North West Anglia
NHS Foundation Trust

Guidelines for Red Cell Transfusion in Adults
Version 6

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AUTHOR'S CHECKLIST

Document Title:	Guidelines for Red Cell Transfusion in Adults
Central Index Number:	C0162

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Considerations for all documents		**Y/N**	**Action**	
			"Yes"	"No"
1.	Is the document still required?	Yes	Please see question 2.	Arrange document removal with Exec Director/Chair of DLB and forward to the relevant compliance team.
2.	Has there been any change in guidance or national policy since the previous version?	Yes	Please see question 4.	Please see question 3.
3.	Where there has been no major[1] change to the document, can it be approved without having to go through all relevant committees (including those in chronological order)?	Select	Exec Director/Chair of the DLB to approve new review date by email*. *(see version control summary/page 3)* The following information must be sent to the relevant compliance team: 1. Evidence of review date approval (*email). 2. Author's Checklist page only. Non-Clinical Compliance Team Clinical Compliance Team	Proceed with review and approval processes
4.	Can the document be approved at first-level only? (Please refer to section 6 of the Trust-wide Document Control Policy)	No	Proceed with review and **first-level only** approval processes.	Proceed with review and both first and second-level approval processes.

[1] As defined in section 7.4 of the Trust-wide Document Control Policy

VERSION CONTROL SUMMARY

Version:	Page/Section of Document:	Description of change:	Date Exec Director/Chair of DLB approval given for change of review date only	Date approved:	Date published:
1		Original document	N/A	October 2006	October 2006
2		Planned review	N/A	January 2010	January 2010
3		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
4		NICE guidelines on indication for transfusion added	N/A	12/07/2016	13/07/2016
5		Review and merging of PSHFT and HHCT documents into NWAFT document	N/A	10/10/2019	14/10/2019
6	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

CONTENTS

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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 2018) 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 check haemoglobin. 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 at 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, volume (mL) to be transfused.
- Duration (or rate) that each unit (or volume in mL) is to be transfused. For routine administration, this will usually be 2-3 hours per unit. However in the management of major haemorrhage, blood components will be given very rapidly, and a rapid infusing devise 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 patients 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 collecting blood are permitted to collect blood components and 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).

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 or each unit of red cells must start as soon possible after they are removed 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, and the time it was returned recorded on the laboratory compatibility report. 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. To achieve this, the date, time and signature of person transferring the blood must be documented on the tracking log on the REVERSE of the compatibility report.

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. If the blood group of the unit and the patient is not identical, a comment will be printed on the compatibility paperwork highlighting the difference but stating that the red blood cells are suitable for transfusion.

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 30 years. 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 on a designated blood fridge, and under no circumstances moved to any other fridge within the clinical area.

15. DISPOSAL OF UNITS

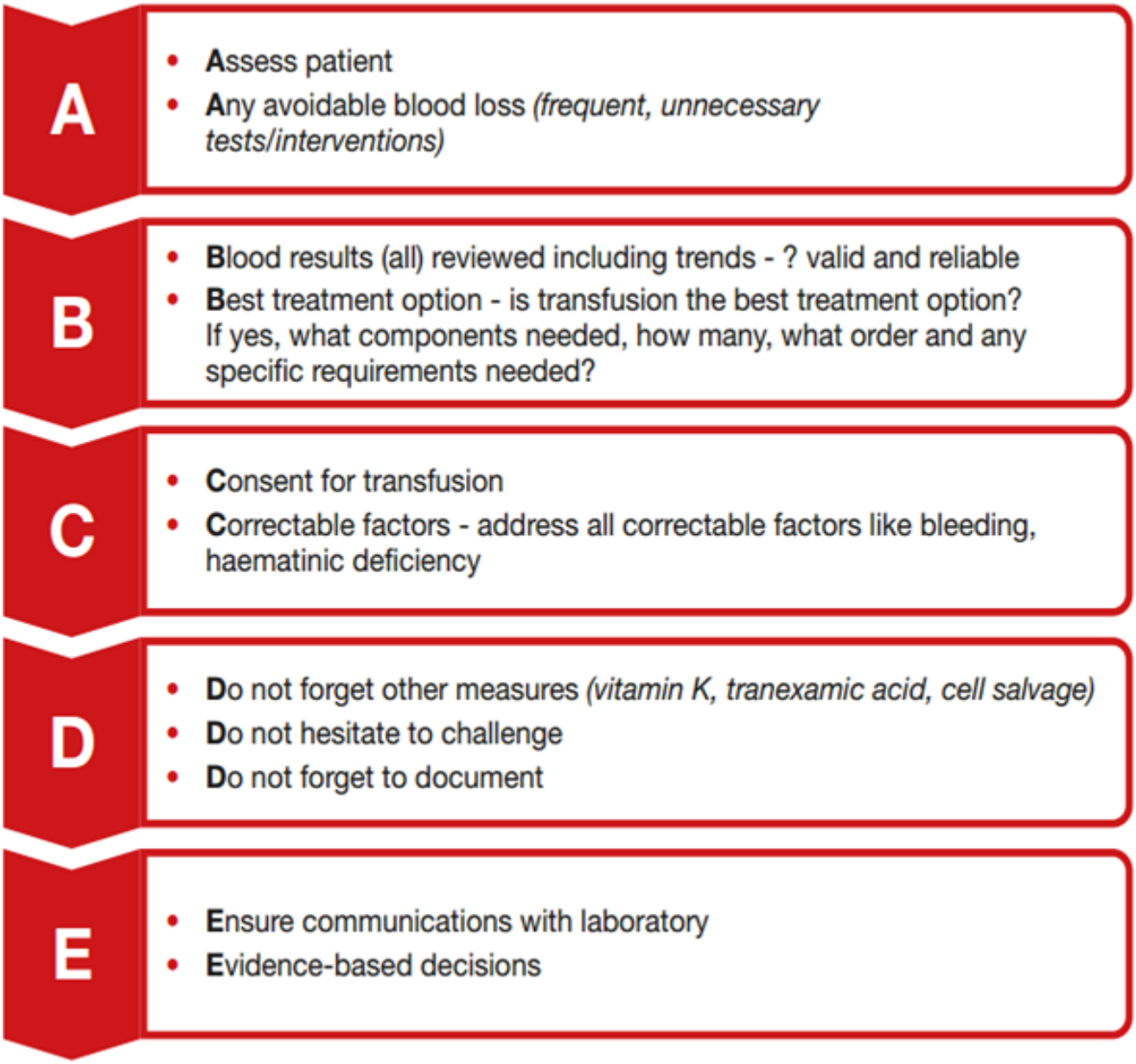
15.1 Used/ part used units must be kept for 24 hours, and then disposed of according to the waste disposal policy of the individual hospital site. Please check the lower half of the transfusion tag has been removed and returned to Transfusion. At PCH, please remove the remaining part of the transfusion 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 the time it was removed 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 hand it to a member of staff for disposal or quarantine as appropriate.

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 2018)



APPENDIX B: TRANSFUSION ASSOCIATED CIRCULATORY OVERLOAD (TACO) CHECKLIST (SHOT 2018)

TACO Checklist	Red cell transfusion for non-bleeding patients	If 'yes' to any of these questions
	Does the patient have a 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?	1 • Review the need for transfusion (do the benefits outweigh the risks)?
	Is the patient known to have pulmonary oedema? Does the patient have respiratory symptoms of undiagnosed cause?	2 • Can the transfusion be safely deferred until the issue can be investigated, treated or resolved?
	Is the fluid balance clinically significantly positive? Is the patient on concomitant fluids (or has been in the past 24 hours)? Is there any peripheral oedema? Does the patient have hypoalbuminaemia? Does the patient have significant renal impairment?	3 • Consider body weight dosing for red cells (especially if low body weight) • Transfuse one unit (red cells) and review symptoms of anaemia • Measure the fluid balance • Consider giving a prophylactic diuretic • Monitor the vital signs closely, including oxygen saturation

Due to the differences in adult and neonatal physiology, babies may have a different risk for TACO. Calculate the dose by weight and observe the notes above.

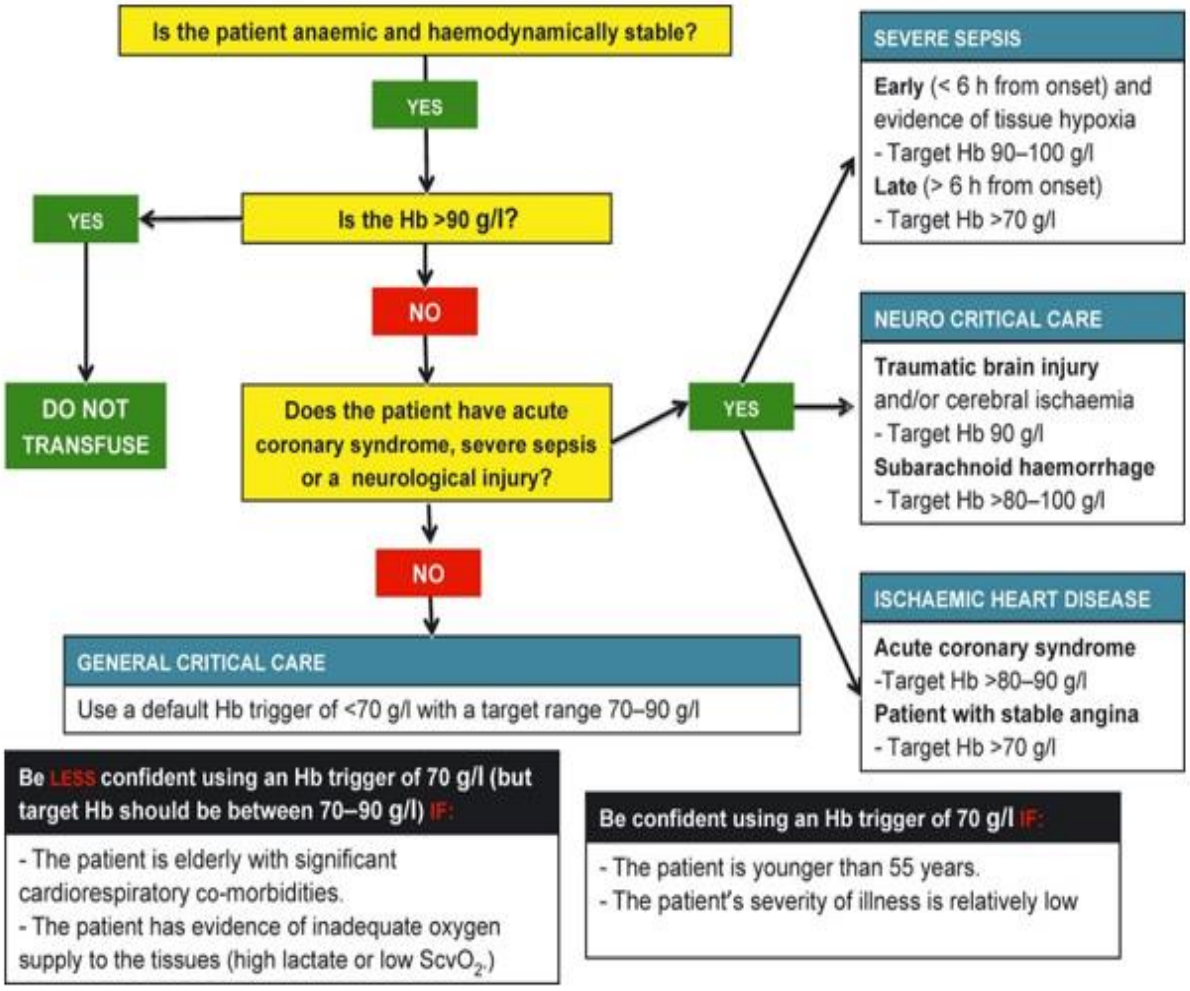
TACO=transfusion-associated circulatory overload

APPENDIX C: SUMMARY OF INDICATION CODES FOR TRANSFUSION OF RED CELLS

Code		Indication
R1	**Acute bleeding**	• Patients with acute blood loss and haemodynamic instability. • Decisions about the use of red cell transfusion in acute blood loss situations should be made by experienced clinicians. • Hb may be unreliable. • When normovolaemic use Hb thresholds below.
R2	**Hb ≤70g/L stable patient Acute anaemia**	• Use an Hb threshold of **70g/L** and a target Hb of **70-90g/L** to guide red cell transfusion. • Follow flowchart in appendix D for indications such as severe sepsis, neuro critical care or ischaemic heart disease
R3	**Hb ≤80g/L if cardiovascular disease**	• Use an Hb threshold of **80g/L** and a target Hb of **80-100g/L** to guide red cell transfusion. • Follow flowchart in appendix D for indications such as severe sepsis, neuro critical care or ischaemic heart disease
R4	**Chronic transfusion dependent anaemia**	• Transfuse to maintain an Hb which prevents symptoms. Suggest an Hb threshold of **80g/L** initially and adjust as required. • Haemoglobinopathy patients require individualised Hb thresholds depending on age and diagnosis.
R5	**Radiotherapy maintain Hb ≥110g/L**	• There is some evidence for maintaining an Hb of **≥110g/L** in patients receiving radiotherapy for cervical and possibly other tumours.
R6	**Exchange Transfusion**	• Code only to be used for exchange transfusions.
R7	**Surgical pre order**	• Code only to be used for pre ordering of blood for planned surgery (where a patient's haemoglobin level may not be known).

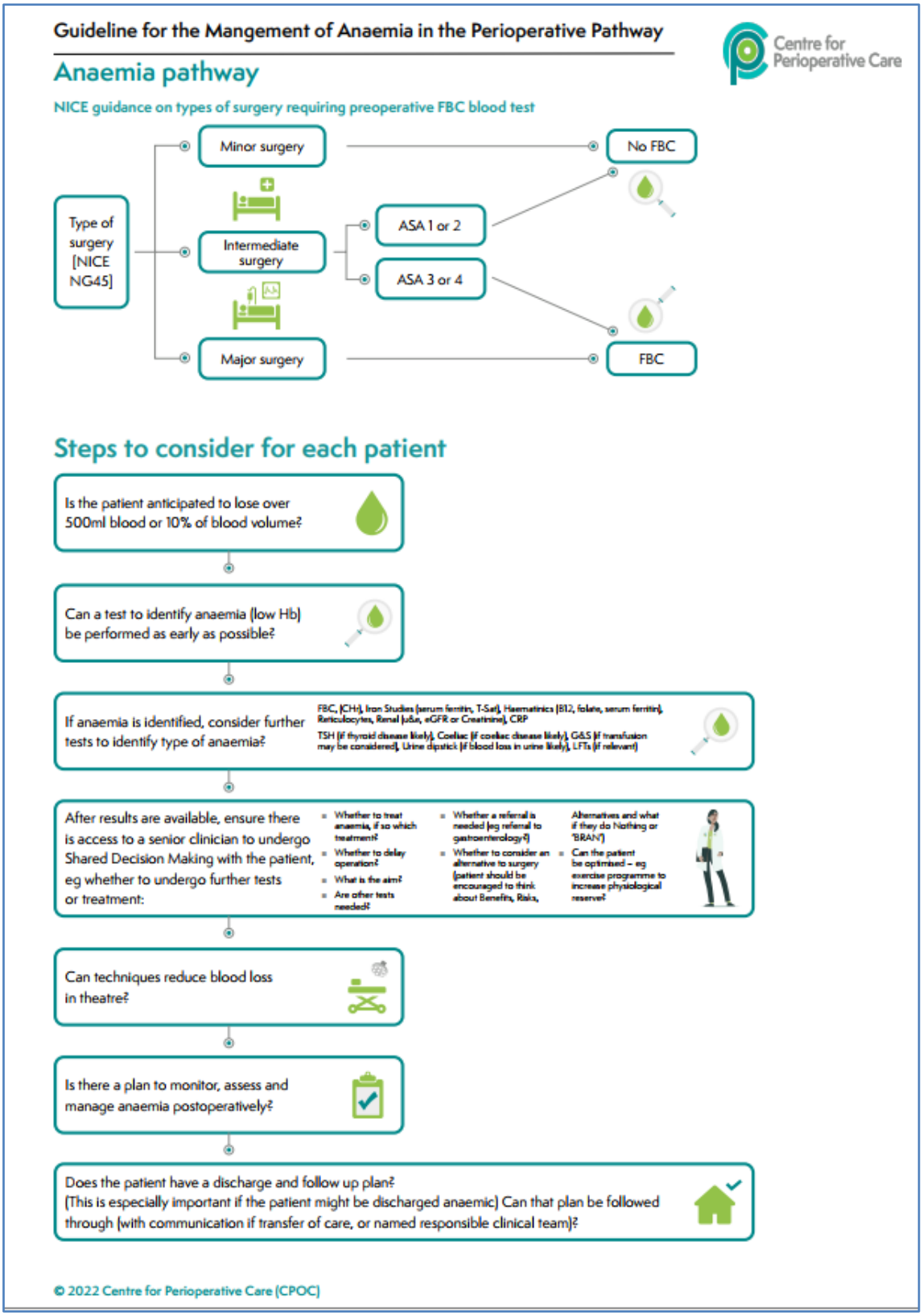
APPENDIX D: FLOWCHART FOR MANAGEMENT OF ANAEMIA AND RED CELL TRANSFUSION IN ADULT CRITICALLY ILL PATIENTS

Guidelines on the management of anaemia and red cell transfusion in adult critically ill patients

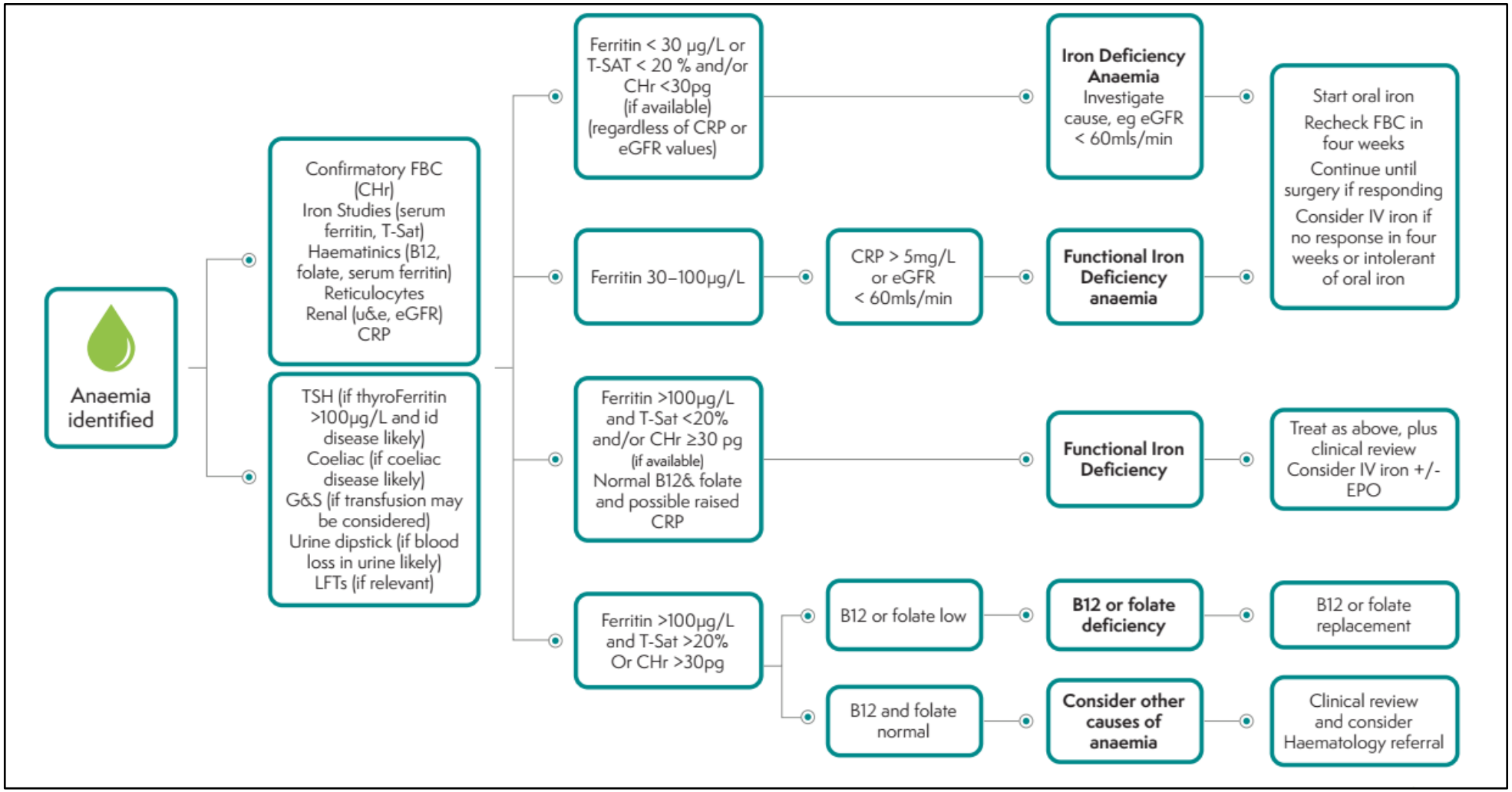


Br J Haematol, Volume: 160, Issue: 4, Pages: 445-464, First published: 27 December 2012, DOI: (10.1111/bjh.12143)

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



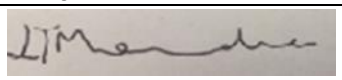
APPENDIX G: QUALITY ASSURANCE CHECKLIST

CORPORATE GOVERNANCE COMPLIANCE OFFICER'S USE ONLY

		Y/N/ n/a	COMMENTS (to author for amendments)
1	**Title of document**		
	Is the title clear and unambiguous	Y	
2	**Type of document (e.g. procedure, guidance)**		
	Is it clear whether the document is a procedure, guideline, standard operating procedure?	Y	
3	**Introduction**		
	Are reasons for the development of the document clearly stated?	Y	
4	**Content**		
	Is the standard model template used?	Y	
	Are all sections of the front cover completed?	Y	
	Is the document in the correct format?	Y	
	• Paragraphs numbered consecutively	Y	
	• Headers: only on front page to contain logo	Y	
	• Footers: on every page except front page	Y	
	Are the Version Control numbers correct in the panel and the footer	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	
	Does the document meet the criteria for Second Level approval?	Y	
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	

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

COMPLIANCE TEAM:		
1.	Date Comments returned to author by Compliance Lead	
2.	Date of Compliance Team approval	23 September 2022
3.	Name of Compliance Lead	Carly Goddard 

SPECIALTY APPROVAL MEETING: Hospital Transfusion Committee			
If the committee/group is happy to approve this document would the chair please sign below and send the document and the minutes from the approval committee to the author. To aid distribution all documentation should be sent electronically wherever possible.			
Name	**Dr Lynda Menadue**	**Date**	02/11/2022
Signature			

CBU APPROVAL MEETING: Enter name of **CBU** meeting			
If the committee/group is happy to approve this document would the chair please sign below and send the document and the minutes from the approval committee to the author. To aid distribution all documentation should be sent electronically wherever possible.			
Name	***Not Applicable***	**Date**	Enter date
Signature			

ADDITIONAL APPROVAL MEETINGS: Complete all that apply

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***Name of relevant Care Quality Committee**	
Name	***Not Applicable***
Date	Enter date
Signature	

D&TC	
Name	***Not Applicable***
Date	Enter date
Signature	

TIPCC	
Name	***Not Applicable***
Date	Enter date
Signature	

Safeguarding	
Name	***Not Applicable***
Date	Enter date
Signature	

FIRST-LEVEL APPROVAL: FISS Divisional Leadership Board			
If the committee/group is happy to approve this document would the chair please sign below and send the document and the minutes from the approval committee to the author. To aid distribution all documentation should be sent electronically wherever possible.			
Name	**James Hender, Divisional Operations Director**	**Date**	30/11/2022
Signature			

SECOND-LEVEL APPROVAL: Quality Governance Operational Committee			
If the committee/group is happy to approve this document would the chair please sign below and send the document and the minutes from the approval committee to the author. To aid distribution all documentation should be sent electronically wherever possible.			
Name	Dr Callum Gardner	**Date**	18/01/2023
Signature