POLICY: 590.10
TITLE: Continuation of Blood and Blood Products for IFT

EFFECTIVE: DRAFT
REVIEW: DRAFT
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

CONTINUATION OF BLOOD AND BLOOD PRODUCTS FOR IFT

I. AUTHORITY

Health and Safety Code, Division 2.5, Sections 1797.220.
California Code of Regulations, Title 22, Chapter 4, Article 1, Section 100145

II. DEFINITIONS

A. **Allergic reaction** means a reaction resulting from hypersensitivity to an antigen.

B. **ALS Ambulance Providers** means those ALS Ambulance providers approved by the Mountain Counties EMS Agency Medical Director will be permitted to provide the service of monitoring infusion of blood products during interfacility transports from hospital(s) within their service area.

C. **Anaphylaxis** means a sudden, severe reaction to an antigen which can produce vasodilation, bronchospasm, laryngeal edema and can be life threatening.

D. **Approved Training** means indications, contraindications, actions, adverse effects, appropriate documentation with both written and skills testing required demonstrating basic competency in administration of medication.

E. **Blood and Blood Products** includes, but is not limited to, packed red blood cells (PRBCs), whole blood, fresh frozen plasma (FFP), platelets, cryoprecipitate, and prothrombin complex concentrates.

F. **Hemolytic Reaction** means an adverse reaction to a transfusion caused by the presence of foreign antigens, antibodies, or cytokines.

G. **Local Optional Scope of Practice (LOSOP)** means the ability to perform or monitor other procedure(s) or administer any other medication(s) determined to be appropriate for paramedic use by the medical director of the LEMSA, that have been approved by California EMSA.

H. **Volume overload** means exceeding the bodies capacity to process fluid causing organ failure.

III. PURPOSE

To establish indications, guidelines, and the standard procedures for the continuation of Blood and Blood Product infusions during interfacility transfer.

IV. PROCEDURE

A. The transfusion must have been running for at least 15 minutes prior to the initiation of an interfacility transfer.

B. Only those paramedics who have successfully completed the training program approved by the Mountain Counties EMS Agency Medical Director on pre-existing infusions of blood or blood products will be permitted to monitor them during interfacility transports.

C. Patients who are candidates for paramedic transport will have pre-existing infusions of blood or blood products in peripheral or central IV lines. **Prehospital personnel will not initiate blood transfusions.**

D. All patients will be maintained on a cardiac monitor and a non-invasive blood pressure monitor.

E. The paramedic shall receive the transferring orders from the transferring physician prior to leaving the sending hospital. Transferring physicians must be aware of the general scope of practice of paramedics. The written orders shall include:

1. The transfusion rate with orders for maintaining and adjusting blood transfusion rate during transport.

2. Regulation of the transfusion rate will be within the parameters defined by the transferring physician.

3. A telephone number where the transferring and/or base hospital physician can be reached during the patient transport.

4. These written orders shall be attached to the PCR.

F. Paramedics can transport patients on blood or blood products within the following parameters:

1. Patients have a pre-existing blood or blood products infusion in a peripheral or central IV line. Infusion was initiated by the sending facility.

2. Identify the patient and blood by checking the patient ID band against the blood label and blood order for name, blood type and unit identifying number.

3. Patients do not have more than two (2) medicated infusions running, exclusive of potassium chloride (KCl).

G. The transporting paramedic shall obtain a written order from the transferring nurse or physician as to the rate of infusion, and the total amount to be infused during transport of the patient.

H. Blood or blood products shall be administered via infusion pump. It shall never be administered by the paramedic via IV push or uncontrolled gravity sets.

I. Vital signs will be monitored and documented every 15 minutes and immediately if there is any change in patient status or change in transfusion rate.

J. Monitor the patient for any signs and symptoms of a transfusion reaction. Monitor temperature for adverse effects if transport time exceeds 15 minutes. The following are the most common types of transfusion reactions that may occur:

1. **Hemolytic reactions**: Hemolytic reactions are the most life-threatening. Clinical manifestations may vary considerably: fever, headache, chest or back pain, pain at infusion site, hypotension, nausea, generalized bleeding or oozing from surgical site, shock. The most common cause is from ABO incompatibility due to a clerical error or transfusion to the wrong patient. Chances of survival are dose dependent therefore it is important to stop the transfusion immediately if a hemolytic reaction is suspected.

2. **Febrile non-hemolytic reaction:** Chills and fever (rise from baseline temperature of 1°C or 1.8°F). Document and report to hospital on arrival.

3. **Allergic reaction:** Characterized by appearance of hives and itching (urticaria or diffuse rash).

4. **Anaphylaxis:** May occur after administration of only a few ml's of a plasma containing component. Symptoms include coughing, bronchospasm, respiratory distress, vascular instability, nausea, abdominal cramps, vomiting, diarrhea, shock, and loss of consciousness.

5. **Volume overload:** Characterized by dyspnea, headache, peripheral edema, coughing, frothy sputum or other signs of congestive heart failure occurring during or soon after transfusion. Restrict fluid, consider administration of furosemide.

6. **If a suspected transfusion reaction occurs:**
   a. Interrupt the transfusion immediately.
   b. Contact the transferring and/or base hospital physician.
   c. Consult appropriate treatment guideline.
   d. Document any suspected transfusion reactions.
   e. Report to hospital staff immediately upon arrival.
   f. File an Unusual Occurrence for and submit to the EMS Agency.

K. The paramedic shall document on the patient care report (PCR) the total volume infused throughout the duration of the transport.