**Purpose:**

To describe the Harborview Medical Transfusion Service’s policy for the storage and transport of blood products.

**Policy:**

|  |  |  |
| --- | --- | --- |
| **Step** | **Action** | **Related Documents** |
| **General Statements** | | |
| **1** | * The Transfusion Service is responsible for maintaining the appropriate storage conditions for blood products while they are in TSL or in a monitored portable blood refrigerator. * While in the TSL, red blood cells and thawed plasma will be stored in Refrigerators R1, R3, or R4. | * Table A: Blood Product Storage Temperatures * Critical Equipment List |
| **2** | * Red blood cells (RBCs), thawed plasma and liquid plasma will be stored in monitored refrigeration between 1º C and 6º C, in an effort to reduce the risk of bacterial contamination. These components must not be out of monitored refrigeration for more than 30 minutes. | Critical Equipment List |
| **3** | * Platelets will be stored and agitated in a controlled environment between 20-24 °C, in Platelet Incubator Helmer #1 or Helmer #2. |  |
| **4** | * Frozen Plasma and Cryoprecipitate will be stored in monitored freezers, F1 or F2, ≤-18°C | Critical Equipment List |
| **5** | * Only TSL staff is authorized to remove a blood product from Lab storage locations. * Clinical staffs assigned to patient care are allowed to remove products from a portable refrigerator for a specific patient in their care during a massive transfusion event. Units removed from or returned to a portable refrigerator must be logged on the portable refrigerator log | Using Portable Blood Refrigerators |
| **Organization of Units** | | |
| **1** | * Older blood products will be moved to the front with fresher products stored in the rear. |  |
| **2** | * Autologous and Directed blood products will be segregated from the general allogeneic inventory. There will be no “crossing over” of autologous or directed components to the general inventory. |  |
| **3** | * RBCs will be initially sequestered on the Type Confirmation Incomplete shelf until appropriate ABO/Rh testing has been completed. |  |
| **4** | * Red Blood Cells and Platelets will be organized by ABO and Rh type. |  |
| **5** | * Plasma will be organized by ABO type. Rh type is not applicable in plasma or cryoprecipitate selection. |  |
| **6** | * Units selected and labeled for EMERGENCY transfusion will be segregated from the general inventory. |  |
| **Step** | **Action** | **Related Documents** |
| **7** | * Units allocated for specific patient use will be stored: * In alphabetical order by patient last name separate from the general inventory * In outdate order, oldest first within patient group |  |
| **8** | * Products with transfusion tags will be stored:   + In alphabetical order by patient last name.   + In outdate order, oldest first within patient group |  |
| **Special Inventory Locations** | | |
| **1** | Designated quarantine areas will be maintained for each temperature storage range. |  |
| **2** | Specific holding areas may be designated for special units. Example: antigen negative units for a scheduled sickle cell exchange procedure. |  |
| **3** | Units awaiting physician acceptance will be in a designated location. |  |
| **4** | Granulocytes require 20 – 24 °C **without** agitation. They will be kept in the designated RT storage area between temperature stabilizers while not being tested or processed. |  |
| **Portable Monitored Refrigeration** | | |
| **1** | Products to be issued in a portable refrigerator include:   * Stock uncrossmatched group O RBCs & stock thawed AB plasma. * Plasma issued for therapeutic plasma exchange (TPE). * > 2 crossmatched units of RBCs. * > 4 units of plasma. * ***NOTE:*** *Ask the clinician if a portable monitored refrigerator is necessary whenever more than 2 units of blood products are requested at the same time.* |  |

**Table A: Temperature for Blood Product Storage and Transport:**

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| --- | --- | --- | --- |
| **Blood Product** | **Storage Temperature (°C)** | **Transport Temperature (°C)** | **Related Documents** |
| Red Blood Cells | 1-6 | 1-10 | * Packing Blood Products for Transport |
| Frozen Plasma and Cryoprecipitate | ≤ -18 | Maintain Frozen State |
| Thawed Plasma  Fresh Frozen Plasma, thawed  Liquid Plasma | 1-6 | 1-10 |
| Platelets with agitation | 20- 24 | 20- 24 |
| Thawed Cryoprecipitate without agitation | 20- 24 | 20- 24 |
| Granulocytes without agitation | 20- 24 | 20- 24 |

**References**

Standards for Blood Banks and Transfusion Services, Current Edition, American Association of Blood Banks, Bethesda, MD