

*****Figures do not include "Don't know" responses*

DISCUSSION

This national audit has provided a snapshot of bedside transfusion practice across the UK, covering transfusions given in both in-patient and outpatient settings, to adults, children and neonates. The design gave a valuable opportunity to evaluate work as done, as opposed to work as imagined, and provided local transfusion teams an opportunity to give feedback and address issues in real time. The percentage compliance with most aspects of the checking process was high, and practice can be seen as generally safe. However, a number of areas for improvement were identified.

Facilitating bedside transfusion checks

Despite the 2017 CAS alert, 7.1% (12/168) of sites stated they did not have a bedside transfusion checklist, and 13.0% of sites with a checklist had not made it mandatory. In this audit, a checklist was not used in 14.2% of transfusions. Checklists were not always in a usable format and transfusion teams should consider how to make them accessible and convenient for use by the bedside. 3.5% (137/3895) of checks were not carried out at the bedside, often due to environmental factors such as available space, noise and distractions in the ward, or busy staff not able to leave their other tasks. The perceived advantages of distant checks need to be balanced against the risk of then taking the component to the wrong patient, and patient ID checks at the bedside remain absolutely essential.

Positive patient identification

Correct positive patient identification (PPID) is fundamental to all interactions in healthcare. This must be done by asking the patient to actively state their name and date of birth. This avoids errors that might arise if a patient is asked to confirm details provided to them. Mishearing, communication barriers or poor attention or concentration may all occur in an unwell patient in a clinical environment. PPID also provides an opportunity to engage a patient and encourage them to play an active part in the safety checks, where possible. It is concerning that in 7.0% of interactions in this audit, PPID was not performed correctly (cases where patients were unable to respond were excluded), and in a further 4.1% of cases there was no check that the patient's stated details matched their ID band. Some staff lacked understanding about how to correctly check ID, and some made assumptions, particularly where patients were well-known to them. In addition, 99 patients (3.4%) were not wearing an ID band. In 65 cases, there was no valid reason why this was not applied. Some auditors found outpatient, day case and renal dialysis units with a culture of not using ID bands. This puts patients at risk of receiving an incorrect component, or even a transfusion they did not need at all.

This audit provides a snapshot related to transfusion, but it is likely that the same suboptimal PPID practice is occurring in other patient interactions. This can result in patients being given incorrect or irrelevant information, undergoing unnecessary tests or examinations, or receiving medication or other treatments they did not require. These incidents are not collected or collated in a way to readily allow trending nationally, but a recent analysis has found over 10,000 misidentification incidents reported annually over the last 5 years[7] and a National learning report has issued recommendations for reducing the risk.[8]

Knowledge and training

The staff being audited were aware they were being observed by a member of the transfusion team, so they would be expected to perform all checks with particular diligence. Any errors or omissions in the process are therefore likely to reflect genuine gaps in knowledge or understanding, rather than cutting corners, as might occur under the pressures

of everyday practice. It is notable from the auditors' observations that there was often confusion about the meaning of a two-person independent check, and the rationale for this. This genuine misunderstanding, rather than poor practice, accounts for much of the failure of two-person independent checking in line with local policy. The most common checks to be missed were ensuring that the components met the patient's requirements (7.4%), that the group was appropriate for the patient (3.5%) and performing a visual inspection of the unit (11.5%). There can be an assumption that these are the responsibility of the laboratory, and reliance that the unit issued from the laboratory would be safe for the patient.

94.8% of individuals in this audit reported having received training in transfusion administration within the last 3 years, but it is concerning that 39 (0.8%) had never had training and a further 205 (4.4%) were unsure. 86.6% stated they had been competency assessed, though to note, competency assessment is not mandatory in Scotland, and some long-standing staff may not recall assessments performed at the start of their career. While percentages are high, training does not necessarily equate to learning. Statutory and mandatory training is not always inspiring, digestible or memorable. Sites would be encouraged to review the content and delivery of their mandatory training, to ensure that the most important points are emphasised, in particular the reason *why* specific steps are required. Transfusion teams may need to be more creative about providing additional exercises or reminders in the years between renewal of mandatory training, for example via bite sized messages using a wider range of media. Disseminating the key findings of this audit so they reach those actually performing this task, for example via nursing huddles, could help address knowledge gaps. Sites can also respond to particular learning needs identified in their own local findings.

Checking process

7.8% (210/2690) of transfusions audited faced some sort of interruption during the bedside checks. Some of this reflects the busy hospital environment, where pressures on staff mean they are frequently multi-tasking – particularly when called away to participate in second checks for transfusion. However, over half of interruptions were due to staff not being fully prepared to start the transfusion at the start of the checking process. Reasons included not having all the required equipment to hand or the patient not having an ID band or cannula or needing the toilet. These would be preventable with more careful planning – blood should not be requested unless transfusion is ready to start. Fewer than half of checks were restarted from the beginning after an interruption. It is acknowledged that the additional time required to restart checks is also time taken from attending to other patients, and there may be leeway to exercise some clinical judgement. However, staff must take a safety-first approach, and checks should be restarted if either staff or the unit have left the patient's side.

BSH guidelines do not require pre-transfusion checks to be performed by two people but recommend that if local policy requires a two-person checking procedure, each person should complete all the checks independently.[1] 67.3% of sites reported having a policy requiring a two-person check, and while 70.6% of these specified that checks had to independent, 10.8% allowed dependent checking. Of the two-person checks observed in this audit, 47.2% (833/1764) were carried out together, and auditor comments frequently reported a lack of understanding from staff about what was meant by an independent check. Normal nursing practice, for example before administering medication or fluids, is to perform checks together, so requiring a different process for transfusion could be a source of confusion. When considering a policy for transfusion checks, it is important to consider skill mix and staff numbers, as both individuals must be transfusion-trained. This might be difficult to achieve in some clinical areas, or risk delays to blood administration. Pressure faced by

staff trying to attend to other tasks was one reason identified for performing pre-transfusion checks away from the patient's bedside.

Part of the rationale for a two-person independent process is that it increases the chance that one staff member will perform any given check, so that between them they will cover all steps. Data from this audit seem to support this – with combined compliance from either checker consistently higher than for a single checker, typically 98-99% compared to 94-98%. Where two people check together, compliance with performing each individual step (with the exception of visual inspection of the component) was slightly higher than for one person, as a colleague can prompt if any check has been omitted. There is, however, a risk of conformity bias or complacency bias, where an error made by one checker is also overlooked by the other.

Haemovigiliance data do not suggest that a two-person checking process is safer than one. Of ten ABO incompatible transfusions reported to Serious Hazards of Transfusion (SHOT) in 2023, seven occurred despite a two-person check, four of which had been performed independently.[9] Working through a checklist does not necessarily mean that the required details have been scrutinised. It is important to ensure a strong emphasis on professional accountability, so staff complete checks correctly, rather than using the checklist as a tick box exercise. This must be supported by high quality training that explains why checks are required, not just how to do them.

Electronic systems

In this audit, 36.3% of sites reported having an electronic system to support bedside transfusion checks and a device was employed in 25.0% of transfusions observed. These systems can help safeguard against both bedside and laboratory errors, by flagging discrepancies between the unit issued and the requirements on the LIMS for the patient whose ID band has been scanned. The device is intended as an electronic second-checker, with the member of staff acting as the first check. One selling point is that they remove the need for a two-person check, freeing up staff for other tasks. In 13.0% of cases where a device was used, more than one staff member also performed the check, suggesting that the full benefits are not being realised. Some auditors commented that the systems were newly introduced and two-person checks would be retained until embedded. However, sites should ensure their policies are updated in this regard.

A potential pitfall of electronic systems is that users become over-reliant on the technology, termed "automation bias". A human check is still essential, particularly for those aspects the device cannot check – that the patient is wearing the correct wristband, the unit has no leaks or clots, and that the unit corresponds to the prescription (including any special requirements). It is concerning that in all steps of the bedside check, compliance was lower when a device was employed than with purely human checks. This means a patient could be at risk of receiving an incorrect component if the wrong ID band has been applied, or if special requirements have not been registered on the LIMS. Staff training must emphasise these risks, and the ongoing importance of those core checks. Misuse of the electronic devices was also witnessed, including scanning an ID band not attached to the patient and using the device as a primary check, rather than confirmation of initial human checks. Transfusion teams should continue to review how these systems are used in practice, and to identify workarounds which can erode the safety benefits.

Clinical observations

Recording of clinical observations before, during and after transfusion is intended to allow early detection of an adverse reaction.[10] In 6.2% of cases there was not a complete set of

baseline observations, which means there is no means of judging whether there has been a change in vital signs, and to what extent. This is essential for clinical assessment of a potential reaction. Although BSH guidelines recommend observations 15 minutes after transfusion commences,[1] attending to a patient at this precise time is unlikely to be achievable in a busy clinical environment, nor is this clinically justified. Only 43% of transfusion episodes here met that exacting standard. In this audit, we considered a repeat set of observations within 30 minutes to be compliant, though 11.7% of transfusions failed to meet this, and in 3% of cases no observations were recorded at all during transfusion. Staffing pressures were often cited as a reason for this. 12.4% of patients did not have observations within an hour of completing transfusion. Many auditors mentioned that electronic systems did not record the end time of transfusion, so they were not always able to assess the timing of post-transfusion observations. It was also noted that observations were often measured but only inputted to electronic records later, so accurate timings were not available. Post-transfusion observations could also be a challenge in an outpatient setting, where there was a pressure to discharge patients (or patients themselves wanted to leave) as soon as transfusion finishes. Reactions, particularly pulmonary complications such as transfusion associated circulatory overload (TACO), can occur after completion of transfusion, and it is important that both staff and patients are aware and vigilant for any symptoms developing later.[10]

Audit method

Clinical audit is often perceived as a data checking exercise, with retrospective data collection used as a quick, easy way to collect and submit large amounts of data. This clinical audit has been conducted using a prospective approach which is much more labour intensive and required the National Comparative Audit team to offer additional support and training. However, this methodology has allowed staff to gather more information about the causes of non-compliance and to immediately intervene and address any issues which might affect patient safety. This focus on observational audit did not include documentation, so we did not assess what was been recorded in patient notes. Proper documentation is also important for safe and appropriate patient care, and this should be considered when designing future cycles of this audit. A limitation of this method of audit is that transfusions performed out-of-hours are unlikely to have been assessed and emergency settings (particularly in operating theatres or the emergency department) were less commonly included. These are potentially higher risk transfusions, for example performed in high-pressure situations, with lower staffing levels, or with patients less able to identify themselves. Local teams should consider how they might audit transfusion in those settings. It is also important that the findings from this audit are disseminated to all staff involved in transfusion.

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APPENDIX ONE – USEFUL RESOURCES

SHOT Safe transfusion checklist

https://www.shotuk.org/wp-content/uploads/myimages/Safe-Transfusion-Practice-Transfusion-Checklist-July-2020.pdf

SHOT Using information technology for safe transfusion

https://www.shotuk.org/wp-content/uploads/myimages/SHOT_Using-Information-Technology-for-Safe-Transfusion-1.pdf

National Comparative Audit
of Blood Transfusion

NHS
Blood and Transplant

Please read the guidance notes before completing this form

National Comparative Audit of Bedside Transfusion Practice 2024 (Re-audit)

Patient Audit Form

Patient Number

Site Code

Use this page to make any notes you may need to make. Any information on this sheet will not be used by the audit.

SECTION A - Demographics

A1. Is this patient:

An in-patient? ☐
A day case? ☐

A2. Is this patient:

An adult? (18 years and over) ☐
A child? (1 year to 18 years) ☐
A neonate or infant? (Less than one year old) ☐

SECTION B – Bedside checks – To be completed whilst the checks for the blood component you are auditing are in progress

B1. Was a one or two person check carried out for this blood component?

A one-person check ☐
A one-person check, with an electronic device as a second check ☐
A two-person **independent** check ☐
A two-person **dependent** check ☐
Other (please state) ☐

If a one-person or two-person dependent check, for the following questions where applicable complete the 'Person 1' columns only. If a two-person independent check, complete both 'Person 1' and 'Person 2' columns.

	Yes	No
B2. Was a pre-transfusion bedside checklist used to carry out the checks for this blood component?	☐	☐
B3. If yes, was this checklist done using an electronic system?	☐	☐
B4. Is the patient wearing a form of identification?	☐	☐

B5. If yes, what form of identification?

Identification (ID) band ☐
Other (please state) ☐

B6. Does the patient identification contain the patient's:	Yes	No
a. Last name?	☐	☐
b. First name?	☐	☐
c. Date of birth?	☐	☐
d. Unique patient identification number (e.g. NHS number)	☐	☐

B7. If you ticked 'no' to questions B6a-d why was the information missing?

Only complete this question if you answered no to question B4

B8. If no form of identification is in place, identify the reason why:

(Tick one option)

- Don't know ☐
- Not put on by staff ☐
- Taken off by patient and not replaced ☐
- Taken off by staff and not replaced ☐
- Carried by patient but not worn for transfusion ☐
- Other ☐

If other, please state:

	Person 1		Person 2	
	Yes	No	Yes	No
B9. Were the pre-transfusion administration checks conducted at the patient's bedside	☐	☐	☐	☐

B10. Before beginning transfusion:

	Person 1			Person 2		
	Yes	No	N/A	Yes	No	N/A
a. Did the member(s) of staff responsible for the pre-transfusion bedside checks ask the patient to state their full name and date of birth?	☐	☐	☐	☐	☐	☐
Did the member of staff confirm: **b. The patient's details stated verbally (full name, date of birth) match the information on the patient's identification (e.g. wristband)**	☐	☐	☐	☐	☐	☐
c. The patient's details match the information on the prescription/authorisation	☐	☐		☐	☐	
d. The patient's details match the information on the blood component compatibility label	☐	☐		☐	☐	
e. The correct type of component is being transfused	☐	☐		☐	☐	
f. The blood group of the component is appropriate for the patient's blood group	☐	☐		☐	☐	

	Person 1			Person 2		
	Yes	No	N/A	Yes	No	N/A
g. The component is within its expiry date and time	☐	☐		☐	☐	
h. If the prescription/authorisation indicates any specific requirements, the component matches those requirements	☐	☐	☐	☐	☐	☐
i. The unique component donation number is the same as on the compatibility label	☐	☐		☐	☐	
j. The blood group on the component is the same as on the component compatibility label	☐	☐		☐	☐	
k. Did they perform a visual inspection of the component?	☐	☐		☐	☐	

	Yes	No
B11. Was the unit administered by the healthcare professional who completed the final check?	☐	☐
B12. Following the successful completion of pre-transfusion checks, was the transfusion started immediately?	☐	☐
B13. Was the checking process interrupted (such as by leaving the bedside)?	☐	☐
B14. If yes, was the entire checking process restarted?	☐	☐

B14a. If yes to B13, what was the nature of the interruption?

B15. If any of the pre-transfusion checks did not match, was the checking and administration process stopped whilst the situation was resolved? If not, did the auditor have to intervene?

Yes (stopped awaiting resolution) ☐
No (auditor intervened) ☐
Not applicable – all checks matched ☐

B16. Ask each member of staff responsible for the pre-transfusion checks:

	Person 1				Person 2			
a. When did you last receive training in blood transfusion?	☐ Within the last year	☐ Within the last 3 years	☐ Never had training	☐ Don't know	☐ Within the last year	☐ Within the last 3 years	☐ Never had training	☐ Don't know

	Person 1			Person 2		
b. Have you had a competency assessment in blood administration?	☐ Yes	☐ No	☐ Don't know	☐ Yes	☐ No	☐ Don't know

SECTION C – Identification and monitoring

About the Audited Blood Component Unit

Questions C1, C2 and C3 are not required for audit purposes, but you may find it useful to record these data at this point to aid you in the completion of later questions if you need to return to complete the form.

C1. What is the date on which this unit is being transfused?

C2. What is the start time?

C3. Document the unique donation number of the component transfused

Pre-transfusion observations

C4. Were pre-transfusion observations recorded within the 60 minutes before the transfusion start time?

	Yes	No/not recorded
Pulse	☐	☐
Blood pressure	☐	☐
Temperature	☐	☐
Respiratory rate	☐	☐

After the start of the current transfusion

C5. How long after the transfusion started were repeat observations recorded?

	1 – 14 minutes	At 15 minutes	16 – 30 minutes	More than 30 minutes	Not recorded
Pulse	☐	☐	☐	☐	☐
Blood pressure	☐	☐	☐	☐	☐
Temperature	☐	☐	☐	☐	☐
Respiratory rate	☐	☐	☐	☐	☐

SECTION D – Complete following the transfusion episode

D1. Were post-transfusion observations recorded within the 60 minutes after the transfusion finish time?

	Yes	No/not recorded
Pulse	☐	☐
Blood pressure	☐	☐
Temperature	☐	☐
Respiratory rate	☐	☐

END

SECTION E – Further comments

Please use this page to record any further information you feel may provide clarification or any reasons for non-compliance – for example, if a check was not done what reason did the person checking the patient give?

Sitecode

National Comparative Audit of Bedside Transfusion Practice 2024 (Re-audit)

ORGANISATIONAL SURVEY

1 -Does your site have an electronic system to match the patient's identification against the blood component at the bedside?

☐ Yes
☐ No

2 -If Yes, which system is this?

Click or tap here to enter text.

3 -Does your site have a bedside checklist for pre-transfusion checks?

☐ Yes – on paper
☐ Yes – as part of an electronic system
☐ No

4 -Is completion of the checklist mandatory?

☐ Yes
☐ No

5 -Does your site policy require a two-person check of a blood component prior to administration?

☐ Yes
☐ No

6 -If yes, which best describes the policy:

☐ Policy states two people should check the component but does not give details about how

☐ Policy states that two people should carry out checks and this can be done together

☐ Policy specifies that two people should carry out all checks completely independently

☐ Other (please state)

6a -Other

Click or tap here to enter text.

7 -If you are happy to do so, please copy the relevant section from your policy below:

Click or tap here to enter text.

8 -If you have any other comments in relation to the audit of bedside transfusion, please feel free to use the space below to feed back to us.

Click or tap here to enter text.

APPENDIX THREE – LIST OF PARTICIPATING SITES

Addenbrooke's Hospital
Airedale NHS Foundation Trust
Alder Hey Children's NHS Foundation Trust
Altnagelvin Area Hospital
Aneurin Bevan University Health Board
Barnet Hospital
Barnsley Hospital NHS Foundation Trust
Basildon and Thurrock University Hospitals NHS Foundation Trust
Bedford Hospital
Belfast Health and Social Care Trust
Birmingham Children's Hospital
Birmingham Women's and Children's NHS Foundation Trust
Blackpool Teaching Hospitals NHS Foundation Trust
Bolton NHS Foundation Trust
Bradford Teaching Hospitals NHS Foundation Trust
Bristol Royal Infirmary
Bronglais General Hospital
Broomfield Hospital
Buckinghamshire Healthcare NHS Trust
Calderdale and Huddersfield NHS Foundation Trust
Charing Cross Hospital
Chelsea & Westminster Hospital
Chesterfield Royal Hospital NHS Foundation Trust
City Hospital Campus
City Hospitals Sunderland NHS Foundation Trust
Cleveland Clinic London
Colchester Hospital
Conquest Hospital
Croydon Health Services NHS Trust
Cumberland Infirmary Carlisle
Darlington Memorial Hospital
Dartford and Gravesham NHS Trust
Diana Princess of Wales Hospital
Doncaster and Bassetlaw Teaching Hospitals NHS Foundation Trust
Dorset County Hospital NHS Foundation Trust
East and North Hertfordshire NHS Trust
East Cheshire NHS Trust
Eastbourne Hospital
Epsom General Hospital
Frimley Park Hospital
Gateshead Health NHS Foundation Trust
George Eliot Hospital NHS Trust
Glan Clwyd Hospital
Glangwili General Hospital
Gloucestershire Hospitals NHS Foundation Trust
Great Ormond Street Hospital For Children NHS Foundation Trust
Great Western Hospitals NHS Foundation Trust
Guy's and St Thomas' NHS Foundation Trust
Hammersmith Hospital
Harrogate and District NHS Foundation Trust
Homerton University Hospital NHS Foundation Trust
Ipswich Hospital
Isle of Wight NHS Trust
James Paget University Hospitals NHS Foundation Trust
Kent & Canterbury Hospital
Kettering General Hospital NHS Foundation Trust
King's College Hospital
Kingston Hospital NHS Foundation Trust
Lincoln County Hospital
Liverpool Heart and Chest Hospital NHS Foundation Trust
Liverpool Women's NHS Foundation Trust
London North West University Healthcare NHS Trust
Luton and Dunstable University Hospital NHS Foundation Trust
Maidstone and Tunbridge Wells NHS Trust
Manchester University NHS Foundation Trust
Medway NHS Foundation Trust

Mid Cheshire Hospitals NHS Foundation Trust
Milton Keynes University Hospital NHS Foundation Trust
Morriston Hospital
Newham University Hospital
NHS Fife
NHS Lothian
Norfolk and Norwich University Hospitals NHS Foundation Trust
North Bristol NHS Trust
North Devon District Hospital
North Middlesex University Hospital NHS Trust
North Tees and Hartlepool NHS Foundation Trust
North West Anglia NHS Foundation Trust
Northampton General Hospital NHS Trust
Northern Care Alliance NHS Group
Northern General Hospital
Northumbria Healthcare NHS Foundation Trust
Oxford University Hospitals NHS Foundation Trust
Pilgrim Hospital
Poole Hospital NHS Foundation Trust
Portsmouth Hospitals NHS Trust
Prince Charles Hospital
Prince Philip Hospital
Princess of Wales Hospital Bridgend
Princess Royal University Hospital Farnborough
Queen Elizabeth Hospital Birmingham
Queen Elizabeth Hospital Greenwich
Queen Elizabeth The Queen Mother Hospital
Queen's Hospital Romford
Queen's Medical Centre
Royal Berkshire NHS Foundation Trust
Royal Brompton and Harefield NHS Foundation Trust
Royal Cornwall Hospitals NHS Trust
Royal Derby Hospital
Royal Devon University Healthcare NHS Foundation Trust
Royal Free Hospital
Royal Glamorgan Hospital
Royal Hallamshire Hospital
Royal Hampshire County Hospital
Royal Liverpool University Hospital
Royal Marsden Hospital Chelsea
Royal Marsden Hospital Sutton
Royal National Orthopaedic Hospital NHS Trust
Royal Papworth Hospital NHS Foundation Trust
Royal Preston Hospital
Royal Surrey County Hospital NHS Foundation Trust
Royal Sussex County Hospital
Royal United Hospitals Bath NHS Foundation Trust
Salisbury NHS Foundation Trust
Scarborough General Hospital
Scunthorpe General Hospital
Sheffield Children's NHS Foundation Trust
Sherwood Forest Hospitals NHS Foundation Trust
Singleton Hospital
Somerset NHS Foundation Trust
South Tees Hospitals NHS Foundation Trust
South Tyneside District Hospital
South Warwickshire NHS Foundation Trust
South West Acute Hospital Enniskillen
Southend University Hospital NHS Foundation Trust
Southport and Ormskirk Hospital NHS Trust
St. Bartholomew's Hospital
St. George's University Hospitals NHS Foundation Trust
St. Helens and Knowsley Teaching Hospitals NHS Trust
St. Helier Hospital
St. Mary's Hospital Paddington
St. Richard's Hospital
Stockport NHS Foundation Trust
Surrey and Sussex Healthcare NHS Trust
Tameside and Glossop Integrated Care NHS Foundation Trust
The Christie NHS Foundation Trust
The Dorothy House Hospice Care

The Dudley Group NHS Foundation Trust
The Hillingdon Hospitals NHS Foundation Trust
The Leeds Teaching Hospitals NHS Trust
The Mid Yorkshire Hospitals NHS Trust
The Newcastle upon Tyne Hospitals NHS Foundation Trust
The Pennine Acute Hospitals NHS Trust
The Princess Alexandra Hospital NHS Trust
The Queen Elizabeth Hospital Kings Lynn NHS Foundation Trust
The Rotherham NHS Foundation Trust
The Royal London Hospital
The Royal Orthopaedic Hospital NHS Foundation Trust
The Royal Wolverhampton NHS Trust
The Walton Centre NHS Foundation Trust
The York Hospital
Torbay and South Devon NHS Foundation Trust
University College London Hospitals NHS Foundation Trust
University Hospital Lewisham
University Hospital Llandough
University Hospital Monklands
University Hospital of North Durham
University Hospital of Wales
University Hospital Southampton NHS Foundation Trust
University Hospital Wishaw
University Hospitals Coventry and Warwickshire NHS Trust
University Hospitals of Leicester NHS Trust
University Hospitals of Morecambe Bay NHS Foundation Trust
University Hospitals of North Midlands NHS Trust
University Hospitals Plymouth NHS Trust
Velindre Cancer Centre
Walsall Healthcare NHS Trust
Warrington and Halton Hospitals NHS Foundation Trust
West Hertfordshire Hospitals NHS Trust
West Middlesex University Hospital
West Suffolk NHS Foundation Trust
Weston General Hospital
Wexham Park Hospital
Whipps Cross University Hospital
Whittington Health NHS Trust
William Harvey Hospital
Withybush General Hospital
Worcestershire Acute Hospitals NHS Trust
Worthing Hospital
Wrexham Maelor Hospital
Wrightington, Wigan and Leigh NHS Foundation Trust
Wye Valley NHS Trust
Yeovil District Hospital NHS Foundation Trust
Ysbyty Gwynedd