**Purpose:**

To describe the Harborview Medical Center (HMC) Transfusion Services Laboratory (TSL) support of Medic One transfusion needs.

**Policy:**

HMC TSL will be responsible for the following processes;

* Support Medic One with universal blood products for use on patients during transportation to HMC or outside facility
* 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
* For Medic One Seattle - monitor refrigerator via TempTrak and notify Medic One when out of temperature
* Ensure attached paperwork is complete per process listed below
* Audit trail for units transfused by Medic One will be completed in Sunquest (SQ)
* Provide Medic One with any recall and lookback notifications on units given by Medic One for patients transferred to outside facility
* Document any reported transfusion reactions in SQ and notify TSL Medical Director
* Follow up on HMC admitted female patients of childbearing age that end up being Rh negative or Rh unknown.
* Notify Medic One when Whole Blood is not available.

Medic One will be responsible for the following processes;

* Train Medic One staff who will be using the Credo cooler and administering blood
* Maintain annual competency requirements on Medic One staff
* Maintain and store the cooler at appropriate temperature, documenting the times in and out of monitored storage
* Maintain refrigerator or transport container the cooler is stored in
* Keep the cooler closed at all times until ready to transfuse
* Return cooler to HMC TSL when cooler has been opened, weekly, or after 24 hours cumulative time outside monitored storage.
* Notify TSL when units have been transfused and provide relevant patient information and run 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. Medic One Medical Director will be responsible for notifying patient as appropriate.
* Follow up with any transfusion reaction that may occur following transfusion with Medic One Medical Director
* Follow up on any non-HMC admitted female patients of childbearing age

**Procedure:**

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| **Step** | **Action** | **Related Documents** |
| **Overview** | | |
| 1 | TSL prepares Credo Cooler with 2 units of Group O Low Titer Whole Blood; preferentially providing Rh positive over Rh negative.   * Red Blood Cells and plasma may only be substituted with TSL and Medic One Medical Directors approval | Credo Cooler Transport Schedule |
| 2 | Medic One considers Credo Cooler a critical supply and will be carried by their crew |  |
| 3 | Upon Credo Cooler use or reaching time to switch, TSL is notified to prepare a replacement Credo Cooler. |  |
| 4 | TSL assesses returned cooler inventory via a data logger and/or NIST certified thermometer for return to inventory or quarantine/discard. Transfused unit audit trails are recorded in LIS. | Credo Cooler Log |
| 5 | Cooler remains in refrigerated storage at Medic One and is validated for:   * 7 days in refrigerated storage, unopened * 24 hours outside refrigerated storage (cumulative), unopened | Credo Cooler Validation Plan  Credo Cooler VIP replacement Validation Plan |
| 6 | Issues related to Medic One will be directed to a TSL Lead or Manager. Medic One will provide a contact person to aid in problem resolution. |  |
| 7 | Medic One cooler time in/out log is on paper and is submitted to HMC TSL upon request. |  |
| 8 | Transfusion Reactions occurring en route 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** when:   * Cooler has been removed from monitored storage for greater than 24 cumulative hours * Cooler has been opened * 2 days prior to shortest dated product in cooler |
| 3 | Transport to Medic One site will occur via   * Medic One Crew once a week **or** 24 hours outside refrigerated storage, review schedule posted in front of lab * With Medic One team after delivering patient with Credo Cooler to HMC ED or used at outside facility   + TSL requires 30 minutes to prepare Credo Cooler | Credo Cooler Transport Schedule |
| 4 | Perform cooler return. | Using the Credo Series 4 EMT Coolers |

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| **Processing Returned Coolers** | | |
| 1 | Process returned components 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 A * **Not** Admitted to HMC: See Table B. Get run # from Medic One crew and document on Credo Cooler Log | SQ Order Entry  SQ Blood Order Processing Test Result Guide  Table A  Table B |
| 3 | For transfused units, complete Blood Order Processing:   * Process the ER and/or TFFP order(s) per SOP   + All RBCs/Whole Blood units are to be issued using the ER battery even if patient is admitted to HMC and has a TSCR sample collected * 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 Medic One * Issued location: **See Table C for issue location** * Issued to: “removed by” name * Issue Comments: location and 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: Medic One 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 Order Entry  Table A  Table B  Table C  SQ Blood Order Processing Test Result Guide  SQ Blood Product Issue |

**Table A: Creating Medic One 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 used on patient admission * Click **SEARCH** * Patient Demographics will auto fill * Click **Select** * Order location will auto fill: * Using **Medic One 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 Medic One * Order Physician: listed on Medic One Unit Card * Order comment: Medic One * Diagnosis (if required): NDX * RRR Account number: **See Table C for Account number** * Battery:   + **ER**   + **TFFP (only if plasma has been used)**   + Attach modifier ;Medic One 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 B: Creating Medic One Patient Record in Sunquest when Patient is 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   * MRN begins with **See Table C for MRN** * Click **SEARCH** * Click **CREATE;** Pop-up window – will show the full MRN. * Patient Demographics will auto fill:   + Last Name: **UNREGISTERED**   + First Name: **MEDIC ONE**   + Date of Birth: 00/00/0000   + Gender: UNKNOWN * Billing information will auto fill:   + Account #: **See Table C for Account number**   + Event Type: OS ~ Outside (H)   + Event Status: Active   + Start Date: current date * **SAVE** * Using **Medic One 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 Medic One * Order Comment: Medic One * Diagnosis (if required): NDX * Battery:   + **ER**   + **TFFP (only if plasma has been used)**   + Attach modifier ;Medic One 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 Medic One run #, patient name (if available), date and tech ID |

**Table C: Medic One Location MRNs, Account Numbers, and Issuing Locations:**

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| **Medic One Location** | **Type MRN beginning with:** | **Account Number** | **Issue Location** |
| Medic One (Seattle Fire) | MEDIC1- | PH0826191 | MEDIC1 |
| Medic One Bellevue | M1BELV- | PH0930202 | M1BELV |
| Medic One King County | M1KC | 1400002435 | M1KC |
| Medic One Redmond | M1RED | PH1210201 | M1RED |
| Medic One Shoreline | M1SHOR | PH1211201 | M1SHOR |

**References:**

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