A Guide To
Safe Blood Transfusion
Practice

Prescribing of Blood Components

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This Module Is For Medical Staff Only
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Prescribing Blood For The Transfusion

• Currently only registered medical staff can prescribe blood.

• When prescribing blood, you must check if your patient requires CMV negative and/or irradiated blood products and if so, specify these on the prescription chart as well as blood transfusion request form.

Information regarding this can be found on the reverse of blood transfusion request form.
Prescribing Blood For The Transfusion

- Prior to prescribing any blood components, these questions on the ICP must be completed to identify any special requirements.

- Ensure that blood is prescribed on a Blood Transfusion Integrated Pathway, and duration or rate of infusion is specified for each blood component.

- For example, a unit of red cells should generally be infused over 2-3 hours, but always within 4 hours of leaving controlled storage.
Factors To Consider When Prescribing Blood Components

• When a patient is stable, not bleeding and no further bleeding is anticipated then it is appropriate to aim for a post transfusion haemoglobin in the range of 70-90 g/L.

• If the patient is known to have cardiovascular disease, respiratory disease or in the case of some haematology and oncology patients, it is appropriate to aim for a post transfusion haemoglobin in the range of 90 – 100 g/L.

• For elective surgical procedures there is an Optimal Surgical Blood Ordering Schedule (OSBOS) – available on share point.

• Does the patient require CMV negative/irradiated blood Components?

• For Massive Transfusion, activate the UHL massive haemorrhage protocol – available on share point.
**Massive Haemorrhage**

- A **Massive Haemorrhage** is classified as: 50% of TBV loss in 3 hrs or TBV loss < 24 hrs or a rate of blood loss of 150 mls/minute

- The clinician should activate this policy if ≥ 4 units of red cells have been transfused within an hour and similar further need anticipated

**CONTACT BLOOD BANK VIA SWITCHBOARD, DIALLING 2222 AND CLEARLY STATE:**

"I am activating the Massive Haemorrhage Protocol for this patient…"

- Specific blood components will be prepared and issued as ‘packs’ at pre-determined intervals until a ‘stand-down’ is received from the clinical area

The issue of cryoprecipitate, further doses of platelets or FFP should be guided by platelet counts and/or TEG results.

*The Massive Haemorrhage Protocol (MHP) can be found within the UHL Blood Transfusion Policy located on the Intranet.*
Making The Decision To Transfuse

• The decision to transfuse should be based on a careful assessment of the patient’s clinical state as well as their pre-transfusion haemoglobin level.

• Once a clinical decision has been made that a patient requires, the patient must, wherever possible, be made aware of this, and their informed written consent obtained.

• Consent should be documented on a UHL Consent form using the stickers provided on the Blood Transfusion Integrated Care Pathway, located within the clinical area.

• Patients should also be offered a blood transfusion information leaflet at the earliest opportunity.

• It is also essential that the indication for the blood transfusion is clearly documented in patient’s notes.
Factors To Consider When Prescribing Blood Components

• O negative blood should be used for emergencies ONLY. Remember this is uncross-matched blood and has potential risks especially if the patient has atypical antibodies.

• Overnight transfusions should be avoided if possible and should only be used for emergencies as there is a greater risk of error occurring during this time.

• If in doubt, please contact the UHL Blood Transfusion team or refer to the UHL Blood Transfusion Policy, available on INsite.
CMV Negative Blood Components

- CMV Negative patients with haematological malignancy who are likely to undergo an allogeneic Haemopoietic Stem Cell Transplant (Bone Marrow Transplant).

- Recipients of allogeneic Haemopoietic Stem Cell Transplant where both the recipient and the donor is CMV negative (this is not necessary for autologous transplants).

- Blood components transfused to neonates (up to and including the age of 28 days) should receive CMV negative blood components. For pre-term neonates, 28 days cut off should be counted from the EDD (Expected Date of Delivery).

- All intra-uterine transfusions must be CMV negative (and irradiated! – more about Irradiated blood on the next slide).

- Please note that all blood is leuco-depleted and is therefore the risk of CMV transmission is extremely small.
Indications for Irradiated blood Components
(Red cells and Platelets)

- Recipients of Allogeneic or Autologous Stem Cell Transplant
- History of Hodgkins disease (irrespective of how long ago and whether cured)
- Patients who are currently on, or have previously received, Purine analogues (for example Fludarabine, Cladribine, Clofarabone, Nelarabine, Deoxycoformycin, and other drugs such as Anti-Thymocyte Globulin (ATG), Alemtuzumab campath (note this is not an exhaustive list).
- All transfusions within 7 days in advance of autologous stem cell collection (Harvest)
- Transfusions from first or second degree relatives (exceptionally rare scenario) Intrauterine transfusion (IUT)
- Neonatal exchange transfusions (up to and including the age of 28 days – for pre-term neonates this is counted from EDD).
- Top-up red cell transfusions in a neonate with history of IUT
- Suspected or confirmed severe congenital immunodeficiency states (see UHL transfusion policy for a list of conditions included)

FFP and Cryoprecipitate do not need to be irradiated!
O Negative Emergency Red Cells

O Negative Blood can be life-saving in some emergency situations

O Negative red cells are considered to be the ‘Universal Donor’ and in most cases this may be true, but there are exceptions; where possible, patients should always receive blood specifically cross-matched for them.

The emergency O Neg blood is available for immediate use in the blood fridges within UHL, but consider the following;

- **Traceability** (you must complete and return the enclosed form, **this is a legal requirement!**)

By returning the form to Blood Bank, it also ensures the following...

- **Replacement stock** (If Blood Bank are not aware that the O neg blood has been used, how can you reasonably expect it to be replaced in readiness for the next emergency situation..?)
Jehovah’s Witnesses and other Patients Who Refuse Blood Transfusion

• It is patients’ choice as to which blood components, fractionated products or alternatives to allogeneic transfusion is acceptable to him/her. In the case of a Jehovah’s Witness, information can often be found in an advanced directive document carried by the individual.

• It is important to remember that any major elective surgical procedure for a Jehovah’s Witness patient requires careful planning and consideration of various transfusion alternative strategies.

• The UHL policy for the treatment of Jehovah’s witnesses and other patients who refuse blood transfusion is available on INsite.