Subject: Scope of Practice/Procedure – ALS LOCAL OPTIONAL SCOPE
Blood/Blood Product Infusion during Interfacility Transfer

Associated Policies:

I. Policy

A. This procedure shall be preformed exclusively by paramedics authorized by North Coast EMS as "Blood Product Accredited."

B. Blood Product Accredited Paramedics may not initiate blood/blood product infusions.

C. Only those ALS ambulance providers approved by the North Coast EMS Medical Director will be permitted to provide the service of monitoring pre-existing blood transfusions during interfacility transports.

D. Transferring physicians must be aware of the general scope of practice of paramedics and the transport protocol parameters outlined in this policy.

E. Patients who are candidates for paramedic transport will have pre-existing blood transfusions in peripheral or central IV lines.

F. Paramedic personnel must be knowledgeable in the operation of the specific Blood delivery/warming device(s) to be employed during transport.

II. Procedure

A. **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.**

B. The paramedic shall receive the transferring orders from the transferring physician prior to leaving the sending hospital, including a telephone number where the transferring physician can be reached during the patient transport.

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

D. Regulation of the transfusion rate will be within the parameters defined by the transferring physician. The transporting paramedic shall obtain an 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.

1) Expected rates of transfusions are as follows:

- Initial rate is slow for first 15 minutes of transfusion. (Adults: 2-3ml/min; Pediatrics: 1/10 of the volume to be transfused.)
- Subsequent rates are dependent on physician order and may range from wide open to 4 hours. Due to potential bacterial growth, a blood transfusion must be completed within 4 hours of issuance.

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E. 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.

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

G. 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:

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. Give a fluid challenge of NS.

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. (As a practical matter, assessing small changes in patient temperature during transport may be difficult or impossible. If the patient develops a fever, chills, headache, nausea or vomiting, stop the transfusion.)

Allergic reaction: Characterized by appearance of hives and itching (urticaria or diffuse rash). Stop the transfusion immediately. Treat according to North Coast EMS allergic reaction/anaphylaxis protocol 6523.

Anaphylaxis: May occur after administration of less than 10 milliliters of a plasma containing component. Symptoms include coughing, bronchospasm, respiratory distress, vascular instability, nausea, abdominal cramps, vomiting, diarrhea, shock, and loss of consciousness. Stop the infusion immediately. Treat according to North Coast EMS allergic reaction/anaphylaxis protocol 6523.

Volume overload: Characterized by dyspnea, headache, peripheral edema, coughing, frothy sputum or other signs of congestive heart failure occurring during or soon after transfusion. Stop the transfusion immediately.

If a transfusion reaction occurs:

- Stop the transfusion immediately.
- Contact transferring physician and base / modified base hospital.
- Consult appropriate treatment protocol.

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Associated Policies:

- Leave the infusion tubing attached to the blood/blood product bag, place into another bag and deliver to the receiving hospital.
- Report to hospital immediately upon arrival.

Document any transfusion reactions in your PCR.

III. Quality Assurance:

A. North Coast EMS retrospective evaluation of paramedic interfacility transports of patients on blood/blood products infusions.

B. Blood Product approved ALS provider agencies must include an evaluation of each blood/blood products transport in their Quarterly QIP report.

Approved: _____ Date: 1-14-21

Approved as to Form: Z Karstedt Date: 1-14-21