**Purpose:**

To describe the Harborview Medical Center (HMC) Transfusion Services Laboratory (TSL) support of Airlift Northwest (ALNW) transfusion needs.

**Policy:**

HMC TSL will be responsible for the following processes:

* Support ALNW with universal blood products for use on patients during transportation
* Stock and maintain the Credo Coolers. Unopened blood coolers will be rotated weekly or after 24 hours cumulative time outside monitored storage. Opened coolers will be replaced as soon as possible
* Perform validation and ongoing quality control on Credo coolers and temperature recorders
* Ensure attached paperwork is complete per process listed below
* Audit trail for units transfused by ALNW will be completed in Sunquest (SQ)
* Provide ALNW with any recall and lookback notifications on units given by ALNW for patients transferred to outside facility
* Document any reported transfusion reactions in SQ and notify TSL Medical Director

Airlift Northwest will be responsible for the following processes:

* Train ALNW staff who will be using the Credo cooler and administering blood
* Maintain annual competency requirements on ALNW staff
* Maintain and store the cooler at appropriate temperature, documenting the times in and out of monitored storage
* Keep the contents of the cooler closed at all times until ready to transfuse
* Return cooler to HMC TSL when cooler has been opened, weekly, after 24 hours cumulative time outside monitored storage, or when requested by HMC TSL.
* Notify TSL when units have been transfused and provide relevant patient information and flight number information to maintain audit trail
* Follow up with any Recall and Lookback that may occur as a result of the units that have been transfused. ALNW Medical Director will be responsible for notifying patient as appropriate.
* Follow up with any transfusion reaction that may occur following transfusion with ALNW Medical Director

**Procedure:**

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| **Step** | **Action** | **Related Documents** |
| **Overview** | | |
| 1 | TSL prepares and delivers a Credo Cooler with 2 RBCs and 2 liquid plasma. *Five day plasma may be substituted due to inventory limitations.* | Table A |
| 2 | Airlift Northwest considers Credo Cooler a critical supply and will carry this on flight per ALNW protocol. |  |
| 3 | Upon Credo Cooler use or reaching time to switch, TSL is notified to prepare a replacement Credo Cooler. |  |
| **Step** | **Action** | **Related Documents** |
| **Overview (continued)** | | |
| 4 | TSL assesses returned cooler inventory via a data logger and fluke thermometer for return to inventory or quarantine/discard. Transfused unit audit trails are recorded in LIS. | Credo Cooler Log |
| 5 | Cooler remains refrigerated at ALNW and is validated for:   * 7 days in refrigerator, unopened * 24 hours outside refrigerator (cumulative), unopened | Credo Cooler Validation Plan  Credo Cooler VIP replacement Validation Plan |
| 6 | Issues related to ALNW will be directed to a TSL Lead or Manager. ALNW will provide a contact person to aid in problem resolution. |  |
| 7 | ALNW cooler time in/out log is on paper and is submitted to HMC ED upon request. |  |
| 8 | Transfusion Reactions occurring inflight will be communicated to TSL upon arrival at HMC. Investigation will be performed per current SOPs. | Transfusion Reaction Investigation |

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| **Credo Cooler Inventory Management** | | |
| 1 | Select and prepare blood components per SOP.   * All blood products must have different unit #s. Do not place products from same donor in one cooler. | Using the Credo Series 4 EMT Coolers |
| 2 | Prepare replacement cooler every 7 days **or**:   * Cooler that has been removed from monitored storage for greater than 24 cumulative hours * Cooler that has been opened * 2 days prior to shortest dated product in cooler |
| 3 | Transport to ALNW site will occur via   * ALNW Courier once a week or 24 hours outside monitored refrigeration, review schedule posted in front of lab * With ALNW team after delivering patient with Credo cooler to HMC ED or used at outside facility   + TSL requires 30 minutes to prepare Credo Cooler * Via contracted courier service if no ALNW courier or flight available | ALNW Credo Cooler Transport Schedule |
| 4 | Perform return. | Using the Credo Series 4 EMT Coolers |

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| **Processing Returned Coolers** | | |
| 1 | Process returned RBCs and plasma per SOP | Using the Credo Series 4 EMT Coolers  SQ Blood Status Update  SQ Blood Location |
| 2 | Complete audit trail in SQ for transfused blood products:   * Admitted to HMC: See Table B * **Not** Admitted to HMC: See Table C. Get flight # from ALNW personnel and document on Credo Cooler Log | SQ Order Entry  SQ Blood Order Processing  Table B  Table C |
| 3 | For transfused units, complete Blood Order Processing:   * Process the ER and/or TFFP order(s) per SOP   + All RBC units are to be issued uncrossmatched using the ER battery even if patient is admitted to HMC and has a TSCR sample collected   + Attach modifier ;ALNW to both batteries * Transfused units are not moved back to the “H” location in order to allocate and issue in SQ BOP.   Perform Blood Product Issue:   * Issue Date/Time: written on card in TIME OUT or provided by ALNW * Issued location: ALNW * Issued to: “removed by” name * Issue Comments: Cooler number   Complete paperwork:   * **Patients admitted to HMC:** * Send post Transfusion Record to Enterprise Records and Health Information (ERHI) * Send original transfusion record to ERHI, ensure patient identifier has been added * **Patients not admitted to HMC:** * Staple post Transfusion Record and original Transfusion Record to Credo Cooler Log * **All Patients:** * Staple unit cards to Credo Cooler Log.   *NOTE: ALNW has a separate transfusion record. ALNW will return all Transfusion Records to TSL.*   * Discard unit segments from the Blood Location Rack. * Once reviewed by 2nd person, completed log is filed in the Trauma Log notebook. | SQ Blood Order Processing  SQ Blood Product Issue |

**Table A: Credo Cooler Quantities**

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| **Quantity** | **Product** | **ABO/Rh** |
| 2 | RBC | O NEG |
| 2 | Plasma | Low titer group A or group AB |

**Table B: Creating ALNW Patient Record in Sunquest when Patient admitted to HMC**

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| **Step** | **Action:** |
| 1 | Log into Sunquest.   * Determine patient has been admitted to HMC utilizing Blood Bank Inquiry. * Do not create a new patient until potential existing patients have been ruled out. |
| 2 | Perform Order Entry   * Use MRN (H) used on patient admission * Click **SEARCH** * Patient Demographics will auto fill * Click **Select** * Order location will auto fill: * Using **ALNW Card** or other source of transfusion information:   + Collection Date: Date from card   + Collection Time: Time from card or “U” (unknown)   + Received Date/Time: written on card in TIME OUT or provided by Medic One * Order Physician: listed on ALNW Unit Card * Diagnosis (if required): NDX * RRR Account number: GH1011191 * Battery:   + **ER**   + **TFFP**   + Attach modifier ;ALNW to both batteries * Attach Accession sticker to back of appropriate Unit Card(s) and/or paperwork * Staple Unit Card to Credo Cooler Log * Store in Trauma Notebook, file behind the letter of the last name. * Send original Transfusion Record and post Transfusion Record to ERHI |

**Table C: Creating ALNW Patient Record in Sunquest when Patient not admitted to HMC**

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| **Step** | **Action:** |
| 1 | Log into Sunquest.   * Determine patient has not been admitted to HMC utilizing Blood Bank Inquiry. * Do not create a new patient until potential existing patients have been ruled out. |
| 2 | Perform Order Entry   * HID begins with **ALNW-** * Click **SEARCH;** * Click **CREATE;** Pop-up window - note a digit is added to the **ALNW-:** this is the HID number * Patient Demographics will auto fill:   + Last Name: **UNREGISTERED**   + First Name: **AIRLIFT**   + Middle Name: not used   + Date of Birth: 00/00/0000   + Gender: UNKNOWN * Billing information will auto fill:   + Account #: GH1011191   + Event Type: OS ~ Outside (H)   + Event Status: Active   + Start Date: current date * **SAVE** * Using **ALNW Unit Card** or other source of transfusion information:   + Collection Date: Date from card   + Collection Time: Time from card or “U” (unknown)   + Received Date/Time: written on card in TIME OUT or provided by ALNW * Diagnosis: NDX * Battery(ies):   + RBCs: **ER**   + Plasma: **TFFP**   + Attach modifier ;ALNW to both batteries * Attach Accession sticker to back of appropriate Unit Card(s) and/or paperwork * Staple Unit Card to Credo Cooler Log, original Transfusion Record, and post Transfusion Records. * Store in Trauma Notebook, file behind the letter U. * Update the Blood Bank Administrative Data Entry with ALNW flight #, patient name (if available), date and tech ID |

**References:**

Standards for Blood Banks and Transfusion Services, Current Edition. AABB Press, Bethesda, MD.