

Blood Product Administration (≥ PL6)

Clinical Indications:

Patient with signs of external or internal hemorrhage with **two or more** of the following indications of hemorrhagic shock:

Contact OLMC if patient is ≤ 5 years of age

Adult

1. MAP < 60
2. HR > 110
3. SBP < 90
4. EtCO₂ < 25 mm Hg
5. Shock Index > 1 (SI = HR ÷ SBP)

Pediatric

1. Delayed capillary refill > 2 seconds
2. SBP < (70 + 2 x age) or < 90
3. Bradycardic or tachycardic heart rate:
 - a. Neonate (< 29 days) < 100 or > 180
 - b. Infant (1 to 12 months) < 80 or > 160
 - c. Child (1 to 10 years) < 60 or > 130
 - d. Older Child (> 10 years) < 60 or > 110

Contraindications:

Personal or religious objection to receiving blood products.

Preparation for Use:

1. Ensure adequate personnel are on scene to appropriately manage all concurrent priorities.
2. Patent IV or IO access dedicated for blood product administration.
3. Ensure pre-transfusion vital signs of pulse rate, respiratory rate, blood pressure, EtCO₂ & SpO₂, and body temperature are obtained.
4. Only remove blood products from the cooler immediately prior to transfusion.
5. Ensure temperature indicator on the blood product bag is indicating appropriate temperature storage. If the product has reached unacceptable storage temperature, then do not transfuse the product.
6. Blood product has been warmed to ~ 37 C (95 F).

Procedure:

1. Gently agitate blood product bag and use only filtered blood tubing for administration. Setup and prime the line as required. Perform medication cross check then begin administering blood product to the patient.
 - a. For pediatric patients, administer 10cc/kg. Call OLMC for additional volume if needed.
 - b. For adult patients, titrate volume to sustain improvement in the clinical indications for administering blood products.
2. Administer [Calcium Chloride](#) and only through a **separate** IV or IO line.
 - a. Should be administered during the first blood product bag and repeated every 4th bag.
3. Monitor for reactions to the blood product transfusion and vital sign trends.
 - a. Presentations of transfusion reactions include common signs and symptoms of anaphylaxis or medication reaction; as well as fever, unexplained abdominal or back pain after administration.
 - b. If the patient has a reaction:
 - i. Immediately stop the blood product transfusion.
 - ii. Replace the blood product bag and tubing with a new isotonic crystalloid bag and tubing.
 - iii. Refer to [Allergic Reaction COG](#).
 - iv. Notify the receiving facility, then DMO and OLMC before returning to service.
4. Document the total amount administered in the ePCR.

Blood Product Administration (≥ PL6)

5. Prior to patient transfer, document the following on the Prehospital Blood Product Transfusion Record:
 - a. Indicate whether the transfusion is complete or ongoing.
 - b. Indicate whether a suspected transfusion reaction occurred. If a transfusion reaction is suspected, document actions taken in the "comments" section of the form.
 - c. The name of the ground transport agency.
 - d. Medic unit #.
 - e. Receiving facility.
 - f. Type of call.
6. Document the following on the Prehospital Blood Product Transfusion Record:
 - a. Patient name
 - b. Transporting agency run/case #.
 - c. Product unit number. If a sticker from the back of the blood product bag is used, ensure additional stickers are placed on copy of the 3-part form.
 - d. Product type
 - e. Start time
7. Prior to leaving the hospital:
 - a. Give product bag(s) and tubing to the receiving facility.
 - b. Ensure a representative from the receiving hospital prints their name and signs the Prehospital Blood Product Transfusion Record indicating receipt of the blood product and form.
 - c. Leave the yellow and pink copies of the form with the hospital representative who signed the form.
 - d. Keep the white copy for EMS records.
8. Call We Are Blood at 512-206-1229 to arrange pickup of another unit of blood product.