

Guidelines for Red Cell Transfusion in Adults Version 7

Document Type:	Guideline			
Central Index Number:	C0162			
Document Owner: (Name, job title and email)	Harriet Madiyiko, Blood Sciences Manager Harriet.madiyiko3@nhs.net			
Division:	Family and Integrated Support Services Division			
Directorate/CBU:	FISS - Pathology			
Scope (please select):	☒ Trust wide	☐ Specific staff group:		
Standards and Legislation and key related documents:	NICE Guideline 2015 - Blood Transfusion			
Specialty Meeting Approval:	Hospital Transfusion Committee	Date:	4 February 2026	
CBU Meeting Approval:	FISS - Pharmacy Management & Governance Committee	Date:	24 February 2026	
Additional Approval (if required):				
PSC - Tick ☐	D&TC - Tick ☐	TIPCC - Tick ☐	Safeguarding Committee - Tick ☐	ELD - Tick ☐
Enter date	Enter date	Enter date	Enter date	Enter date
First-Level Approval: (Divisional Leadership Board)	FISS Divisional Leadership Board		Date:	25 March 2026
Second Level Approval: (if required – please consult sect. 6.4 of the Trust Wide Document Control Policy)	N/A		Date:	Enter date
Review Date:	25 March 2029			
Target Audience:	Staff across all sites			
Trust Partnership Group Approval:	N/A		Date:	Enter date
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2.	Has there been any change in guidance or national policy since the previous version?	No	Please see question 4.	Please see question 3.
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4.	Can the document be approved at first-level only? (Please refer to section 6 of the Trust-wide Document Control Policy)	Yes	Proceed with review and first-level only approval processes.	Proceed with review and both first and second-level approval processes.

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Guidelines for Red Cell Transfusion in Adults

VERSION CONTROL SUMMARY

Version:	Page/Section of Document:	Description of change: (List all amendments made to the document. "Review" or "Update" is not sufficient information.)	Date Exec Director/Chair of DLB approval for RDRO:	Date approved:	Date published:
V1-2006		Original document	N/A	October 2006	October 2006
V2-2010		Planned review	N/A	January 2010	January 2010
V3-2014		Codes and Hb thresholds changed to reflect revised National Blood Transfusion Committee and British Committee for Standards in Haematology guidelines. Flowchart added re: transfusion of patients with severe sepsis, traumatic brain injury , and/or acute cerebral ischaemia	N/A	12/05/2014	June 2014
V4-2016		NICE guidelines on indication for transfusion added	N/A	12/07/2016	13/07/2016
V5-2019		Review and merging of PSHFT and HHCT documents into NWAFT document	N/A	10/10/2019	14/10/2019
V6-2023	5	Revised flowchart for management of anaemia in critically ill patients Addition of information on identification and management of perioperative anaemia	N/A	18/1/2023	25/1/2023
V7-2026		Updated with updated appendices: Appendix A (Transfusion decision tool), Appendix B (TACO risk assessment tool) and Appendix C (Red cell transfusion indication codes) updated to current versions. Incorporation of BloodTrack application use.	N/A	25/03/2026	30/03/2026

DOCUMENT CONTRIBUTORS

Please list the details of all who contributed to the development of this document.

Name	Job Title	Version Contributed to
Harriet Madiyiko	Blood Sciences Manager	Version 7

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1. INTRODUCTION

- 1.1 Blood transfusion is a key component of many medical and surgical interventions. However, it is a finite and expensive resource and serious adverse events have been reported. Transfusion of Blood and Blood components must only be undertaken if no alternative therapy is available.
- 1.2 The decision to transfuse should be based on clinical assessment of the patient, supported by the results of laboratory tests and informed by evidence-based guidelines.
- 1.3 Avoiding unnecessary and inappropriate transfusion is in the patient's best interests and will help to ensure that blood supplies are preserved to meet demand. All transfusion decisions must be made after carefully assessing the risks and benefits of transfusion therapy. The A-E Decision Tree published by Serious Hazards of Transfusion (SHOT 2024) in Appendix A may facilitate this decision-making process.
- 1.4 Transfusion management has been strongly influenced by the Transfusion Requirements In Critical Care (TRICC) study (Hebert et al 1999) which randomised patients to an Hb 'trigger' of 100 g/L (liberal) or 70 g/L (restrictive). This study found that a restrictive strategy of red-cell transfusion is at least as effective as, and possibly superior to, a liberal transfusion strategy in critically ill patients, with the possible exception of patients with acute myocardial infarction and unstable angina. Randomised trials in patients with gastrointestinal haemorrhage have also shown no advantages for a liberal transfusion policy (NICE 2012).
- 1.5 A higher transfusion threshold may be beneficial in patients with ischaemic stroke, traumatic brain injury with cerebral ischaemia, acute coronary syndrome (ACS) or in the early stages of severe sepsis.
- 1.6 The Serious Hazards of Transfusion (SHOT) report has demonstrated that transfusions at night are high risk (there are less staff available to identify and deal with any potential reaction, and observation of the patient is more complex during the night time period) and so should not be carried out between 8pm and 8am unless the patient is experiencing major bleeding, or major symptoms of anaemia.

2. PURPOSE

- 2.1 To provide guidance for clinicians when making a decision to prescribe donor red cell units, ensuring that donor blood is prescribed in a timely and evidence-based manner and that unnecessary exposure of patients to donor blood is avoided.

3. SCOPE

- 3.1 Any member of staff who is responsible for prescribing and/or administering red cell transfusions.

4. DEFINITIONS

- 4.1 **Red cell transfusion:** - Packed red cells in additive solution used to restore oxygen carrying capacity in patients with anaemia or blood loss where alternative treatments are ineffective or inappropriate.

5. INDICATIONS FOR USE OF RED CELLS

- 5.1 Red cells should be prescribed to increase the oxygen-carrying capacity in patients with acute or chronic severe anaemia, after other possible alternatives have been considered. The decision to prescribe a red cell transfusion is complex and should not be underestimated, and should form part of a holistic assessment, based on clinical assessment of the patient, supported by the results of laboratory tests and informed by evidence-based guidelines. Review blood results in the context of previous results as well as symptoms - often patients have been coping on a low Hb for several months, deferring transfusion for a short time to allow a controlled and appropriate transfusion is acceptable.
- 5.2 **Active Bleeding.** The urgency of transfusion and the number of units transfused should depend on the patients' general condition and the context of blood results. In cases of massive blood loss, the major haemorrhage protocol must be activated via switchboard (2222), please refer to the trust policy for Management of Major Haemorrhage for further advice.
- 5.3 **Anaemia** Transfusion may be required for patients who have symptomatic anaemia, and have a trigger Hb level as indicated in the NICE guidelines. Diagnosis of symptomatic anaemia should always be carried out in the context of presenting medical condition and past medical history, as the symptoms of anaemia could be mimicked by other conditions. Symptoms of anaemia include:
- Shortness of breath
 - Fast or irregular heartbeat
 - Hypotension/dizziness
 - Angina
 - Pallor/ fatigue/tiredness, although being pale and tired alone is not an indication for transfusion.

Patients should be investigated for the cause of their anaemia, if this is unknown.

Iron deficiency is the most widespread global deficiency (WHO 2016) and should be considered as a cause of anaemia. Haematinic replacement (either oral or intravenous iron) should be the first line treatment in patients with haematinic deficiency unless they

are otherwise compromised. If ferritin levels are normal, B12 and folate should be checked.

For guidance on the management of anaemia and red cell transfusion in adult critically ill patients please see APPENDIX D. A transfusion threshold of 70 g/l or below, with a target Hb range of 70–90 g/l, should be the default for all critically ill patients, unless specific co-morbidities or acute illness-related factors modify clinical decision-making. Transfusion triggers should not exceed 90 g/l in most critically ill patients.

The Centre for Perioperative Care has recently issued guidelines for management of anaemia in the perioperative pathway (APPENDIX E & F).

5.4 Transfusion thresholds NICE (2015) recommend the use of restrictive red blood cell transfusion thresholds for patients who need red blood cell transfusions and who do **not**:

- Have major haemorrhage.
- Have acute coronary syndrome.
- Need regular blood transfusions for chronic anaemia.

When using a restrictive red blood cell transfusion threshold, consider a threshold of 70 g/litre and a haemoglobin concentration target of 70–90 g/litre after transfusion

Consider a red blood cell transfusion threshold of 80 g/litre and a haemoglobin concentration target of 80–100 g/litre after transfusion for patients with acute coronary syndrome.

Consider setting individual thresholds and haemoglobin concentration targets for each patient who needs regular blood transfusions for chronic anaemia.

6. PRESCRIBING RED CELL TRANSFUSION

6.1 Factors to be Considered for Each Transfusion Episode: -

- Have alternatives to red cell transfusion been considered?
- Does the transfusion laboratory have a valid group and save/crossmatch sample, including a sample for confirmatory group check if this is required?
- How many units will the patient need to achieve the target Hb (give 1 unit and review if patient not actively bleeding or on a chronic transfusion programme)?
- Whenever possible, has the rationale for transfusion been explained to the patient, and consent for transfusion obtained? This rationale and consent must be recorded in the patient's notes.
- Does the patient have special requirements e.g. irradiated or CMV negative blood? (*see separate policies*).
- Does the patient have atypical antibodies present meaning the patient will not be suitable for electronic issue of units - this may lead to delays in provision of blood.
- Is the patient at risk of fluid overload? Complete the Transfusion Associated Circulatory Overload (TACO) risk assessment (*Appendix B*).
- Are any medicines to be given with the transfusion (e.g.: diuretic) prescribed?

Has the patient had previous transfusions, and have any adverse reactions been recorded?

- 6.2 In **non-bleeding patients** who are not on a transfusion programme for chronic anaemia, it is recommended that only **1 unit of red cells is prescribed at a time** and the patient is clinically reassessed before further units are transfused. This assessment should include, where possible, a haemoglobin check. There is a paucity of evidence about how long after the end of each unit of red cells this can be performed, but 15 minutes is suggested and has been widely adopted (Elizade et al 1997).
- 6.3 All requests for red cells are monitored by transfusion laboratory staff, and requests that are considered inappropriate may be referred to a Consultant Haematologist for further advice. Assuming that 1 unit of red cells raises haemoglobin by 10g/l, only the minimum number of units to raise the patient's haemoglobin above the appropriate trigger level should be requested. **Please note: this does not apply to actively bleeding patients.**
- 6.4 The rationale for transfusion must be clearly documented in the medical records. In particular, the reason for any deviation/variance from the transfusion thresholds should be explained and documented.
- 6.5 Red cells must only be prescribed on the dedicated Blood Prescription Chart and Transfusion Record.

The following sections of this chart must be completed:

- Patient's first name, surname, hospital number, and DOB. Addressograph labels should be used where possible.
- The reason for transfusion/ diagnosis.
- The patient's current Haemoglobin where known, and target haemoglobin.
- Any special requirements (irradiated/ CMV screened negative components).
- Confirmation that the transfusion has been discussed with the patient. Wherever possible, patients must receive adequate information about the planned transfusion, including the possibility of alternatives, to enable them to make an informed decision to consent to the treatment. They should be offered a copy of the NHS Blood & Transplant Service leaflet '*Receiving a blood transfusion*' to supplement verbal information given to them. Copies of this leaflet are available at the blood bank or from the Transfusion Practitioners.
- Confirmation of assessment for risk of Transfusion Associated Circulatory overload (TACO) (*Appendix B.*)
- Type of blood component to be administered.
- Number of units or, where appropriate, or volume (mL) to be transfused.
- Duration or infusion rate for each unit (or volume in mL) to be transfused. For routine administration, this will usually be 2-3 hours per unit. However, in the management of major haemorrhage, blood components may be given very rapidly, and a rapid infusing device may be used. Patients less tolerant of increased blood volume should be transfused with careful haemodynamic monitoring. Whatever rate of transfusion is prescribed, the transfusion **must be completed within 4 hours of removal from the blood fridge**. Any red cells remaining in the bag at this point **must** be discarded, as the red cells may have deteriorated and be dangerous to use.

- Any special instructions, e.g. blood warmer to be used, concomitant medications such as a diuretic for patients at risk of circulatory overload (these should be prescribed on the patient's main prescription chart).
 - ID and signature of the prescriber.
- 6.6 If there is no clear clinical indication to transfuse overnight (between 20:00 and 08:00), consideration should be given to deferral of transfusion to the following morning.

7. COLLECTION OF RED CELLS FROM THE BLOOD FRIDGE

- 7.1 Only staff who have completed the trust competency assessment in blood collection are permitted to collect blood products from the blood fridge.
- 7.2 Unless moving blood between satellite fridges, only one unit of red cells must be removed from the blood fridge at a time, (unless extremely rapid transfusion is required for example major haemorrhage). Blood must be collected in this way for one patient at a time.
- 7.3 If there are any discrepancies in the paperwork, or the collector is not satisfied that the blood component is suitable, the unit must not be removed the blood fridge, and a member of the Transfusion Laboratory staff must be contacted for advice immediately.
- 7.4 Transfusion of each unit of red cells must start as soon possible after removal from the blood fridge. If not used immediately, provided it has not been connected to the patient, the unit must be returned to the blood fridge within a maximum of 30 minutes. If a unit of red cells has been out of the blood bank for more than 30 minutes, it must be returned to transfusion and handed to a member of the Transfusion Laboratory staff for quarantine or disposal, as appropriate.
- 7.5 Red cells must never be stored anywhere other than in a designated blood fridge.
- 7.6 The Blood Safety & Quality Regulations 2005 require that transfer of blood components to and from the main blood bank and any satellite blood fridges is recorded. The Trust utilises the Haemonetics BloodTrack system to document the movement of blood products and ensure effective cold chain management for each unit.

8. ADMINISTRATION OF RED CELLS

- 8.1 Administration of red cells must only be carried out by Registered Healthcare Professionals who have completed the Trust's competency document in collection blood and caring for a patient having a transfusion. In addition, staff any staff accessing IV sites must have completed the relevant training and assessment.
- 8.2 A 170 - 200 micron filter is required to administer red cells (blood giving set). The giving set should be changed after 2 units or at least every 12 hours.

- 8.3 Either gravity or electronic infusion devices (**if verified as safe for transfusion of blood components**) may be used for the administration of red cells. Whichever method is used, the volume delivered must be monitored regularly throughout the infusion to ensure that the expected volume is delivered at the required rate. Where a specific rate or volume of transfusion is required then a suitable electronic infusion pump must be used. If an electronic infusion device is used, the pre transfusion check should include a check of the device and its settings.
- 8.4 Red cells can be administered through a peripheral IV cannula or most central venous access devices (according to manufacturer's specifications). Where considered clinically necessary, red cells may also be administered via the intraosseous route (please note, for intraosseous red cell transfusion a blood giving set must be used. Red cells must **never** be drawn directly from the unit and then administered with a syringe).
- 8.5 The size of the peripheral cannula depends on the size and integrity of the vein and the speed at which the blood component is to be transfused. Peripherally inserted long central catheters (PICC lines) with narrow lumen diameter may lead to slower flow rates.
- 8.6 The practice of priming or flushing administration sets used for the transfusion of blood components with 0.9% sodium chloride is not evidence-based and is not necessary.
- 8.7 Under no circumstances should drugs be directly added to a blood component bag.
- 8.8 It is advised that no other IV fluids or drugs should be co-administered via an infusion line that is being used for a blood component or via a single-lumen venous access device. IV solutions that contain calcium may allow clots to form in the blood component, and 5% dextrose solutions may cause haemolysis. Wherever possible, IV drugs should be administered between transfusions, through a second venous access or the separate lumen of a multi lumen central venous catheter.

Some patients using patient-controlled analgesia (PCA) delivering opioid analgesia may have limited venous access, and it may not be possible to have separate access for blood transfusion. In these cases, research has shown no haemolysis when PCA morphine was co-administered with red blood cells.

- 8.9 Blood warmers (available from the equipment library) must be used in the transfusion of red blood cells to patients with clinically significant cold agglutinins, in the management of major haemorrhage and in adults undergoing elective or emergency surgery. Blood warming equipment should be certified by the manufacturer for the warming of blood components and used according to manufacturer's instructions. Do not improvise by using warm water or by using a heating device not specifically designed for warming blood.

9. PRE ADMINISTRATION CHECKS

- 9.1 All patients receiving a transfusion **must** wear a patient ID band.
- 9.2 The final pre administration check must always be conducted next to the patient (not in a remote clinical room or at the nursing station). Two members of staff must complete the checks independently (double independent checking).
- 9.3 Wherever possible, positively identify the patient by asking them to state (as a minimum) full name (first and last names) and date of birth. These patient ID details must match exactly those on the patient ID band. For any patients who are considered unable to identify themselves (e.g. unconscious or confused patients, or where there is a language barrier), additional care in patient ID should be taken.
- 9.4 All details on the patient ID band **must** match exactly the details on the prescription and the label attached to the blood component pack.
- 9.5 Once all checks have been successfully completed, the transfusion should be started immediately.

10. COMPONENT CHECKS

- 10.1 Check the component pack label and the prescription to ensure that the type of blood component prescribed is the same as the type of blood component received and any additional clinical requirements have been met (e.g. irradiated, CMV screened negative).
- 10.2 The unique component donation number and the blood group on the component pack label must be the same as on the laboratory-generated label attached to the blood component. The component blood group must be appropriate for the patient blood group. For red blood cells, the component blood group must be identical or compatible with the patient's ABO group.
- 10.3 Check the expiry date of the component – unless a specific expiry time is stated, the component expires at 23:59 on the date shown.
- 10.4 Inspect the component pack for any signs of leakage or damaged packaging. Inspect the blood component for unusual colour, turbidity or clumping of the contents. If any defect is suspected, then contact the transfusion laboratory for advice before starting the transfusion.
- 10.5 If there are any discrepancies or concerns, the transfusion laboratory should be informed and the component must not be transfused until there has been an investigation.

11. OBSERVATION AND MONITORING OF PATIENTS DURING RED CELL TRANSFUSION

- 11.1 Observation and monitoring of the patient during transfusion is essential if adverse reactions are to be quickly identified and managed. There must be sufficient staff available to adequately monitor the patient and to quickly recognise and action any adverse events.
- 11.2 Pulse, blood pressure, temperature and respiratory rate should be undertaken (as a minimum):
- Pre-transfusion (no more than 60 min before the start of the transfusion).
 - 15 min after the start of each unit
 - Observations during the remainder of the transfusion should be recorded as frequently as the staff member responsible for the patient's care considers appropriate, depending on the patient's condition.
 - Post-transfusion observations, taken and recorded not more than 60 min after the end of the transfusion.
- 11.3 There must also be regular visual monitoring of the patient throughout the transfusion episode.
- 11.4 Patients should be informed about possible adverse effects of transfusion and the importance of reporting immediately any potential symptoms of an adverse reaction. Make sure they have their call bell.
- 11.5 Special care should be taken in patients who are unable to communicate symptoms of a developing transfusion reaction (e.g. unconscious/ confused) and more frequent observations may be required.

12. THE MANAGEMENT AND REPORTING OF ADVERSE EVENTS

- 12.1 If an adverse reaction is suspected, the transfusion must be stopped immediately. Full guidance on the management of Acute Transfusion reactions can be found in the Blood Transfusion Policy.
- 12.2 It is the responsibility of clinical staff administering the red cells to contact the Blood Transfusion Laboratory immediately if a reaction is suspected and to consider requesting advice from the Consultant Haematologist.
- 12.3 A Transfusion Adverse reaction report form (available on the intranet) must be completed and returned to the transfusion laboratory, and a DATIX report submitted. The incident, and any actions taken, must be recorded in the patient's notes.

- 12.4 All incidents or suspected reactions must be reported to the transfusion laboratory, who will report to SABRE (Serious Adverse Blood Reactions and Events)/SHOT (Serious Hazards of Transfusion) or NHSBT (NHS Blood and Transplant) as appropriate.

13. DOCUMENTATION OF TRANSFUSION

- 13.1 Indications for, and the outcome of, the transfusion along with the presence or absence of any adverse effects must be documented clearly in the patient's medical record.
- 13.2 The serial number of the unit transfused, and the transfusion start & finish time must be recorded on the dedicated Blood Transfusion Prescription and transfusion record chart.
- 13.3 Evidence of transfusion is required by law to be retained for a minimum of 30 years. Transfused units must be fated as 'Transfused' using the Haemonetics BloodTrack system in the clinical area.
- 13.4 The return section of the traceability tag must be completed and returned to the laboratory to provide this record. In the absence of the tag, written confirmation, or a photocopy of the prescription chart must be provided.

14. SATELLITE BLOOD BANK ALARMS

- 14.1 All blood fridges in North West Anglia are monitored constantly to ensure they remain at the correct temperature. In the event of the blood fridge temperature becoming unsuitable for blood storage, an audible alarm will sound. If you hear this alarm, contact Transfusion immediately, as the transfusion lab staff will need to retrieve the stock in the fridge. Red cells must only be stored in a designated blood fridge, and under no circumstances moved to any other fridge within the clinical area.

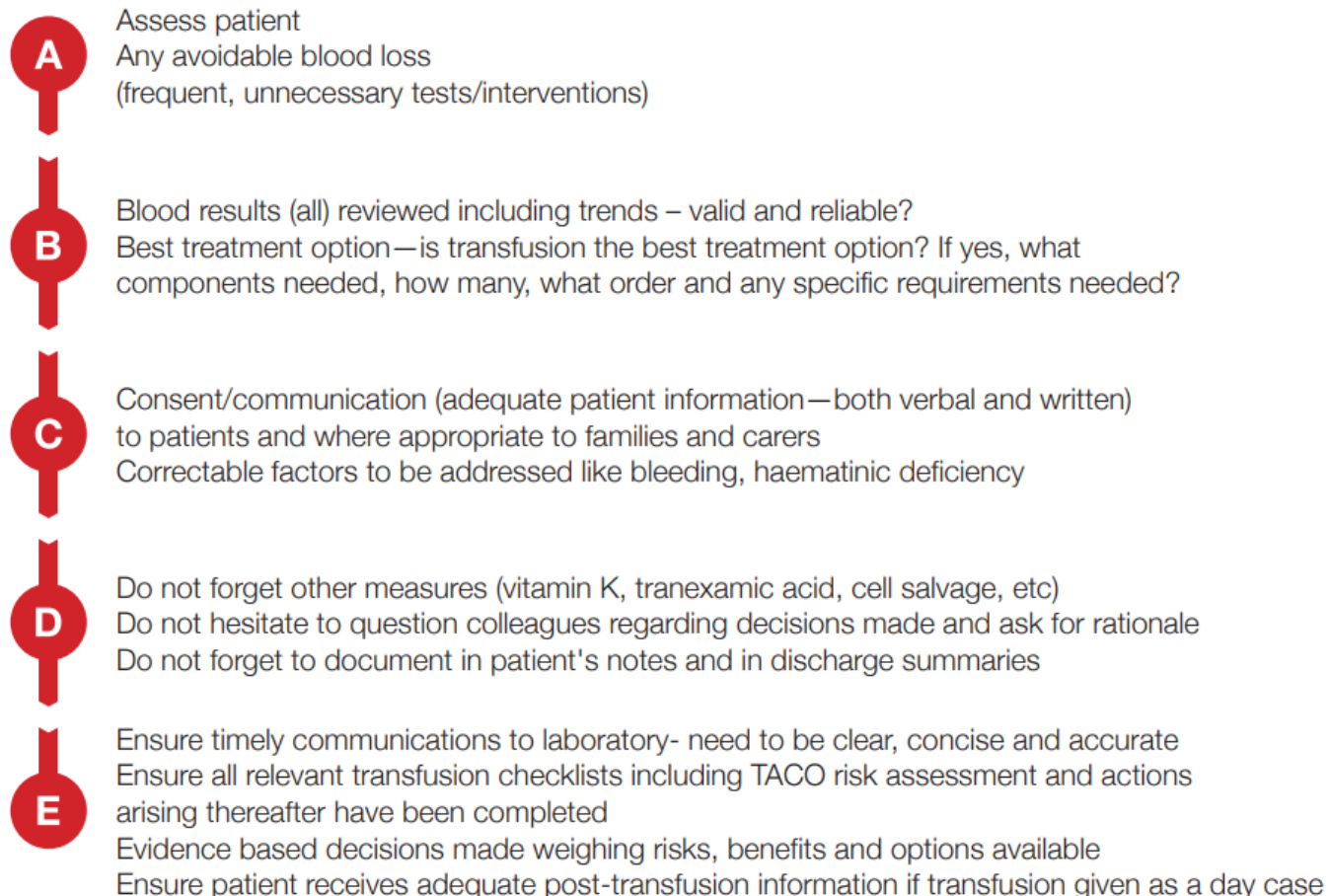
15. DISPOSAL OF UNITS

- 15.1 Used/ part used units must be kept for 24 hours, and then disposed of according to the waste disposal policy of the individual hospital site. Please check the lower half of the transfusion tag has been removed and returned to Transfusion. Please remove the remaining part of the transfusion tag and place this in a confidential waste bin.
- 15.2 If a unit is collected from the blood fridge, but not used, the unit must be returned to the transfusion laboratory within 30 minutes of removal from the fridge.
- 15.3 If the unit has been out of the fridge for more than 30 minutes and not connected to the patient, please return it to transfusion and scan the unit back in the blood fridge. Inform the Transfusion laboratory as soon as possible.

- 15.4 Do not dispose of any unused units, for any reason, without informing transfusion first. They will advise you of the appropriate action to take.

APPENDIX A: A-E DECISION TREE TO FACILITATE DECISION MAKING IN TRANSFUSION (SHOT 2024)

The A-E Decision Tree to facilitate decision making in transfusion



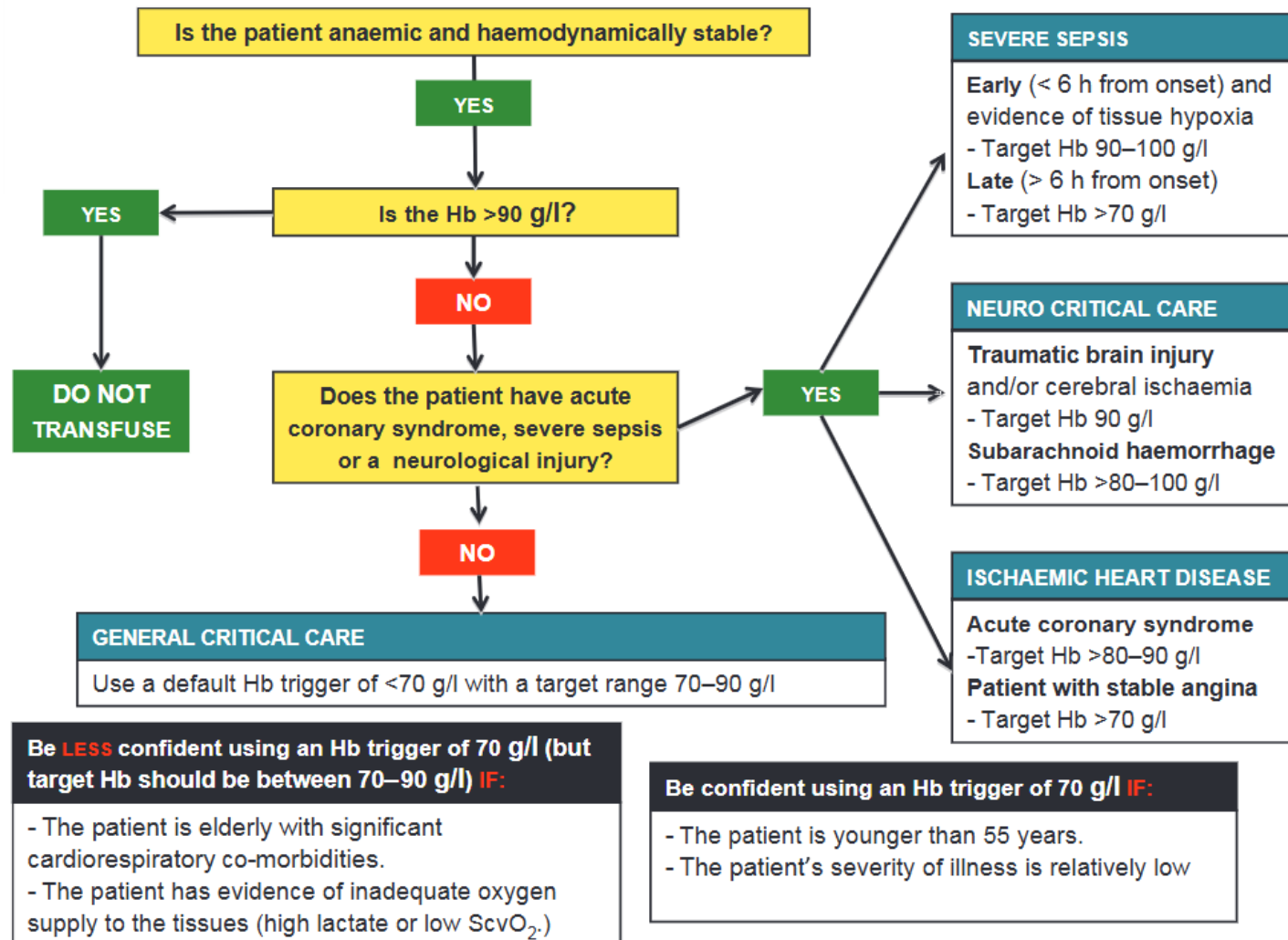
APPENDIX B: TRANSFUSION ASSOCIATED CIRCULATORY OVERLOAD (TACO) CHECKLIST (SHOT)

TACO Risk Assessment THIS MUST BE COMPLETED		YES	NO
	Does the patient have any of the following: diagnosis of 'heart failure', congestive cardiac failure (CCF), severe aortic stenosis, or moderate to severe left ventricular dysfunction?		
	Is the patient on a regular diuretic?		
	Does the patient have severe anaemia?		
	Is the patient known to have pulmonary oedema?		
	Does the patient have respiratory symptoms of undiagnosed cause?		
	Is the fluid balance clinically significantly positive?		
	Is the patient receiving intravenous fluids (or received them in the previous 24 hours)?		
	Is there any peripheral oedema?		
	Does the patient have hypoalbuminaemia?		
	Does the patient have significant renal impairment?		
If risks have been identified these have been discussed with a senior doctor - registrar or above		Signature 	
If Proceeding with Transfusion: Assign Actions			TICK
Body weight dosing for red cells			
Transfuse a single unit (red cells) and review symptoms			
Measure fluid balance			
Prophylactic diuretic prescribed (where appropriate/not contraindicated)			
Monitor vital signs closely, including oxygen saturation			

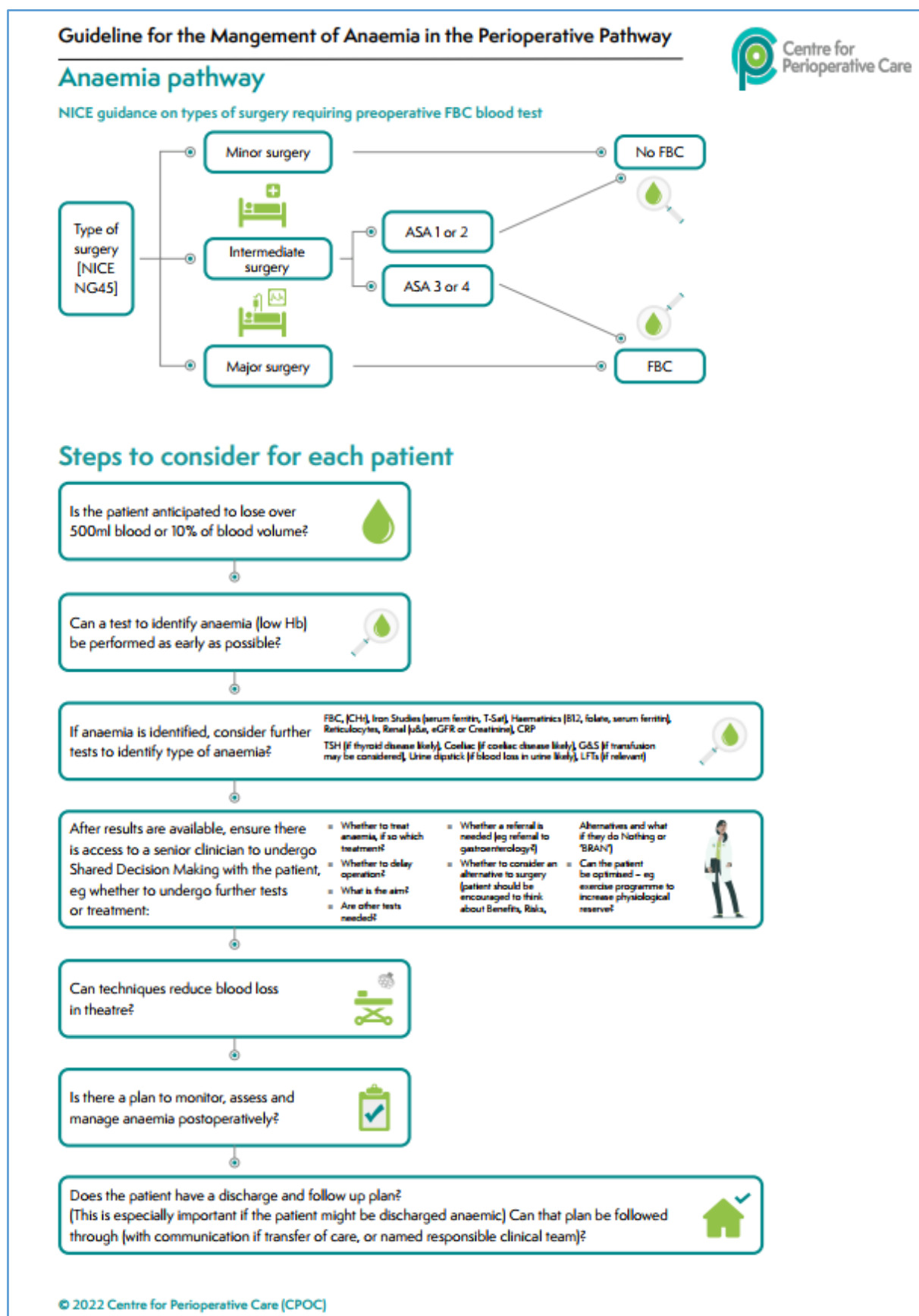
APPENDIX C: SUMMARY OF INDICATION CODES FOR TRANSFUSION OF RED CELLS (2024)

Code	Indication
R1	Acute bleeding
R2	Acute anaemia (e.g. following bleeding/ surgery/ critical illness) – haemodynamically stable patient and Hb $\leq$ 70 g/l
R3	Anaemia – haemodynamically stable patient with acute coronary syndrome (excluding stable ischaemic heart disease) and Hb $\leq$ 80 g/l
R4 R4a R4b	Chronic transfusion-dependent anaemia • Chronic bone marrow failure • Haemoglobinopathies
R5	Radiotherapy and Hb $\leq$ 100 g/l
R6	Exchange Transfusion
R7	Severe chronic anaemia: non-transfusion dependent (e.g. haematinic deficiency, anaemia of chronic disorder)

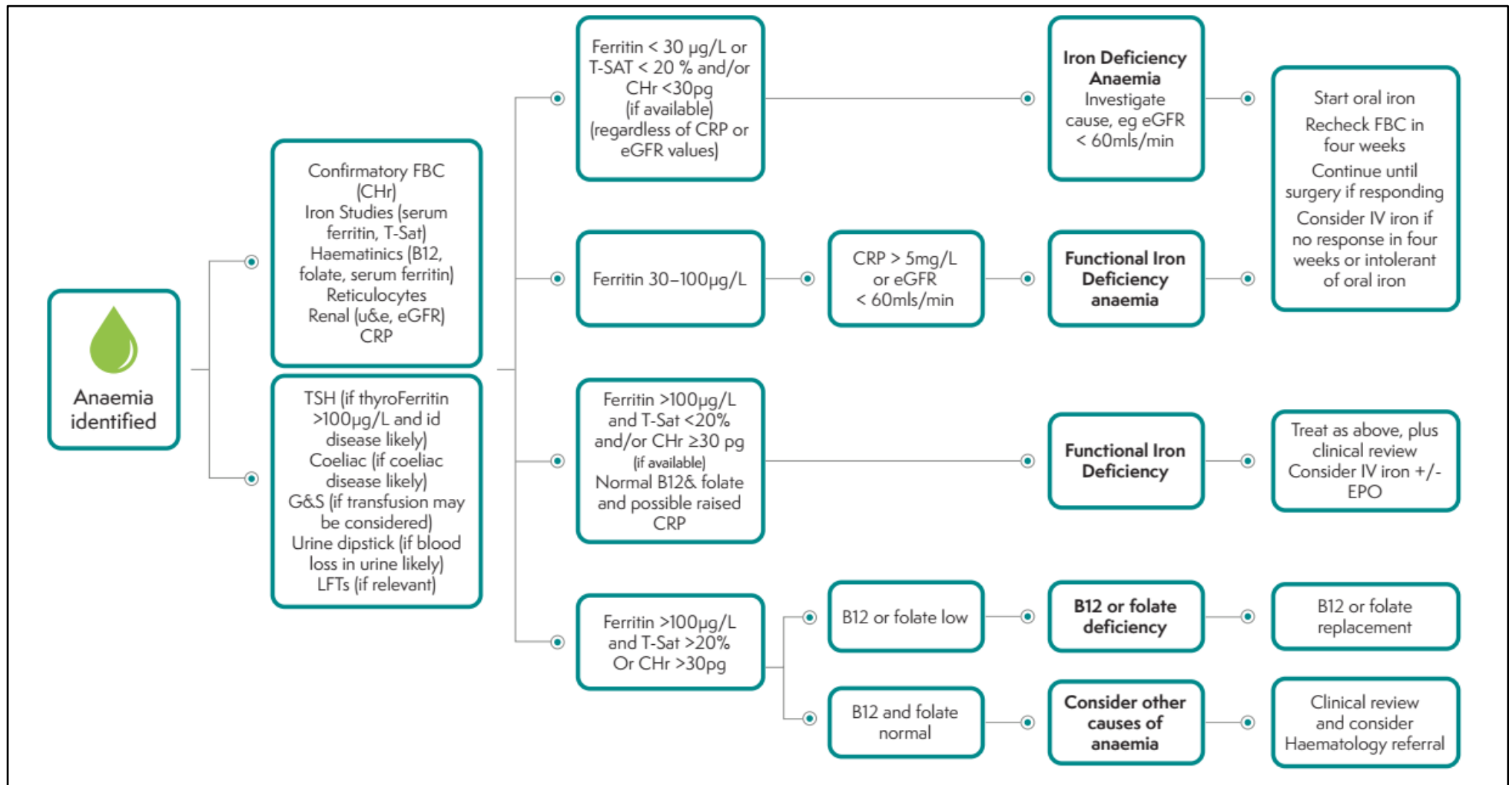
APPENDIX D: FLOWCHART FOR MANAGEMENT OF ANAEMIA AND RED CELL TRANSFUSION IN ADULT CRITICALLY ILL PATIENTS



APPENDIX E: CENTRE FOR PERIOPERATIVE CARE GUIDELINE FOR MANAGEMENT OF ANAEMIA IN THE PERIOPERATIVE PATHWAY 2022



APPENDIX F: CENTRE FOR PERIOPERATIVE CARE FLOWCHART FOR ESTABLISHING AND MANAGING TYPES OF ANAEMIA 2022



APPENDIX G: QUALITY ASSURANCE CHECKLIST

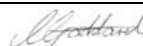
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2	Type of document (e.g. procedure, guidance)		
	Is it clear whether the document is a procedure, guideline, SOP?	Y	
3	Introduction		
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4	Content		
	Are all sections of the front cover completed correctly?	Y	
	Is the document in the correct Trust approved format?	Y	
	• Paragraphs numbered consecutively	Y	
	• Headers: only on front page to contain logo	Y	
	• Footers: on every page except front page	Y	
	Has the Author's Checklist (pg. 2) been fully updated?	Y	
	Are the Version numbers correct in the title, summary and the footers?	Y	
	Has the Version Control Summary (pg. 3) been fully updated with changes?	Y	
	Has the Document Contributors section (pg. 3) been completed?	Y	
	Are the objectives/aims clearly stated?	Y	
	Does this document concern the handling, moving or storage of personal identifiable or commercially sensitive information? If yes, has a Summary Privacy Impact Assessment been completed?	N/A	
5	Evidence Base		
	Is the type of evidence to support the document explicitly identified?	Y	
	Are associated documents referenced?	Y	
6	Approval Route		
	Has email approval been received for change of review date only?	N/A	
	Does the document identify which committee/group will approve it?	Y	
	Does the document meet the criteria for Second Level approval or Information Only?	Y	Info only

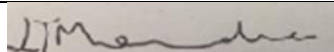
If answers to any of the above questions is 'no', then this document is not ready for approval, it needs further review.

It is vitally important that documents are forwarded to the Corporate Governance Compliance Team after every amendment and approval meeting to ensure the most up-to-date version is held by the team at all times.

CORPORATE GOVERNANCE COMPLIANCE TEAM:

1.	Date comments returned to author by Compliance Lead:	
2.	Date of Corporate Governance Compliance Team approval:	14 January 2026
3.	Name of Compliance Lead:	Carly Goddard 

**Please do not delete any of the below approval sections.
If certain sections are not applicable to the document's journey, please enter 'N/A'**

SPECIALTY APPROVAL MEETING: Hospital Transfusion Committee			
On approval, Chair to sign below and send the document and the minutes from the approval committee to the Corporate Governance Team. To aid distribution all documentation should use electronic signatures and be sent electronically wherever possible.			
Chair's Name	Dr Lynda Menadue	Date	04/02/2026
Signature			
CBU APPROVAL MEETING: PATHOLOGY MANAGEMENT AND GOVERNANCE COMMITTEE			
On approval, Chair to sign below and send the document and the minutes from the approval committee to the Corporate Governance Team. To aid distribution all documentation should use electronic signatures and be sent electronically wherever possible.			
Chair's Name	Dr Ashraf Ibrahim	Date	24/02/2026
Signature			
ADDITIONAL APPROVAL MEETINGS: Complete all that apply			
On approval, Chair to sign below and send the document and the minutes from the approval committee to the Corporate Governance Team. To aid distribution all documentation should use electronic signatures and be sent electronically wherever possible.			
Select Meeting.		Select Meeting.	
Chair's Name	Not Applicable	Chair's Name	Not Applicable
Date	Enter date	Date	Enter date
Signature		Signature	
Select Meeting.		Select Meeting.	
Chair's Name	Not Applicable	Chair's Name	Not Applicable
Date	Enter date	Date	Enter date
Signature		Signature	
FIRST-LEVEL APPROVAL: FISS Divisional Leadership Board			
On approval, Chair to sign below and send the document and the minutes from the approval committee to the Corporate Governance Team. To aid distribution all documentation should use electronic signatures and be sent electronically wherever possible.			
Chair's Name	DR. TIM JONES	Date	25/03/2026
Signature			
Please confirm if document requires Second-Level approval or it is to be submitted for information only. Please see section 6.4 of the Trust's Document Control Policy.			☐ APPROVAL ☒ INFORMATION ONLY
SECOND-LEVEL APPROVAL: Quality Governance Oversight Committee			
On approval, Chair to sign below and send the document and the minutes from the approval committee to the Corporate Governance Team. To aid distribution all documentation should use electronic signatures and be sent electronically wherever possible.			
Chair's Name		Date	Enter date
Signature			