

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.

Blood and Transplant

Click on the white boxes to tick each step

Checklist for green

This is the business as usual phase of the EBMA

Clinical teams to ensure:

1. your EBMA plan is up to date ☐
2. the members of the Emergency Blood Management (EBM) Group are aware of the plan ☐
3. PBM strategies such as anaemia treatment, cell salvage and adherence to national indication codes are followed ☐
4. familiarity with trust Emergency Preparedness Resilience and Response (EPRR) plans and command structures ☐
5. communications are drafted for use if a move to amber/red is required ☐
6. confirm stocks of Anti D, Tranexamic acid, Fibrinogen, Albumin, Lyoplas, Octaplas and Desmopressin - ensure process to order additional stocks is established ☐
7. process agreed for the review of appropriateness of blood requests with haematology clinicians as needed ☐

Checklist for pre-amber:

1. Ensure EBMA arrangements in place ☐
2. Reduce stockholding (inc. remote fridges) ☐
3. Transfusion staff to enter stock levels daily via VANESA ☐
4. Clinical staff to use the NBTC Blood component APP to ensure supporting PBM measures ☐

Checklist for amber

NHSBT will inform transfusion team that amber stage needs to be actioned if stock falls below 2 days for red cells, 5 days for plasma or 1 day for platelets.

General:

1. Activate EBMA and convene EBM group ☐
2. Prepare to report stock levels and decisions made by EBM group for escalation trust-wide ☐
3. Arrange trust-wide communications (e.g. screensavers, emails, newsletters) ☐
4. Review satellite fridges; is stock still required? ☐
5. Consider pharmaceutical alternatives in appropriate patients with EBM group and disseminate decision ☐
6. Contact areas where transfusions may stop ☐
7. Clinical staff to reprioritise prophylactic transfusions ☐

Red cells: Consider:

1. are all PBM methods being used, review scale up? ☐

Platelets: Consider:

1. D positive platelets for D negative patients (with anti-D) ☐

Plasma: Consider:

1. conserving AB plasma for group AB patients ☐

Checklist for red

The move to red phase will be communicated to trusts if there are severe shortages of either red cells, plasma or platelets.

Complete all amber actions.

General:

1. Launch rota for senior haematology clinicians, used to support the transfusion laboratory and triage requests ☐
2. Update communications to reflect change to red phase ☐
3. Remove all stock from satellite fridges except emergency group O from acute areas e.g. ED and maternity ☐
4. Contact clinical areas where transfusions will not take place. ☐
5. Requests should be vetted by Blood Transfusion Laboratory staff with support from Blood Transfusion Consultant. ☐

Recovery phase:

NHSBT will inform the transfusion team of return to 'green' phase.

1. Convene the EBM group ☐
2. Ensure that change in clinical activity reflects blood stock levels ☐
3. Use trust-wide communications to update staff ☐

[CLICK HERE](#)
for more
information



Resources:

Guide to the prioritisation of patients for red cells

Category 1 These patients will remain highest priority of transfusion	Category 2 These patients will be transfused in the amber but not the red phase	Category 3 These patients will not be transfused in the amber phase
Resuscitation Resuscitation of life-threatening /on-going blood loss including trauma		
Surgical support Emergency surgery* including cardiac and vascular surgery**, and organ transplantation Cancer surgery with the intention of cure	Surgery/obstetrics Cancer surgery (palliative) Symptomatic but not life- threatening post-operative or post-partum anaemia Urgent*** surgery	Surgery Elective surgery which is likely to require donor blood support
Non-surgical anaemias Life-threatening anaemia including patients requiring in-utero support and high dependency care/SCBU Stem cell transplantation, or chemotherapy **** Severe bone marrow failure Transfusion-dependent anaemias including thalassaemia and myelodysplasia Sickle cell disease (SCD) patients on regular transfusion programmes for prevention of complications of SCD Organ transplant	Non-surgical anaemias Symptomatic but not life-threatening anaemia	

* 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 stem cell transplant or chemotherapy may be deferred if possible

Resources:

Guide to the prioritisation of patients for platelets

Category 1 Patients to be treated in red phase	Category 2 Patients to be treated in red and amber phases	Category 3
Massive haemorrhage and critical care Massive transfusion for any condition including obstetrics, emergency surgery and trauma, with on-going bleeding, maintain $> 50 \times 10^9/L$ Aim for $>100 \times 10^9/L$ if multiple trauma or CNS trauma Bleeding in the presence of sepsis/acute DIC, maintain $>50 \times 10^9/L$	Critical care Patients resuscitated following massive transfusion with no on-going active bleeding, maintain $> 50 \times 10^9/L$ Surgery: emergency surgery but not urgent surgery for a patient requiring platelet support Transfusion triggers for invasive procedures According to BSH guidelines	Surgery Elective, non-urgent surgery likely to require platelet support for thrombocytopenia or congenital/acquired platelet defects
Bone marrow failure Active bleeding associated with severe thrombocytopenia or functional platelet defects Immune thrombocytopenia if serious life-threatening bleeding	Bone marrow failure All other indications except those in category 1 or 3	*Bone marrow failure Prophylactic transfusion of stable patients following autologous stem cell transplant
Neonates For preterm neonates with very severe thrombocytopenia (platelet count below $25 \times 10^9/L$) platelet transfusions should be administered in addition to treating the underlying cause of the thrombocytopenia. Suggested threshold counts for platelet transfusions in other situations are given in the BSH guidelines.		

* Prophylactic transfusion category should include WHO grade 1 bleeding (as in TOPPS trial). Exclusions – previous WHO $>$ grade 3 bleed, inherited haemostatic or thrombotic disorder, requirement for therapeutic doses of anticoagulation, acute promyelocytic leukaemia, prior to surgery/invasive procedure.

Resources:

Guide to the prioritisation of patients for plasma

Category 1 These patients will remain highest priority of transfusion	Category 2 These patients will be transfused in the amber but not the red phase	Category 3 These patients will not be transfused in the amber phase
Massive haemorrhage and critical care Massive transfusion for any condition including obstetrics, emergency surgery and trauma, with on-going bleeding Bleeding in the presence of sepsis/acute DIC	Surgery/obstetrics Cancer surgery (palliative) Urgent*** surgery	Invasive procedure Elective procedures which are likely to require plasma support Transfusion triggers for invasive procedures According to BSH guidelines
Surgical support Emergency surgery* including cardiac and vascular surgery**, and organ transplantation Cancer surgery with the intention of cure	Plasma exchange Conditions requiring urgent treatment	Surgery Elective surgery which is likely to require plasma support
Plasma exchange Life-threatening conditions requiring urgent treatment (e.g. TTP)		
Neonates For preterm neonates with very severe coagulopathy and bleeding		
Bone marrow failure Active bleeding associated with severe coagulopathy		

* 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.