


TRUST POLICY FOR EMERGENCY MANAGEMENT OF RED BLOOD CELLS AND PLATELET SHORTAGES

Reference Number: XXXXXX	Version: 1	Status: Final	Author: Katarina Kacinova Job Title: Transfusion Practitioner	
Version / Amendment History	Version	Date	Author	Reason
	V1	October 2023	Katarina Kacinova	Transferring to UHDB wide policy and incorporating latest national guidance
<p>Intended Recipients: All staff involved in blood transfusion process; Executive Directors, Divisional Directors, Divisional Medical Directors, Divisional Nurse Directors, Head of Capacity, Emergency Preparedness Manager, Hospital Transfusion Committee (HTC) and Hospital Transfusion Team (HTT) Emergency Blood Management Group (EBMG) Members</p>				
<p>Training and Dissemination: No specific training is required for Clinicians and staff in general, but advice can always be sought from members of the HTT or HTC as appropriate.</p>				
<p>To be read in conjunction with: Blood Transfusion Policy, National Clinical Guidance for Major Incidents and Mass Casualty Events</p>				
<p>In consultation with and date: QHB and RDH HTC 28th September 2023</p>				
<p>EIRA stage One Completed Yes Stage Two Completed No</p>				
<p>Procedural Documentation Review Group Assurance and Date</p>			<p>QHB and RDH HTC 28th September 2023</p>	
<p>Approving Body and Date Approved</p>			<p>Trust Delivery Group</p>	
<p>Date of Issue</p>			<p>October 2023</p>	
<p>Review Date and Frequency</p>			<p>October 2026 then every 3 years</p>	
<p>Contact for Review</p>			<p>Transfusion Practitioner</p>	
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1. Introduction

Derby and Burton University Hospitals NHS Foundation Trust (the Trust) is committed to a working partnership with the National Health Service Blood and Transplant (NHSBT) for the appropriate management of blood stocks.

The objective of the NHSBT, working with hospitals, is to ensure that those patients who need blood can receive a transfusion regardless of their geographical location.

Pre-determined plans will be critical to ensuring transfusion support remains available for the patients who need it most.

This Policy sets out a framework for the use of blood for transfusion in times of national shortages.

2. Purpose

The Department of Health requires that Trust has an Emergency Blood Management Plan (EBMP) in place to ensure that any national shortage of blood or platelets are effectively managed, that the Trust continues operating, and that patients continue to receive blood and platelets. To prepare for the possibility of a prolonged and / or severe shortage of blood there must be a well outlined contingency plan.

The appropriate use of donor blood and the use of effective alternatives to blood are important public health and clinical governance issues. This plan is designed to build on actions taken by hospitals to improve transfusion safety and effectiveness in line with the Better Blood Transfusion and Patient Blood Management PBM initiatives.

The plan has the following two key aims:

- That the national “pool” of blood is available for all essential transfusions to all patients equally across the country (logistical actions)
- That overall usage is reduced to ensure the most urgent cases receive the supply that is available (clinical actions).

3. Scope

This Policy affects all patients who may require red blood cells or platelets at times of national shortages.

4. Definitions

- Platelets - Pooled or apheresis platelets
- Blood - Red blood cells in additive solution / SAG-M.

5. Roles and Responsibilities

The Trust Board

The Trust Board are ultimately responsible for ensuring the Trust has effective Policies / procedures in place to manage transfusion issues including shortages.

Executive Chief Nurse, Executive Medical Director, and Executive Chief Operating Officer

The Executive Chief Nurse, Executive Medical Director and / Executive Chief Operating Officer are responsible for ensuring staff are informed of and adhere to the Policy.

Patient Safety Group

To ensure compliance with relevant national safety legislation and targets and be assured that the appropriate policies are developed and implemented at corporate, directorate and operational level.

To ensure that lessons learned are widely shared to improve patient safety.

Hospital Transfusion Committee (HTC)

The HTC has delegated responsibility, on behalf of the Patient Safety Group, to:

- Implement the Trust's Policies and procedures related to blood transfusion
- Ensure effective communications are established during and after the shortage
- Ensure a written report is submitted to the Patient Safety Group when the shortage is over, outlining any impact on services and lessons learned including any amendments to the contingency plan.

Hospital Transfusion Team (HTT)

The HTT is responsible for:

- Advising the EBMG regarding transfusion support for haematology patients
- Communicating the decisions of the EBMG to haematology clinical colleagues
- Advising on transfusion support for any requests for patients outside of the agreed categories
- Liaising between laboratory and clinical staff for patients with massive haemorrhage.

Blood Bank Manager / Senior Biomedical Scientist (BMS) (in their absence)

The Blood Bank Manager is responsible for:

- Alerting the on-call Haematology Consultant when the Trust has been notified of shortages.
- Ensuring all requests for transfusion are issued in accordance with the patient categories supported as advised by the EBMG
- Ensuring effective management of blood stocks. Out of hours, the BMS will inform the Clinical Site Practitioner in addition to the on-call Haematology Consultant.

Emergency Blood Management Group (EBMG)

EBMG is responsible for assessing the impact of the blood shortage against the ability of the Trust to carry out normal activities, making decisions regarding non-supply of transfusion and ensuring the information is cascaded to all clinical leads.

6. Notification of Blood Shortages

National stock levels are monitored daily, and production levels amended to ensure stock levels are kept at the pre-set target level. However, if this does not have the desired impact several wide-ranging actions may be taken.

If these actions are insufficient to mitigate blood supply issues in the short term, NHSBT will declare a shortage and communicate a move to the next appropriate phase.

NHSBT will send communications to Chief Executives, Medical Directors, Transfusion Laboratory Managers, Transfusion Practitioners, Chairs of Regional Transfusion Committees, Consultant Haematologists with responsibility for Blood Transfusion and England EPRR.

The plan is structured to provide a framework of actions for NHSBT and hospitals at four phases:

Green: Normal circumstances where supply meets demand.

Pre-Amber: Reduced availability of blood for a short or prolonged period without impact on clinical care.

Amber: Reduced availability of blood for a short or prolonged period with impact on clinical activity.

Red: Severe, prolonged shortages with impact on clinical activity.

7. The Trust Response

The Trusts response to a reduction in availability of blood and / or platelets will be based on the two main components of the national plan; a reduction in stocks held in the Trust and a reduction in usage by the Trust. The laboratory and HTT will enact the EBMP.

The EBMG will meet immediately after the notification of shortage is received and as often as required during the shortage and manage the response. The Theatre Schedule must be available for this meeting.

Using information regarding current blood stocks in the Trust, the type and severity of the national shortage, and the existing requests for blood and platelets, the EBMG will decide, in accordance with national guidance, which patients will be supported with transfusion.

The EBMG will have delegated authority to decide and implement all necessary actions arising from the shortage of blood. The EBMG will define the period for which these arrangements will be in effect or when they will be reviewed.

The decisions made by the EBMG will be documented in the minutes. The EBMG will ensure effective communication is established. The Chair of the HTT will inform the Communications team to arrange for appropriate internal messaging to be disseminated to staff. The team should be notified by emailing uhdb.communications@nhs.net in hours, and by contacting the communications on-call service out-of-hours via switchboard. The Communications team is responsible for communicating with external organisations, including handling any media interest.

8. Actions during red cell shortage phase

Green phase:

The Trust will will develop an Emergency Blood Management Arrangements (EBMA) and integrate these within their emergency incident plans. The EBMA will define which members of staff will participate in the shortage management and how a reduction in usage will be achieved.

During the Green phase NHSBT will continue to develop communications and logistics plans to support hospitals as effectively as possible during shortages.

Use of red cells should be monitored to ensure appropriate use.

Pre-Amber Phase:

The Trust will:

- Ensure that EBMA are in place and that the EBMG can be convened quickly if needed. This is in anticipation of a potential Amber alert should the situation not improve. It is recommended that the Executive Medical Director is alerted at the potential move to Amber and the implications of this move.
- Review haemoglobin triggers for red cell transfusions with use of restrictive transfusions as per evidence-based Patient Blood Management guidance.
- Use tools available to support decisions to administer transfusions and to consider alternatives to blood including the Blood Components App summarising national clinical indications for transfusions and the Patient Blood Management toolkit.
- If contacted by NHSBT for recruitment of specific blood groups of donors, ensure communications are relayed by advertisement on the local intranet requesting staff who are regular blood donors to arrange appointment with local donation centre.
- Reduce stockholding of red cells where possible. Even a small reduction in stockholding in every hospital will make a significant difference overall.
- Conserve group O D negative red cells for group O D negative patients in line with guidelines.
- Transfuse group specific blood wherever possible.
- Reduce levels of stock in remote fridges.

Amber Phase:

The information from NHSBT will include the nature of the shortage and any actions needed to be taken by hospitals as part of their EBMA. At this stage, the Trust should activate the EBMA to confirm any actions to be taken.

The Trust may be expected to revise their usage and / or stockholding further during the Amber phase.

If patient care is adversely affected by the red cell shortage, the responsibility for communicating this to the patient i.e., duty of candour lies with the Hospital Consultant in charge of the patient. Advice can be sought from NHSBT Consultant as required.

If stocks of red cells return to a sustainable level, NHSBT will communicate to hospitals the return to **Green** phase. If, however, stocks continue to fall, NHSBT may communicate that a greater reduction in usage is required. This may be within the **Amber** phase or be accompanied by the declaration of a move to **Red** phase.

Red Phase:

NHSBT will declare a **Red** phase shortage if there is a severe shortage of red cells or, if an imminent severe threat to the supply of red cells is identified. The Red phase will be divided according to number of days of supply, Red B is between 0.5- 1.0 days' supply of stock, Red A is less than 0.5 days' supply of stock.

NHSBT will communicate with hospitals as in the Amber phase. The information will include the nature of the shortage and any actions that need to be taken as part of the EBMA. Actions will include a further reduction in stockholding and a reduction in usage by a percentage (based on normal use).

Hospitals are directed to the NBTC guidance and triage tool for the rationing of blood for massively bleeding patients during a severe national shortage. The Recommended Summary Plan for Emergency Care and Treatment (ReSPECT) can be used to document decisions made by multidisciplinary teams in an emergency.

If patient care is adversely affected by the red cell shortage, the responsibility for communicating this to the patient i.e., duty of candour lies with the Hospital Consultant in charge of the patient. Advice can be sought from NHSBT Consultant as required.

The Trust should report adverse incidents in patients or with the operation of this plan through local governance systems, SHOT, SABRE and with NHSBT as needed.

9. Actions during Platelet shortage phase

Green phase:

The Trust will develop the EBMA and integrate these within their emergency incident plans. The EBMA will define which members of staff will participate in the shortage management and how a reduction in usage will be achieved.

During the Green phase NHSBT will continue to develop communications and logistics plans to support hospitals as effectively as possible during shortages.

Use of red cells should be monitored to ensure appropriate use.

Pre-Amber Phase:

If stocks fall at one or more centres or in a particular ABO and D group, but the national stock remains above the pre-determined level, then NHSBT may ask the Trust to delay platelet transfusions or accept units of platelets of different ABO groups where possible (in line with BSH adult and paediatric guidelines). This will allow NHSBT to initiate stock transfers to balance the platelet stocks rather than declaring an amber shortage.

NHSBT will send communications to hospitals to undertake the required actions as:

- Reduce stockholding of platelets where possible. Small reductions across many organisations across the country will make a big difference to the supply chain
- Avoid requesting long dated platelets

- If time permits for urgent requests, match ABO group, rather than rely on group A platelets
- Accept and use both apheresis and pooled platelets (except where there is a requirement for HLA / HPA matched platelets).

Amber phase:

This information will be communicated by several channels including messaging boards on the Online Blood Ordering System, email and / or telephone, where appropriate. The information from NHSBT will include the nature of the shortage and any actions which need to be taken by hospitals as part of their EBMA.

At this stage, the Trust should activate the EBMA to confirm the local actions to be taken.

In the first instance, the actions will be to immediately reduce stockholding further. This will be achieved by ordering only where there is a specific identified requirement for a platelet transfusion or for a unit of platelet to be on standby to cover a procedure.

In addition, to ensure the available national stock is used to its maximum effect, NHSBT may request hospitals to:

- Consider sharing platelets with other hospitals, pathology network or local area
- Enter daily component stock levels and wastage data at least weekly into VANESA 8
- Restrict issues for use in accordance with identified categories of patient as defined in Appendix 5 If a reduction in usage is required at this stage, restrictions to supply will be limited to categories 1 and 2 (including HLA / HPA matched platelets). At this point all requests for units of platelets from the hospital must be authorised by a named clinician
- Not request long dated platelet units
- Accept platelets of a different ABO group (in line with BSH adult and paediatric guidelines)
- Accept leucodepleted platelets instead of CMV negative platelets
- Accept D positive platelet units where D negative platelet units are not available, administering anti-D to D negative patients of childbearing potential where appropriate (250 IU anti-D will cover 5 adult units of platelets)
- Optimise pre-op preparation of patients e.g., stop anti-platelet agents 7 days prior to surgery whenever possible
- Consider alternatives or additions to platelet transfusion i.e., Tranexamic acid, Desmopressin etc.

Red phase:

NHSBT will communicate with hospitals as in the Amber phase. The information will include the nature of the shortage and any actions that need to be taken by hospitals as part of their EBMA. Activities will include all actions taken under the Amber phase accompanied by a further reduction in usage such that usage will be restricted to patients in category 1 of Appendix 5 and transfusion threshold guidance given in Appendix 1 is followed.

NHSBT will take further actions to optimise platelet supply to complement those already taken in the Amber phase. These include:

- Importation of platelets from other UK blood services
- Production of reduced-dose apheresis platelets
- Production of 5-day platelets.

The Trust will be encouraged to share platelets with other hospitals within the Trust, pathology network or local area. Only hospitals who have been pre-approved by NHSBT (i.e., Major Trauma Centres and hospitals whose local Hospital Services is located a significant distance away) will be able to hold platelet stock.

10. Hemovigilance reporting

Any adverse events e.g., reduced-dose platelets issued by mistake to a bleeding patient (and where pooled standard dose platelets were available), delays in a necessary platelet transfusion or patients adversely affected by non-availability of platelets should be reported to SHOT (Serious Hazards of Transfusion).

11. Communication

Effective and rapid communication is essential to the success of this Policy. It is essential that all required information is widely disseminated to all relevant staff to ensure effective management during the period of blood shortage. It is likely that the blood shortage will result in cancellation of some elective surgery which could have significant impact on the workings of the Trust. There is also the potential for public concern when the shortage becomes widely known. Effective communications will ensure all appropriate people are informed.

Internal communication:

NHSBT will send communications to:

- Chief Executives
- Medical Directors
- Transfusion Laboratory Managers
- Transfusion Practitioners
- Chair of Regional
- Transfusion Committees
- Consultant Haematologist with responsibility for Blood
- Transfusion and England Emergency Preparedness Resilience and Response (EPRR).

EMBG to meet:

Following EBMG meeting and the likely implications have been agreed, a member of the EBMG must attend the Trusts Operations Meeting to brief the Head of Capacity.



Communication:

Information communicated to the staff via emails, intranet news and screensavers will include details of the emergency, its likely duration and action to take if real or potential problems are identified.

External communication:

The Chair of the HTT will inform the Communications team to arrange for appropriate communication. The team should be notified by emailing uhdb.communications@nhs.net in hours, and by contacting the communications on-call service out-of-hours via switchboard.



Communication:

The Communications team is responsible for communicating with external organisations, including handling any media interest.

The Communications team will explore the most appropriate form of media and stakeholder relations activity containing:

- Details of the problem,
- Actions taken,
- Likely consequences of the actions.

Advice will be provided to patients who may think their operation / admission could be affected.

This should include a contact telephone number of a person or team who can help them with their queries.

12. Stand Down

When the shortage is over, NHSBT will send communications to Chief Executives, Medical Directors, Transfusion Laboratory Managers, Transfusion Practitioners, Chairs of Regional Transfusion Committees, Consultant Haematologists with responsibility for Blood Transfusion and England Emergency Preparedness Resilience and Response (EPRR). This will be communicated to all relevant staff via email, intranet, and screensavers.

13. Monitoring Compliance

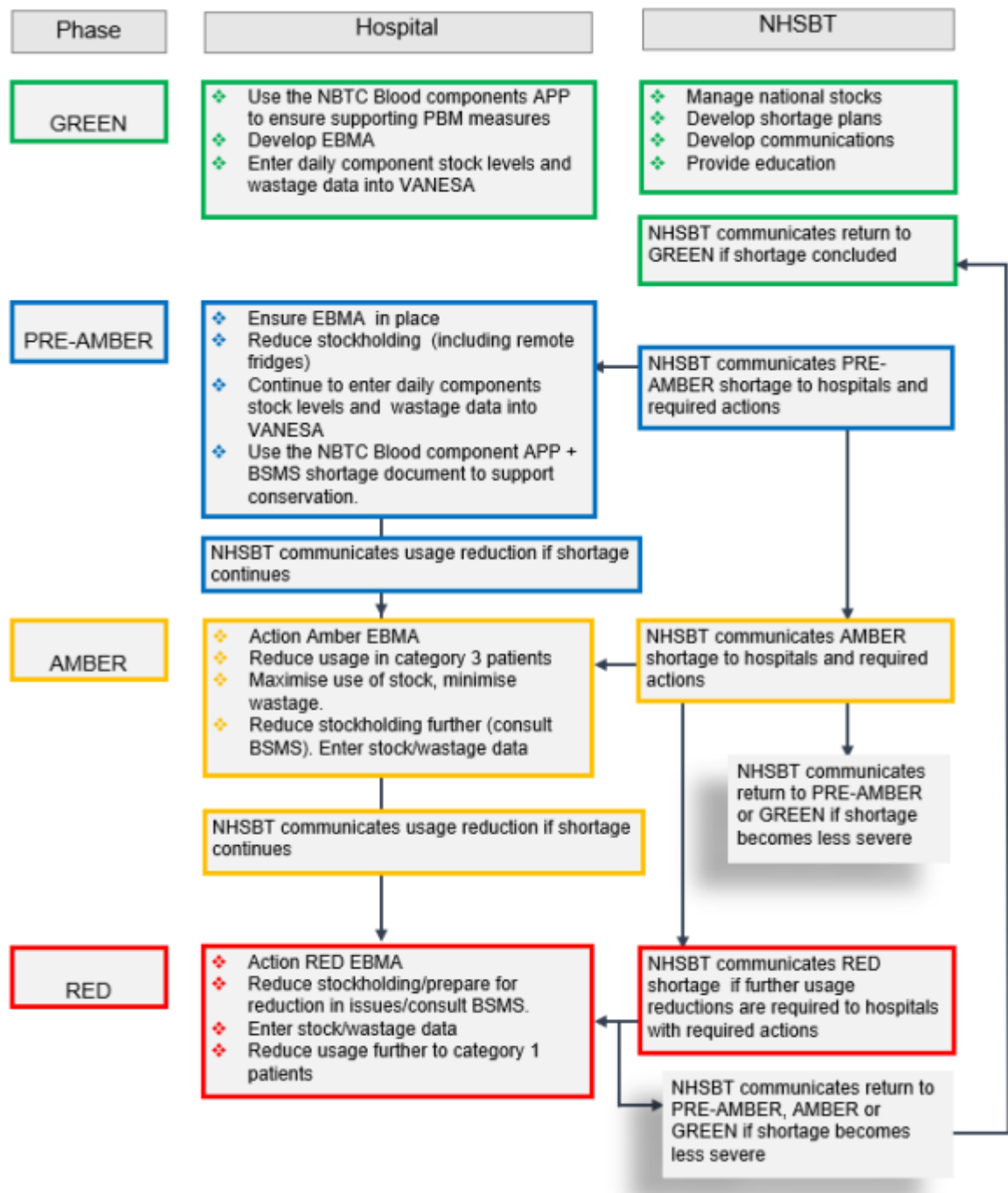
Monitoring the Green phases of the plan will take place through the remit of the HTC and HTT, by ensuring participation in regular national audits of transfusion and local audits in the laboratory and in clinical areas to ensure good transfusion practise.

If there is a need to enact the Amber or Red phases of the plan, then a review meeting of the EBMG will take place after the emergency is over to see if there are any lessons to be learned. If the EBMG recommends any action after an Amber or Red phase, this will be escalated to the HTC and relevant teams. The EBMG will direct the HTT / HTC or other appropriate groups to act on their behalf. Change in practice and lessons to be learned will be discussed at the HTT / HTC meetings. A report summary will be provided to the Trust via Patient Safety Group.

14. References

- [National Blood Transfusion Committee. A Plan for NHS Blood and Transplant and Hospitals to Address Red Cell Shortages. Original version August 2016 updated version March 2020, July 2022, February 2023.](#)
- [Patient Blood Management.](#)
- [BSH Guidelines for the use of platelet transfusions 23 December 2016 Last Review Date: 14 January 2022](#)
- [NBTC indication codes for transfusion](#)
- [VANESA](#)
- [Blood Components APP](#)
- [Guidance on Reduced-Dose Apheresis Platelets](#)
- [SHOT](#)

Appendix 1: Schematic of red cell shortage plan



Appendix 2: Indication for transfusion

OPTIMISE ALL PATIENT BLOOD MANAGEMENT STRATEGIES			
Category 1 (RED Phase)		Category 2	Category 3
<0.5days of stock (RED A)	0.5-1day of stock (RED B)		
<p>These patients will remain highest priority of transfusion</p> <p>Resuscitation Resuscitation of life-threatening /on-going blood loss including trauma. If ongoing major haemorrhage with expected poor prognosis, review appropriateness of continuing transfusion support (see appendix 3).</p> <p>Transfusion-dependent anaemias including thalassaemia Review the need for transfusion and delay if not symptomatic with anaemia.</p> <p>Haemoglobinopathy patients on regular transfusion programmes - follow amber guidance but also increase interval between red cell exchanges or consider using top up transfusion as interim measure.</p>		<p>These patients will not be transfused in the RED phase</p> <p>Surgery*/Obstetrics Cancer surgery (palliative). Symptomatic but not life- threatening post-operative or post-partum anaemia. Urgent*** surgery.</p> <p>Priority 2 and 3 surgeries Consider postponing which is likely to require donor blood support on a case-by-case basis e.g., taking into consideration blood group and correction of anaemia.</p>	<p>These patients will not be transfused in the AMBER phase</p> <p>Surgery* Consider postponing priority 4 surgeries which is likely to require donor blood support on a case-by-case basis e.g., taking into consideration blood group and correction of anaemia.</p>
<p>Surgical*support</p> <p>Priority 1a *procedures can be supported with donor blood with exceptions **</p> <p>Priority 1b emergency procedures CANNOT be supported with donor blood.</p> <p>These should be reviewed on a case-by-case basis e.g., taking into consideration blood group and correction of anaemia.</p>	<p>Surgical*support</p> <p>Priority 1a and 1b Procedures can be supported which are likely to require donor blood support. These should be reviewed on a case-by-case basis e.g., taking into consideration blood group and correction of anaemia.</p>	<p>Non-surgical anaemias Symptomatic but not life-threatening anaemia.</p>	<p>Chronically transfused patients</p> <p>1) Haemoglobinopathy Patients on Red Cell Exchange (RCE) programme</p> <ol style="list-style-type: none"> Reassess use of red cells during previous red cell exchanges to ensure optimising red cell component usage. If available, use the depletion mode in the Apheresis machine if safe to do so and if it results in less blood use. Consider increasing interval for RCE.

			<p>d) Consider top up red cell transfusion post partial exchange to reduce number of red cells needed.</p> <p>2) All Patients (including haemato-oncological patients receiving chemotherapy) Reduce transfusion threshold to 70g/L if no contraindication.</p> <p>3) Maximise use of all PBM measures i.e., Tranexamic acid, use of cell salvage, optimisation of pre-op anaemia, minimise iatrogenic anaemia by limiting blood sampling.</p>
<p>Non-surgical anaemias</p> <p>Continue to transfuse</p> <p>a) in life-threatening anaemia including patients requiring in-utero support and high dependency care/SCBU.</p> <p>b) Stem cell transplantation, or chemotherapy already commenced****</p> <p>Review cadaveric organ transplants and delay, if possible, particularly if large volume of blood may be required i.e., cardiac / liver transplant</p>	<p>Delay starting</p> <p>a. Stem cell transplantation, or chemotherapy</p> <p>b. Living related organ transplantation</p> <p>Delay prophylactic transfusion</p> <p>a. in severe bone marrow failure syndrome if patient not symptomatic with anaemia.</p>		

*[Clinical Guide to Surgical Prioritisation](#) from Federation of surgical Speciality Association

* Emergency – patient likely to die within 24 hours without surgery.

** With the exception of poor risk aortic aneurysm patients who rarely survive but who may require large volumes of blood.

*** Urgent – patient likely to have major morbidity if surgery not carried out.

**** Planned haemopoietic stem cell transplant or chemotherapy may be deferred if possible.


Appendix 3: Emergency Blood Management Arrangement Checklist

Checklist: Emergency Blood Management Arrangements

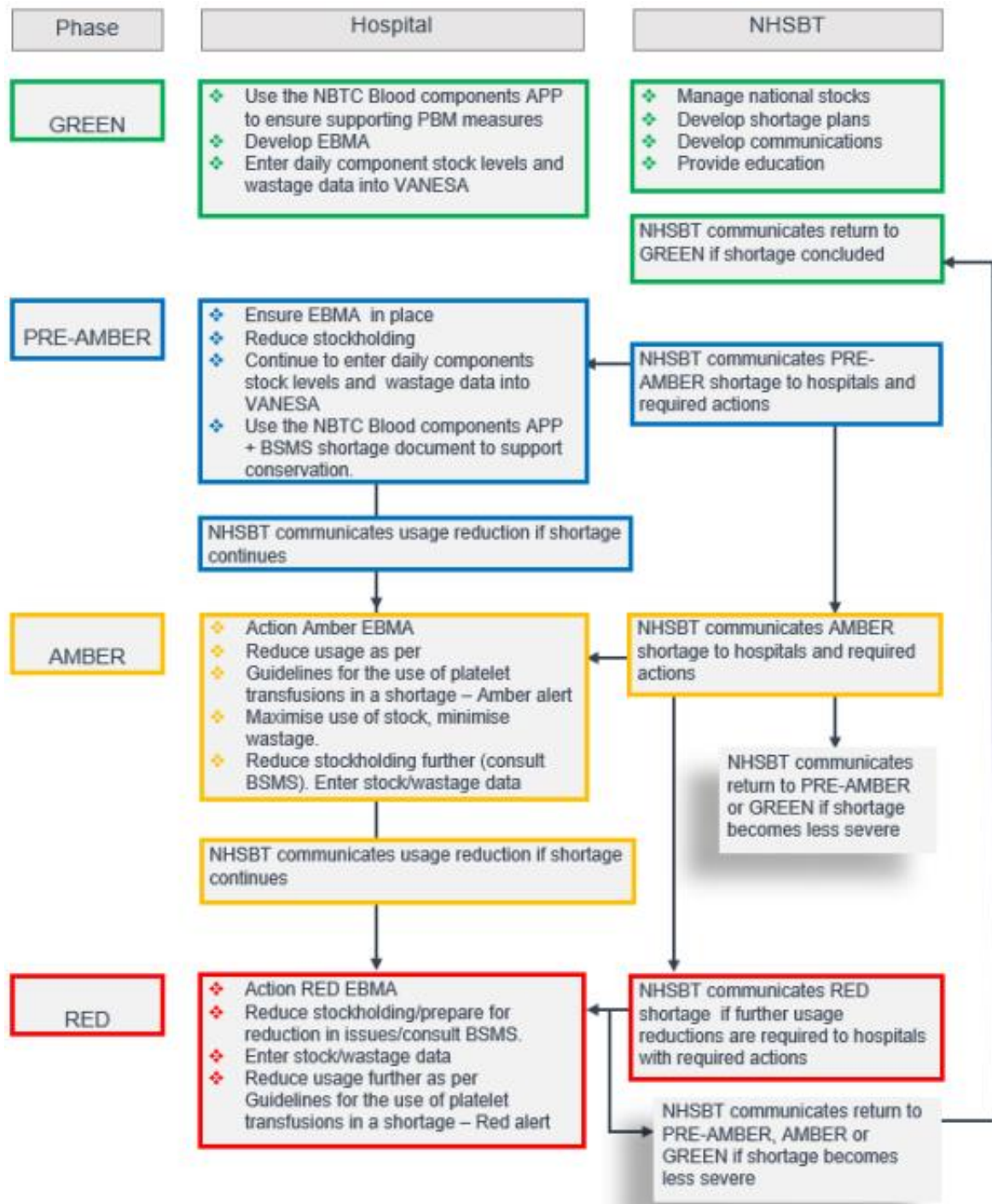
This guidance has been developed in conjunction with the National Blood Transfusion Committee (NBTC) red cell, platelet and plasma shortage plans and aims to create a short and concise series of steps to follow in the case of shortage.



Click on the white boxes to tick each step

<p>Checklist for green <i>This is the business as usual phase of the EBMA</i></p> <p>Clinical teams to ensure:</p> <ol style="list-style-type: none"> your EBMA plan is up to date <input type="checkbox"/> members of Emergency Blood Management (EBM) Group are aware of the plan <input type="checkbox"/> PBM strategies (anaemia treatment, cell salvage, adherence to national indication codes) are followed <input type="checkbox"/> familiarity with trust Emergency Preparedness Resilience and Response (EPRR) plans and command structures <input type="checkbox"/> communications are drafted for use if a move to amber/red is required <input type="checkbox"/> stock confirmation of Anti D, Tranexamic acid, Fibrinogen, Albumin, Lyoplas, Octaplas and Desmopressin - ensure process to order additional stocks is established <input type="checkbox"/> process agreed for the review of appropriateness of blood requests with haematology clinicians as needed <input type="checkbox"/> daily stock levels and wastage are entered into VANESA <input type="checkbox"/> 	<p>Checklist for amber <i>NHSBT will inform transfusion team that amber alert declared.</i></p> <p>General:</p> <ol style="list-style-type: none"> Activate EBMA and convene EBM group <input type="checkbox"/> Prepare to report stock levels and decisions made by EBM group for escalation trust-wide <input type="checkbox"/> Arrange trust-wide communications (screensavers, emails, newsletters) <input type="checkbox"/> Review satellite fridge stock <input type="checkbox"/> Consider pharmaceutical alternatives in appropriate patients with EBM group and disseminate decision <input type="checkbox"/> Contact areas where transfusions may stop <input type="checkbox"/> Reprioritise prophylactic transfusions <input type="checkbox"/> Enter daily stock levels and wastage into VANESA <input type="checkbox"/> <p>Red cells:</p> <ol style="list-style-type: none"> Consider, are all PBM methods being used, review scale up? <input type="checkbox"/> <p>Platelets:</p> <ol style="list-style-type: none"> Use reduced dose platelets (if available) for non bleeding patients <input type="checkbox"/> Consider D positive platelets for D negative patients (cover with anti-D) <input type="checkbox"/> <p>Plasma:</p> <ol style="list-style-type: none"> Consider conserving AB plasma for group AB patients <input type="checkbox"/> 	<p>Checklist for red <i>The move to red phase will be communicated to trusts if there are severe shortages of either red cells, plasma or platelets.</i></p> <p>Complete all amber actions.</p> <p>General:</p> <ol style="list-style-type: none"> Launch rota for senior haematology clinicians to support laboratory in vetting requests <input type="checkbox"/> Update communications to reflect change to red phase <input type="checkbox"/> Remove all stock from satellite fridges except emergency group O from acute areas e.g. ED and maternity <input type="checkbox"/> Contact clinical areas where transfusions will not take place. <input type="checkbox"/>
<p>Checklist for pre-amber:</p> <ol style="list-style-type: none"> Ensure EBMA arrangements in place <input type="checkbox"/> Reduce stockholding (inc. remote fridges) <input type="checkbox"/> Enter daily stock levels and wastage into VANESA <input type="checkbox"/> Use the NBTC Blood component APP to ensure supporting PBM measures <input type="checkbox"/> 	<p>Recovery phase: <i>NHSBT will inform the transfusion team of return to 'green' phase.</i></p> <ol style="list-style-type: none"> Convene the EBM group <input type="checkbox"/> Ensure that change in clinical activity reflects blood stock levels <input type="checkbox"/> Use trust-wide communications to update staff <input type="checkbox"/> 	<p>CLICK HERE for more information</p> 

Appendix 4: Schematic of Platelet Shortage Plan



Appendix 5: Categorisation of Patient types

The following table provides general guidance for the use of platelet transfusions in the context of reduced availability of all platelet groups. Category 1 patients are those with the greatest clinical need for platelet support and therefore should be given priority in Red phase when considering allocation of platelets. In Amber phase, if reduction in usage is required, restrict to using in category 1 & 2 patients. Category 3 patients should be given lowest priority. The use of platelets should be considered as one therapeutic option in the overall management of these patients. Platelet transfusion should be guided by the clinical condition of the patient and by the use of laboratory tests and / or near patient testing if available.

OPTIMISE ALL PATIENT BLOOD MANAGEMENT STRATEGIES			
Category 1 (Red Phase)	Category 2	Category 3 (Amber Phase)	
Patients to be transfused (follow appendix 7 for thresholds)	Patients NOT to be transfused in Red Phase (Follow appendix 7)	Patient to be transfused (Follow appendix 6)	Patient not to be transfused (Follow appendix 6)
<p>1. Resuscitation /Bleeding[▲]</p> <p>a. Resuscitation of life-threatening /on-going blood loss including trauma. If ongoing major haemorrhage with expected poor prognosis *, review appropriateness of continuing transfusion support</p> <p>b. Bleeding in the presence of sepsis/acute DIC, BMF, Immune thrombocytopenia</p> <p>2. Surgery *</p> <p>a. Priority 1a [▲] procedures can be supported with platelets with exceptions **</p> <p>b. Priority 1b emergency procedures CANNOT be supported with platelets if they go ahead.</p> <p>These should be reviewed on a case-by case basis e.g., taking into consideration blood</p>	<p>1. Surgery*</p> <p>a. Cancer palliative surgery.</p> <p>b. Priority 2 and 3 surgeries. Consider postponing surgery likely to require donor platelet support on a case-by-case basis e.g., taking into consideration blood group and correction of thrombocytopenia.</p> <p>2. Critical care patients resuscitated following massive transfusion with no on-going active bleeding</p> <p>3. Non-surgical thrombocytopenia</p> <p>4. Bone marrow failure syndrome on intensive treatment but with no active bleeding</p> <p>5. Invasive procedures</p>	<p>1. Invasive emergency procedure with high-risk bleeding[▲] Use guidance from appendix 6 for thresholds.</p> <p>2. Bone marrow failure* Patients receiving intensive chemotherapy including following allogeneic stem cell transplant. Transfuse with reduced-dose apheresis platelet * (if available) according to Amber thresholds.</p>	<p>1. Surgery* Consider postponing priority 4 surgery which is likely to require donor platelet support on a case-by-case basis e.g., taking into consideration blood group and correction of thrombocytopenia</p> <p>2. Procedures with low-risk bleeding</p> <p>Do not give prophylactic platelet transfusions in:</p> <p>3. Bone marrow failure syndromes Not receiving intensive treatment</p> <p>4. Auto BMT</p> <p>5. Thrombocytopenia congenital/ acquired platelet defects</p>

<p>group and correction of thrombocytopenia.</p> <p>3. Non-surgical conditions</p> <p>a. Thrombocytopenia with bleeding including patients requiring in-utero [▲] support and neonates[▲] in high dependency care/SCBU.</p> <p>b. Patients already started stem cell transplantation*, or chemotherapy* with bleeding or additional risk factors for bleeding</p>			
<p>Consider delay in starting</p> <p>a. Stem cell transplantation or chemotherapy</p> <p>b. Living related organ transplantation</p> <p>c. Cadaveric organ transplants, if possible, particularly if large volume of blood may be required i.e., cardiac / liver transplant</p>			

*[Clinical Guide to Surgical Prioritisation](#) from Federation of Surgical Speciality Associations

[▲]Use standard dose platelets

* Use reduced-dose apheresis platelets

* Emergency; patient likely to die within 24 hours without surgery.

** Except for poor risk aortic aneurysm patients who rarely survive but who may require large volumes of blood.

Appendix 6: Emergency Blood Management Group Terms of Reference

1. Constitution

The group has executive powers for those actions specifically delegated in the Terms of Reference. This group will be convened when an Amber or Red level alert is issued by NHSBT. If convened, the group will report to the Hospital Transfusion Group and the Trust Patient Safety Group.

2. Objective

The Emergency Blood Management Group (EBMG) is responsible for implementing the Emergency Blood Management Plan, assessing the impact of the blood shortage and monitor compliance of the Emergency Blood Management Plan.

3. Membership

- Medical Director, UHDB (Also representing Chief Executive)
- Head of Operations
- Emergency Planning Officer
- T&O Business Unit Clinical Director
- General Surgery & Urology Business Unit Clinical Director
- Specialist Medicine Business Unit 1 & 2 Clinical Director
- Acute Medicine Business Unit Clinical Director
- Cancer Business Unit Clinical Director
- Maternity, Gynaecology Business Unit Clinical Director
- Paediatrics Business Unit Clinical Director
- Anaesthetics & Theatres Business Unit Clinical Lead
- Head, Neck, Eyes and Plastics Business Unit
- Private Patients Business Unit
- Lead Consultant for Transfusion
- Chief Nurse
- Head of Patient Safety
- Chair of HTC
- Blood Bank Manager
- Transfusion Practitioner

If any of the members are unable to attend, they should send a nominated deputy who is familiar with the Policy.

4. Duties / responsibilities:

- Using information regarding the type and severity of the national shortage and the existing requests for blood, the EBMG will decide, in accordance with national guidance, which patients will be supported with blood transfusion.
- Whilst the shortage continues, the EBMG will be responsible for assessing the elective and likely emergency workload expected and ensuring that the best use is made of the blood / platelets available. It is likely that this will require some elective surgery to be cancelled.

- Delegated authority to decide and implement all necessary actions arising from the shortage of blood.
- Decide which categories of patients will have access to blood / platelets.
- Advise on transfusion support for any requests for patients outside of the agreed categories.
- Ensure appropriate communication.
- Define the period for which these arrangements will be in effect and when a review of the situation will be undertaken.
- Ensure a written report is submitted to the Patient Safety Group when the shortage is over, outlining any impact on services and lessons learned including any amendments to the contingency plan.

5. Reporting

The group will report to the Hospital Transfusion Committee who in turn will report to the Trust via Patient Safety Group.

6. Review

The terms of reference of the group will be reviewed together with the Policy.