BLOOD PRODUCT MANAGEMENT
EMSAC OCTOBER 2025

ACTION:

- Patients in hemorrhagic shock may need to be transferred to a tertiary care or trauma center with blood/blood product transfusions in process as part of emergency resuscitation
- Blood products include packed red blood cells (PRBCs), whole blood, fresh frozen plasma (FFP), platelets, cryoprecipitate, and prothrombin complex concentrates

INDICATION:

- All blood products to be infused must be initiated under a physician's written order by the transferring facility prior to paramedic transport
- The San Francisco EMS Agency does not authorize EMS personnel to start, hang or otherwise initiate the infusion of blood products.

CONTRAINDICATION: N/A

POTENTIAL SIDE EFFECTS:

- Transfusion reactions are defined as follows:
    - Allergic reaction: reaction that presents with hives or itching only, without signs of anaphylaxis
    - Anaphylaxis: reaction that presents with signs of allergic reaction, respiratory distress, vascular instability, vomiting, diarrhea and/or shock
    - Hemolytic transfusion reaction: reaction can be life threatening and may present with fever, headache, back pain, nausea, hypotension and pain at infusion site.
    - Volume overload: may show signs of congestive heart failure

NOTES:

- The transfusion rate will be determined by the transferring physician and communicated to the paramedics to transport
- Transferring ED is responsible for providing EMS personnel with a written order (or faxed directly to receiving facility) for each blood product being transfused.
- Destination of the patient for which paramedics transport while monitoring blood product transfusions is determined by current San Francisco County EMS destination policy (Section. 5000)
- Guidelines:
    - Before accepting responsibility for the patient, confirm with a nurse or physician from the transferring facility, that the name on the patient's armband and blood bank number is the same as the name and blood bank

number on the unit(s) of blood product which is (are) infusing. A patient identification band must be present prior to transfer.

- Confirm the written order for the blood product(s) to be infused, which shall include the following:
  - Type of blood product being transfused
  - Rate of the transfusion
  - Name of the transferring physician
- Monitor all patients continuously during transport with a cardiac monitor and a noninvasive blood pressure monitor every 10 minutes during transfusion.
- Run blood products with normal saline only. Do **NOT** infuse medications in the line with blood.
- In patients with suspected transfusion reactions, including: hemolytic reactions, allergic reactions, anaphylactic reactions and volume overload:
  - Stop the blood product transfusion
  - Change the IV tubing (do not flush the line)
  - Initiate care per applicable Treatment Protocol (2.02 Allergic Reaction,2.11 Respiratory Distress: Bronchospasm, 2.12 Respiratory Distress: Acute Pulmonary Edema)
  - Notify the receiving facility
  - Provide the remaining blood product and tubing to the receiving hospital
- Document volume of blood product transfused, any suspected transfusion reaction on the ePCR and communicate the reaction and interventions taken to the receiving emergency department staff.
- The receiving emergency department staff will be responsible for communicating transfusion related adverse events to the transferring facility emergency department staff.