

LRI Children's Hospital

Platelet Transfusion

Staff relevant to:	Medical & Nursing staff working within the UHL Children's Hospital.
Team approval date:	September 2023
Version:	5
Revision due:	September 2026
Written by:	R Boardman
Reviewed by:	R Coulson & J Sneller
Trust Ref:	C42/2009

1. Introduction and Who Guideline applies to

This standard operating procedure provides guidance to medical and nursing staff caring for children requiring a transfusion of platelets and needs to be used in conjunction with the Trust [Blood Transfusion UHL Policy B16/2003](#)

Related documents:

[Aseptic Non Touch Technique UHL Guideline B20/2013](#)

[Basic Life Support or Choking UHL Childrens Hospital Guideline C2/2016](#)

[ECMO Levitronix CentriMag - Neonatal and Infant UHL Childrens Intensive Care Guideline C110/2016](#)

[Infection Prevention UHL Policy B4/2005](#)

[Consent to Examination or Treatment UHL Policy A16/2002](#)

[Vascular Access UHL Policy B13/2010](#)

NOTE:

- Blood products should not be administered at the same time as any other intravenous medication.
- Transfusion of platelets should be commenced immediately upon their receipt and completed within 4 hours.
- Platelets are kept at room temperature and must never be placed in a fridge.

2. Procedure / Process for Platelet Transfusion

Resources:

- Relevant blood product with valid prescription (using dedicated chart/care pathway)
- Dedicated giving set (includes filter) platelets should be free flowed and not given through an infusion pump
- Personal protection equipment as per IV/infection prevention policy

Procedure / Process for Platelet Transfusion	
No	Action
1	<p>If you administer transfusions at LRI, you will need to ensure that you have had the appropriate training and have a working barcode. This means that you MUST use BloodTrack TX in order to record your transfusion.</p> <p>If BloodTrack TX is not used, you will need to photocopy evidence (from the Blood Prescription Chart) of the final fate of the blood component and send it to the laboratory within 36 hours of it being removed from its controlled storage. If this is not received within this time, a Datix incident will be raised.</p> <p>All clinical areas should have a local BloodTrack cascade trainer who should be your first point of contact. If further help is needed, please contact the BloodTrack training team at bloodtracksupport@uhl-tr.nhs.uk.</p> <p>The platelets must be checked with the patient's identity wristband and the prescription by the individual administering the component BEFORE using the BloodTrackTX system to confirm.</p> <p>If BloodTrack system is unavailable, platelets must be checked against the prescription by 2 qualified children's nurses, at least one of whom must be IV assessed.</p> <p>Baseline observations should be performed prior to collecting the platelets from Blood Bank and should consist of;</p> <ul style="list-style-type: none"> ➤ temperature ➤ pulse ➤ respirations ➤ blood pressure <p>The initial check must include:</p> <ul style="list-style-type: none"> ➤ Correct blood component and expiry date ➤ Compatibility using patient's identity wristband, the prescription and the actual blood component – Positive Patient Identification. ➤ Special requirements e.g. CMV negative, irradiated <p>Carry out a visual inspection of the platelets observing for clumping, discolouration, damage or leaks. Do not use and return to Blood Bank if any of these present.</p>

2	Confirm correct identity of child using name, date of birth and hospital number and blood track system. Ensure written consent has been obtained and clearly documented and filed in patient's notes.
3	If child requires Hydrocortisone and Chlorphenamine prior to transfusion due to previous reactions, ensure that these are prescribed and administered.
4	<p>Prior to commencing platelets, ensure that baseline observations have been recorded or repeated if necessary including -</p> <ul style="list-style-type: none"> ➤ temperature ➤ pulse ➤ respirations ➤ blood pressure <p>Platelets should be free flowed over 30-60 minutes via a dedicated giving set (includes filter). Platelets should not be given through an infusion pump. Observations should be repeated after 20 minutes, one hour and on completion of transfusion.</p> <p>Observe child closely for signs of adverse reaction, especially during the first 15 minutes (see algorithm on reverse of prescription). Follow algorithm if a reaction occurs.</p>
5	<p>If infusion will not free flow, attach 3-way tap, extension set and 50ml Luer lock syringe to end of platelet giving set, draw platelets into syringe. Connect extension set to patient. Close 3 way tap to giving set and give infusion via syringe pump set at highest rate. All of this should be done using ANTT. Repeat process as necessary to complete infusion maintaining closed system.</p> <p>NB: 3-way taps are only kept on critical care areas A syringe driver should be used rather than a volumetric pump as the latter will damage the platelets.</p>
6	<p>For children on ECMO, the transfusion should be given via their IV access wherever possible to minimise the number of times that the ECMO circuit is accessed, recommended platelet counts are given in the ECMO protocols. If it needs to be given via the ECMO circuit, refer to the ECMO protocols and daily parameters sheet as if given into the wrong part of the circuit, platelets may be damaged and therefore ineffective.</p>
7	<p>Document administration of transfusion in child's records, including presence/absence of any reaction and start and finish time.</p> <p>Platelets should be infused over 30 to 60 Minutes.</p>
8	<p>Store used blood bags on ward for 24 hours. These need to be placed in the red transfusion bag with the date used, labelled on the outside. They then need to be disposed of in a Hazardous waste/anatomical waste bin (yellow bin with solid orange lid).</p>

3. Education and Training

Those that give the blood product must have received training on blood track.
One-off competency assessment in Blood Sampling and/or Blood administration.
Mandatory updates are carried out every 2 years.
E-learning modules every 3 years.

4. Monitoring Compliance

What will be measured to monitor compliance	How will compliance be monitored	Monitoring Lead	Frequency	Reporting arrangements
Mandatory training will be undertaken by all members of staff involved in administering blood products.	Monitoring of mandatory training	Ward sisters	Annually	Q&S board

5. Supporting References

Dougherty L and Lister S (eds) (2008) The Royal Marsden Manual Online
7th edition Blackwell Science, Oxford

HeartLink/ECMO Programme (2009) ECMO Levitronix CentriMag protocols
McLelland ,E. (1989) Handbook of Transfusion Medicine H.M.S.O. London.

Trigg E and Mohammed TA (eds) 2006 Practices in Children's Nursing. Guidelines for Hospital and Community 2nd ed Churchill Livingstone Elsevier, Edinburgh

University Hospitals of Leicester Policy on the Administration of Blood Products (2005) Acknowledgments: Gail Faulkner, ECMO Coordinator, Glenfield Hospital

6. Key Words

Platelets, Transfusion

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs. As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS	
Guideline Lead (Name and Title) Jennifer Sneller – Ward Sister Rachael Coulson - Deputy Sister Charge Nurse	Executive Lead Chief Nurse
Details of Changes made during review: Added to perform baseline observations prior to collecting platelets from blood bank. 3 Way taps are no longer available on ward 27, CICU only.	