A. PURPOSE

1.0 This policy outlines administration and operational requirements for delivery of blood.

B. SCOPE

1.0 This procedure shall be utilized by all personnel involved with the maintenance, logistics, and supervision of the blood program.

C. POLICY

1.0 Equipment Requirements

1.1 The following shall be carried by the EMS Supervisor (EMSS);

1.1.1 Assigned EMS cell phone shall be kept with the supervisor at all times. Supervisor shall not forward the phone to personal cell phone for convenience purposes.

1.1.2 HemoRoam 5X Mobile Blood Refrigeration with cellular modem temperature monitoring/alerting system.

1.1.3 Qinflow Warrior Base Unit, Two (2) CDUs, and Two (2) LifeFlow Fluid Infusers with LifeFlow Blood Y Administration Sets.

1.1.4 Two (2) Regular Blood Y-Tubing Administration Sets, Two (2)-500ml Pressure Infuser Bags.

1.1.5 Two (2) Units (500ml) O Positive Low Titer Blood supplied by the Inova Blood Donor Services (IBDS).

1.2 Storage

1.2.1 The EMSS vehicle shall be plugged into shore power whenever the vehicle is not running.

1.2.2 Blood will be stored in the HemoRoam 5X Mobile Blood Refrigeration at a temperature between 2^0 - 6^0 Celsius in accordance with applicable FDA regulations.

1.2.2.1 The blood refrigeration unit shall be kept closed at all times except when removing blood.

1.2.2.2 Consistent temperature monitoring will be achieved via the HemoRoam Temperature Controller at 5 minutes intervals and will send a text alert to the EMSS if the temperature exceeds < 2° or >6° Celsius or 1-10° Celsius for greater than 30 minutes.

1.2.2.3 Each unit of blood will have an activated Hemo-Trac Blood Temperature Indicator attached to the package. Do not touch or handle the indicator during the daily inspection.

1.3 No food or drink shall be stored in the HemoRoam 5X Mobile Blood Refrigeration.

2.0 Daily Inspection

2.1 The EMSS will complete a daily inspection prior to 0800 hours each day and any time blood is exchanged.

2.1.1 Each individual unit of blood maintained by the SCFRD will be required to have an SCFRD QA Blood Log (attachment #1) completed.

2.1.1.1 Any time blood exchanged with IBDS, the QA Blood Log will need to be included.

2.1.1.2 Copies of the blood log shall be scanned and maintained in the EMS Folder, "Blood Program" documentation for a minimum of 2 years from the date blood was used or returned.

2.2 Inspections shall document the following on the SCFRD QA Blood Log (attachment #1):

2.2.1 HemoRoam Temperature Reading

2.2.2 Easy Log Wifi Monitor Temperature Reading

2.2.3 Hemo-Trac Temperature Indicator
2.2.3.1 Indicator should be "activated" and "Green".

2.3 If the HemoRoam Temperature Controller alerts that the temperature is outside of the accepted range (below 2° or above 6° Celsius) the EMSS will immediately begin troubleshooting the alarm.

2.3.1 If no resolution is immediately achieved, the blood will be placed in the alternate HemoRoam Refrigerator stored at the EMS2 office.

2.4 If the Hemo-Trac Blood Temperature Indicator displays Blue or HemoRoam Temperature Controller alerts that the temperature is outside of the accepted range (1-10° Celsius for greater than 30 minutes) the EMSS will immediately contact the EMS Deputy Chief and arrange the return of blood to the IBDS.

3.0 Documentation

3.1 ESO Electronic Health Record (EHR)

3.1.1 Document patients name, gender & date-of-birth (if available).

3.1.2 Clinicians shall document blood administration

3.1.2.1 Under FlowChart-Blood Tab, include dose (ml), route, clinician's name, patient's response, and any complications.

3.1.2.1.1 Under Comments section, document: Low Titer O Whole Blood (LTOWB) and add the Blood W Number.

3.1.3 Vital Signs to include: BP, HR, RR, Sp02, EtCO2, GCS, and Temperature shall be recorded every 5 minutes.

3.1.4 Verbal consent shall be documented in the narrative.

3.1.5 Enter the destination hospital

3.1.6 Obtain patients MRN identification number (if transported by SCFRD).

4.0 Notification

4.1 The EMSS shall make notification to the OMD and Deputy Chief of EMS whenever blood has been used. Notifications shall be made via cellphone communication (no text messaging).

4.2 Email follow-up shall be sent to the Deputy Chief of EMS and the EMS Quality Management Coordinator with the incident number within 4 hours of incident.

4.3 EMS Deputy Chief shall notify the IBDS on the incident within 24 hours of administration.

5.0 Quality Assurance/Quality Improvement

5.1 All administration of blood will be reviewed by the EMS Quality Management Coordinator, EMS Deputy Chief, and OMD.

5.1.1 All cases will be handled as Level 3 quality incident review.

6.0 Logistics/Exchange

6.1 Blood Expiration

6.1.1 Blood received from IBDS has a 14-day shelf life. Expiration dates will be printed on each unit of blood and must be returned on the date listed.

6.2 Routine exchange of blood

6.2.1 Blood will be exchanged on a bi-weekly basis, this will be coordinated through the EMS Division.

6.3 Field Administration of Blood

6.3.1 When blood is administered in the field, supervisor will coordinate with shift leadership and/or Deputy Chief of EMS to facilitate resupply.

6.4 Blood Exchange

6.4.1 IBDS delivery services

6.4.1.1 Before accepting blood from IBDS;

6.4.1.1.1 Confirm each pint of blood has an Hemo-Trac form. This form needs to remain with the blood and be returned if the blood is not used by SCFRD.

6.4.1.1.2 Confirm each unit has an activated Hemo-Trac Temperature Indicator and is "green".

6.4.1.2 Blood being returned shall be repacked in same container by SCFRD representative, using the same container it was delivered in.

6.4.1.2.1 Blood being returned will be placed in a red bag, taped, and repacked in ice that is in the IBDS refrigerated box.

6.4.1.2.2 Place a copy of the SCFRD QA Blood Log in the same container with the blood. This provides verification that the blood has been maintained in accordance with IBDS requirements.

6.4.2 Exchanging blood at IBDS

6.4.2.1 Blood will be transported using the primary or back-up HemoRoam refrigerator.

6.4.2.1.1 Provide a copy of the SCFRD QA Blood Log

6.4.2.2 Prior to leaving Stafford County, the representative will contact Inova Blood Donor Services at 571-434-3614 to replace the units administered. They need to know ETA and how much blood is needed.

6.4.2.2.1 Blood can be replaced at IBDS 24 hour, 7-days a week. Address: Inova Blood Donor Services 45745 Nokes Boulevard, Suite 160 Sterling, VA 20165.

6.4.2.3 Before accepting blood from IBDS, confirm that each unit of blood has an Hemo-Trac form. This form needs to remain with the blood and be returned if the blood is not used by SCFRD.

6.4.2.3.1 Confirm each unit has an activated Hemo-Trac Temperature Indicator and is "green".

6.4.3 Upon receiving blood, a new SCFRD QA Blood Log will be started for each unit of blood.

EMS 2 Whole Blood Daily QA Log

Blood Unit # _____ Date received from IBDS _____

SCFRD Storage and Possession 14-day Cycle / Transport Period

SCFRD Storage Possession	Date	EMS Supervisor Initials	HemoRoam AM temp by 0800 hrs	Easy Log AM temp by 0800 hrs	Hemo-Trac Temp Indicator Intacted & GREEN (y/n)
Day 0					
Day 1					
Day 2					
Day 3					
Day 4					
Day 5					
Day 6					
Day 7					
Day 8					
Day 9					
Day 10					
Day 11					
Day 12					
Day 13					
Day 14					

Date used or returned to IBDS _____

Receiving Hospital _____ Incident # or MRN _____

***This form will be used for each unit of blood received from IBDS.**
****Post transfusion or when blood exchanged, form must be submitted to DC of EMS within 24 hours.**

Attachment 1