North Carolina Baptist Hospital (NCBH)

Lexington Medical Center (LMC)

Davie Medical Center (DMC)

Wilkes Medical Center (WMC)

High Point Medical Center (HPMC)

Westchester

Clemmons

**Procedure Statement**

The purpose of this policy is provide guidelines for the selection of blood and blood components to ensure patient safety and take into consideration the urgency of the need and the age of the patient.

**Scope**

Protocol owner/Implementer: Blood Bank Management

Protocol prepared by: JH Simmons

Who performs protocol: Department staff/management

**Definitions**

Policy: As defined in the Policy on Creating and Amending Policy, a statement of principle that is developed for the purpose of guiding decisions and activities related to governance, administration, or management of care, treatment, services or other activities of WFBH.  A policy may help to ensure compliance with applicable laws and regulations, promote one or more of the missions of WFBH, contain guidelines for governance, and set parameters within which faculty, staff, students, visitors and others are expected to operate.

WFBH Lab System: Wake Forest Baptist Lab System is a health system that includes Wake Forest Baptist Medical Center and all affiliated organizations including Wake Forest University Health Sciences (WFUHS), North Carolina Baptist Hospital (NCBH), Lexington Medical Center (LMC), Davie Medical Center (DMC), Wilkes Medical Center (WMC), High Point Medical Center (HPMC), Lab at Westchester and Lab at Clemmons.

HPA: Human Platelet Antigens

HLA: Human Leukocyte Antigens

Avoid Antigens: HLA antibody screen is positive in patient and HLA antibodies are identified. Avoid donor platelets that have the antigen corresponding to the antibody.

PCW: Patient Caution Window

Low Volume Red Cells: Low volume units are units collected when 300-404mL of WB is collected in a bag with anticoagulant volume calculated for 450 (±45mL) or 333-449 mls of WB is collected into a bag with anticoagulant volume calculated for 500 (±50mL). These collections reflect altered anticoagulant to rbc raito and can only be used for RBCs (plts and plasma cannot be prepared from these collections). Evidence indicates that the volume in under collected units does not affect the in-vivo RBC recovery after 21-35 days of storage.

1. Trauma / Emergency Release situations
   1. Trauma patients found to be Rh negative **after** the administration of Rh positive red cells may receive Rh positive red cells until anti-D is detected.

*Refer to Emergency Blood Protocols*

* 1. Patients with known clinically significant antibodies must have antigen negative blood units. A full crossmatch, including Antiglobulin phase must be performed using the same media in which the antibody was identified.
  2. Exception: when commercial antisera is not available, the crossmatch test will be tested with extended incubation and only crossmatch compatible units will be issued for transfusion.

*Refer to Crossmatch Protocols*

* 1. Short dated products can be given to all patient types (excluding neonates). Example: If order is 2 units of RBC, you can fill order with short dated RBCs.

1. Low Volume Red Cells
   1. Store on designated shelf, separated from regular red blood cell inventory
   2. Acceptable for use in bleeding patients. Example: trauma, MTP, OR cases.
2. **Selection of Blood Components**
3. **Selection of Blood and Blood Components in MTP, MOH, Emergency Issue**
   1. Low volume red cell units (E5242) are acceptable for use in Trauma / MTP situations.

**FOR ALL SCENARIOS: IF PLATELETS MEETING STATED CRITERIA ARE NOT AVAILABLE, CHOOSE GROUP A FOLLOWED BY ANY GROUP**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **MALE ≥16yr**  **FEMALE ≥51yr** | **WB** | **RBC** | **LIQUID PLASMA** | **PLASMA** | **PLATELET** | **CRYO** |
| **O POS** | **O POS** | **A** | **A** | **ANY ABO/RH** | **ANY ABO/RH** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **FEMALE 16-50yr**  **MTP / EMERGENCY**  **OR**  **AGE / SEX UNKNOWN**  **in ADULT ED** | **WB** | **RBC** | **LIQUID PLASMA** | **PLASMA** | **PLATELET** | **CRYO** |
| **O NEG** | **O NEG** | **A** | **A** | **ANY ABO**  **RH NEG** | **ANY ABO/RH** |
| **MOH** | **DO NOT GIVE** | **O NEG** | **DO NOT GIVE** | **A** | **ANY ABO**  **RH NEG** | **ANY ABO/RH** |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **MALE**  **“ADULT”**  **PEDS**  <16yr ≥50kg/110lb | **Ask**  **for**  **WEIGHT!** | **WB** | **RBC** | **LIQUID PLASMA** | **PLASMA** | **PLATELET** | **CRYO** |
| **O POS/NEG** | **O POS** | **A**  if in Adult ED  **AB/A**  if in PEDS ED | **A**  if in Adult ED  **AB/A**  if in PEDS ED | **ANY ABO/RH** | **ANY ABO/RH** |
| Use A Plasma if AB not available | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **FEMALE**  **“ADULT”**  **PEDS**  <16yr ≥50kg/110lb | **Ask**  **for**  **WEIGHT!** | **WB** | **RBC** | **LIQUID PLASMA** | **PLASMA** | **PLATELET** | **CRYO** |
| **O NEG** | **O NEG** | **A**  if in Adult ED  **AB/A**  if in PEDS ED | **A**  if in Adult ED  **AB/A**  if in PEDS ED | **ANY ABO**  **RH NEG** | **ANY ABO/RH** |
| Use A Plasma if AB not available | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PEDIATRIC**  4m + 1day – 15yr  <50kg  **OR**  **AGE / SEX UNKNOWN**  **in PEDS ED** | **WB** | **RBC** | **LIQUID PLASMA** | **PLASMA** | **PLATELET** | **CRYO** |
| ULTRA LOW TITER  **O NEG**  ≥3y, ≥15kg | **O NEG** | **DO NOT GIVE** | **AB** | **AB NEG** | **ANY ABO/RH** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NEONATE**  **≤4m** | **WB** | **RBC** | **LIQUID PLASMA** | **PLASMA** | **PLATELET** | **CRYO** |
| **DO NOT GIVE** | **O NEG** | **DO NOT GIVE** | **AB FFP** | **AB NEG** | **AB** |
| Irradiation NOT required for ER / MTP Notify Medical Director if incompatible PLTS are given  Consult with Pathologist on call if CRYO meeting criteria is not available | | | | | |

**MISSING PRODUCTS: Communicate to the patient’s care team and follow up when product is ready.**