**PURPOSE:**

This procedure provides instructions for receiving routine blood products into the UWMC Transfusion Services Laboratory. Entry into the LIS and recording visual inspection are described. Donor segment retention and routing of donor samples for testing is also described.

**PRINCIPLE & CLINICAL SIGNIFICANCE:**

Receipt of blood products from a blood supplier is achieved through observation of packaging to maintain temperature, comparison of order quantities against quantities received, entry of the product into the LIS for tracking and a documented visual inspection of the blood product. When RBC containing products (whole blood, RBCs or granulocytes) are received, donor segment retention and ABO/Rh type confirmation are also required prior to making units available for allocation and issue.

**POLICIES:**

* Donor segments are retained for a minimum of two months
* Any shipments with questionable storage conditions must have the temperature verified and documented prior to accepting the shipment into inventory
* Donor units must be processed in a manner such that time out of controlled storage conditions is limited
* RBC containing products must be segregated from available inventory until the type confirmation is complete

**SPECIMEN REQUIREMENTS:**

NA

**REAGENTS/SUPPLIES/EQUIPMENT:**

|  |  |  |
| --- | --- | --- |
| **Reagents:** | **Supplies:** | **Equipment:** |
| None | * Test tubes * Plastic bag * Retention date labels * Test tube rack * Scissors | LIS with scanner |

**QUALITY CONTROL:**

NA

**INSTRUCTIONS:**

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**Accepting Delivery**

|  |  |
| --- | --- |
| **STEP** | **ACTION** |
| **1** | Ensure shipment is delivered to the correct delivery location   |  |  | | --- | --- | | **If delivery location is** | **Then** | | Correct | * Sign courier log if required | | Incorrect | * Inform courier and supplier of wrong location * Do not sign for shipment or accept shipment | |
| **2** | Communicate to courier any boxes and/or other items to be returned to blood supplier |

**Inspection of Blood Shipment**

| **STEP** | **ACTION** |
| --- | --- |
| **1** | Open the shipping container and time stamp or write the date and time of delivery on the packing slip as soon as possible upon opening the box |
| **2** | Verify contents are packed appropriately and shipment appears undamaged   |  |  |  | | --- | --- | --- | | **If** | **Packing condition** | **\*Temp Range** | | Red Blood Cells | Wet ice is present | 1-10° C | | Platelets, Granulocytes | Room temperature stabilizing packs | 20-24°C | | Fresh Frozen Plasma, Cryoprecipitate | Dry Ice is present | < -18°C |   **\*** If temperature is in question, verify the product transport temperature to ensure the range has not been exceeded |
| **3** | | **If** | **Then** | | --- | --- | | Shipment acceptable | * Go to next step | | Temperature not maintained, shipment leaking or otherwise damaged | * Notify shift lead or manager and complete QIM Report * Notify blood supplier regarding the issue  | **If** | **Then** | | --- | --- | | Temp not OK | * Use a NIST calibrated thermometer to verify the temperature by placing the thermometer between two components (if possible) or sandwich the single product and read temperature after 3-5 minutes * Record shipment temperature or other shipment issue on the packing slip * Quarantine all products if not immediately returned to supplier (refer to SOP *Quarantine and Final Disposition of Blood Products)* | | Shipment leaking | * Find source of the leak * Record the condition of the box on the packing slip * Quarantine all products if not immediately returned to supplier (refer to SOP *Quarantine and Final Disposition of Blood Products)* | | |
| **4** | Compare the components shipped with those listed on the packing slip and verify the following:   * Unit numbers match * Components received match the order placed * Notify shipper if any discrepancy is noted |
| **5** | Inspect each component according to the SOP *Visual Inspection of Blood Products*   |  |  | | --- | --- | | **If visual inspection** | **Then** | | Passes | Continue to next step | | Doesn’t pass | * Quarantine all products in the shipment until further investigation is complete * Notify shift lead or manager and complete QIM Report | |
| **6** | For any blood products received that have antigen typing(s) on label or tag:   |  |  | | --- | --- | | **If person performing entry is a** | **Then** | | MLS | Proceed to step 7 | | Not MLS | * Do not proceed with Blood Entry process for antigen typed unit(s) * Give unit(s) to a MLS to perform Blood Product Entry and further testing * Antigen types must be entered using appropriate Ab/Ag codes in SQ | |
| **7** | |  |  | | --- | --- | | **If** | **Then** | | Receiving Platelets, Cryo, Plasma | Go to next section: Blood Product Entry in LIS | | Receiving RBCs and Granulocytes | * Remove 2 segments from each unit * Label one segment with a unit # sticker and place in a dated storage bag for retention * Place one segment in a glass tube labelled with unit # and blood type for ABO/Rh confirmation. See SOP *Unit Type Confirmation* * Go to next section: Blood Product Entry in LIS | |

**Blood Product Entry in LIS**

|  |  |
| --- | --- |
| **STEP** | **ACTION** |
| **1** | Open the ‘ Blood Product Entry’ (BPE) function in Sunquest (SQ)   |  |  | | --- | --- | | **If receiving** | **Then** | | Any component with antigen typing on the label or attached tag | * Only MLS staff may receive these components in SQ * Antigen types must be entered using appropriate Ab/Ag codes in SQ and only MLS staff may receive these products in SQ | | Autologous, Directed or HLA matched components | * Segregate these from other components * Receive individually in SQ and add the intended recipient as an assignee using the recipient’s MRN   **NOTE:** If the patient does not have a MRN assigned in the LIS/HIS, quarantine the product and contact the ordering provider to obtain a pre-registration MRN for assignee purposes in Sunquest. The provide will need to register the patient if a MRN is not available. | | All other components | * Go to next step | |
| **2** | Open the ‘ Blood Product Entry’ (BPE) in Sunquest (SQ) |
| **3** | Scan the following barcodes from the component label   * Unit #  |  |  | | --- | --- | | **If facility ID is** | **Then** | | Recognized | Go to next step | | Not recognized | Choose OTHER for supplier |  * Product Type * ABO/Rh * Expiration Date/Time * CMV negative barcode, if applicable |
| **4** | Enter the component volume from the label for all products except single donation RBCs that should autofill with 350ml |
| **5** | Add additional information when applicable   |  |  | | --- | --- | | **If** | **Then** | | Unit is low titer plasma | * Select the “Ag/Ab/Attribute” tab * Type **LTP** in the Antigen/Antibody box * Click <Add> | | Supplier was entered as “Other” in step 2 | * Select the “Comments” tab * Enter the collection facility name in the free text box – do not add a comment code * Click <Add> | |
| **6** | Visually inspect the component according to the SOP *Visual Inspection of Blood Components*   |  |  | | --- | --- | | **If visual inspection** | **Then** | | Passes | * Select PASS from the drop down menu * Continue to next step | | Does not pass | * Do not receive component into inventory * Contact the supplier and return or discard the component as instructed   **NOTE**: If the supplier does not want the component returned, receive the component in Sunquest, fail the visual inspection, and discard and dispose of appropriately. | |
| **7** | Click the “Add” button closest to the “Unit Summary List” to allow batch entry of similar products |
| **8** | Repeat steps 2-7 for each unit in the batch and click SAVE |
| **9** | Compare the units listed on the screen with the packing list and ensure all information matches |
| **10** | * Click <SAVE> * Click <EXIT> |
| **11** | Record the Worklist # for use in performing and documenting the ABO/Rh unit confirmation |
| **12** | Place components in the appropriate storage area for the component type |
| **13** | File the packing list in the appropriate file for verification of billing from the supplier |
| **14** | |  |  | | --- | --- | | **If** | **Then** | | Platelets, plasma or cryoprecipitate(non-cellular products) | No further action needed | | RBCs or Granulocytes | Route the segments to the testing area for ABO/Rh type confirmation (refer to SOP *Unit Type Confirmation*) | |

non

**CALIBRATION:**

NA

**NOTES AND LIMITATIONS:**

* Care must be taken to ensure that units are not out of monitored storage conditions for a prolonged time to prevent products from exceeding the acceptable temperature ranges.
* Apheresis RBC units must be tested manually and labelled with the product code or container # in addition to the unit #
* Some products must be entered into BPE separately. Examples include: Autologous, Directed and HLA-matched. These types of units should be sequestered and entered accordingly.

**REFERENCES:**

* Technical Manual. Bethesda, MD: AABB Press, current edition
* Standards for Blood Banks and Transfusion Services. Bethesda, MD: AABB Press, current edition

**RELATED DOCUMENTS:**

SOP Quarantine and Final Disposition of Blood Products

SOP Visual Inspection of Blood Components

SOP Unit Type Confirmation Using Tube Method

SOP Specimen and Unit Segment Management

**APPENDIX:**

NA

|  |  |  |  |
| --- | --- | --- | --- |
| **UWMC SOP Approval:** | | | |
|  |  |  |  |
| **UWMC CLIA Medical Director** |  |  |  |
|  | Mark H. Wener, MD | Date |  |
|  |  |  |  |
| **Transfusion Service Manager** |  | Date |  |
|  | Deanne Stephens |  |  |
|  |  |  |  |
| **Compliance Analyst** |  | Date |  |
|  | Christine Clark |  |  |
| **Transfusion Service**  **Medical Director** |  | Date |  |
|  | Monica B Pagano, MD |  |  |
|  |  |  |  |
| **UWMC Biennial Review:** | |  |  |
|  |  |  |  |
|  |  | Date |  |
|  |  |  |  |
|  |  | Date |  |
|  |  |  |  |

**REVISION HISTORY**:

04/22/2018: Updated to include changes due to Sunquest 8.1 upgrade. Most significant change is the visual inspection of each blood component can now be documented at the time the component is received into the LIS (Laboratory Information System). The Recording Visual Inspection Section of version PC-0016.01 was removed.