PEDIATRIC BLOOD AND MARROW TRANSPLANT PROGRAM

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Infusion of Platelets

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PBMT-GEN-041
INFUSION OF PLATELETS

1 PURPOSE

1.1 To outline the procedure and nursing responsibilities for infusing platelets for the Pediatric Transplant and Cellular Therapy Patient.

2 INTRODUCTION

2.1 Blood products include random, directed, and autologous whole blood, red blood cells, platelets, granulocytes, fresh frozen plasma, and cryoprecipitate. Blood products may be administered to pediatric patients through a central line or peripheral line. If a central venous line is unavailable, then in pediatrics, a 24 gauge or larger peripheral catheter size is preferred. Blood products may be infused alone or with normal saline solution.

2.2 Major indications for Platelets: Bleeding from thrombocytopenia or abnormal platelet function.

2.2.1 Action: Improve hemostasis

2.2.2 Special Precautions:

2.2.2.1 Must be irradiated or be a lymphocyte inactivated/leukocyte depleted product.

2.2.2.2 Do not use micro-aggregate filters.

2.2.2.3 Does NOT need to be ABO compatible.

3 SCOPE AND RESPONSIBILITIES

3.1 This procedure provides a consistent approach to infusing platelets.

3.2 Interdisciplinary:

3.2.1 Requires an order placed by a physician or designee in the electronic medical record

3.2.2 Registered Nurses (RNs) may administer blood products after completing a training course, a blood administration test and demonstration of clinical competency with their preceptor.

3.2.3 RNs must re-validate their clinical competency to administer blood products on an annual basis.

3.2.4 Other licensed personnel (advanced practice providers and physicians) may administer blood products after demonstration and validation of clinical competency.

3.2.5 The Medical Director and Nurse Manager are responsible for ensuring that the requirements of the procedure are successfully met.

4 DEFINITIONS /ACRONYMS

4.1 DUH Duke University Hospital

4.2 IV Intravenous

4.3 PPE Personal Protective Equipment

4.4 RN Registered Nurse

5 MATERIALS

5.1 Standard 180µ Micron Filter

5.2 Normal Saline Flush

5.3 Alcohol Prep Pad

5.4 Gloves

5.5 60 ml syringe (for volume reduced)

5.6 Medex tubing set (for volume reduced)

6 EQUIPMENT

6.1 Infusion pump

7 SAFETY

7.1 Wear appropriate Personal Protective Equipment (PPE) for handling of blood products.

8 PROCEDURE

8.1 Patient Assessment

8.1.1 Assess the patient for prior transfusion reactions. Notify clinician if the patient has a history of transfusion reactions.

8.1.2 Assess the intravenous (IV) site for patency.

8.1.3 Assess and record vital signs pre-administration, 15 minutes into transfusion, and at completion of transfusion.

8.1.4 Observe the patient continuously for the first 5 minutes of the transfusion and then hourly for signs and symptoms of transfusion reaction which may include:

8.1.4.1 Fever

8.1.4.2 Chills

8.1.4.3 Anaphylaxis

8.1.4.4 Hypotension

8.1.4.5 Tachycardia

8.1.4.6 Dark or red urine

8.1.4.7 Rash, hives, and/or urticaria

8.2 Obtaining, Verifying, and Administrating Platelet Product:

8.2.1 Refer to the related hospital policy for complete administration instructions. (Duke University Hospital (DUH) Blood Product Administration Policy).

8.2.2 Verify physician or designee order.

8.2.3 Order desired product in the electronic medical record.

8.2.4 Administer pre-medications, if ordered, when patient and blood product are available for transfusion.

8.2.5 Release and dispense product in the electronic medical record for product to be delivered to the unit.

8.2.6 Verify all identification information at bedside by two licensed professionals (one an RN) upon receipt of product.

8.2.7 Complete the blood product verification co-signature in the electronic medical record under the "Blood Administration" tab

8.2.8 Return the product to Transfusion Services for any discrepancies.

8.2.9 Verify the following identification information:

8.2.9.1 Patient's name and medical record number on armband matches with the Transfusion Report Form and the Compatibility Label on the product bag.

8.2.9.2 Product name, identification numbers/letters, donor ABO blood types and Rh factor on the bag label matches the Transfusion Report Form.

NOTE: Platelets DO NOT have to be ABO compatible.

8.2.9.3 Expiration date and time on the product and on the form. Dates on the product tag and the form may be separate dates but neither should have expired.

8.2.9.4 Special orders are met (irradiated, leukoreduced, volume reduced etc)

8.2.10 Transfuse platelet product within 4 hours of the time dispensed from the Transfusion Service (on Blood Component Request Form). Return the product to the Transfusion Service immediately if the order to transfuse is canceled.

8.2.11 Obtain vital signs per protocol.

8.2.12 Don gloves.

8.2.13 Spike the platelet bag with appropriate tubing and filter. Prime the tubing.

8.2.14 If platelets are volume-reduced, spike the bag with appropriate tubing and filter and draw up in 60 mL syringe, prime Medex tubing and infuse via syringe pump.

8.2.15 Clean central line catheter cap with alcohol prep pad

8.2.16 Clear the infusion line with Normal Saline Flush (3-5 mL). Medications or solutions other than Normal Saline (0.9%) may not be added to blood products or infusion lines.

8.2.17 Connect tubing to patient's infusion access and administer platelets via straight drip or as ordered by physician. Platelets typically infuse over 1 hour. However, in smaller children and infants < 10 kg, the volume infused should not exceed a rate of 5 mL/kg/hour.

8.2.18 After infusion complete, flush central line with 5 mL normal saline (0.9%). Reconnect IV tubing or heparin lock central line as indicated.

8.2.19 Discard tubing and platelet bag in hazardous waste container.

8.3 Documentation

8.3.1 Once the transfusion is complete and documentation is complete, Transfusion Report Form should be placed in a shred-it box.

8.3.2 Record vital signs and blood product volume in EPIC under Blood Administration tab.

8.4 Reportable Conditions

Reportable Condition	Action
Hypotension Anaphylaxis Chills Temperature Elevation >1 degree Celsius Dark or Red Urine Tachycardia Dyspnea	Stop the transfusion, notify the physician, and follow instructions for transfusion reaction on the Transfusion Report Form
Rash and Hives	Stop transfusion. Contact physician or designee regarding antihistamine administration and follow instructions on the Transfusion Report Form.

9 RELATED DOCUMENTS/FORMS

9.1 Transfusion Report Form (M3902)

9.2 PBMT-GEN-043 Use of Lab-Line Maxi Rotator

9.3 Duke University Hospital (DUH) Blood Product Administration Policy, Current Edition

10 REFERENCES

10.1 Accreditation Requirements Manual of the American Association of Blood Banks, Current Edition

10.2 Duke Hospital Blood Administration Policy, Current Policy

10.3 The American Association of Blood Banks Technical Manual, Current Edition

11 REVISION HISTORY

Revision No.	Author	Description of Change(s)
08	Sally McCollum	Scope and responsibilities updated for consistency across procedures. Section 8: Addition of related policy: Duke University Hospital (DUH) Blood Product Administration Policy

Signature Manifest

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