

Texas EMS Sim Games

Blood Products Administration - Competition Protocol

Indications

- Hemodynamically unstable (hypotension/tachycardia)
- Suspected ongoing hemorrhage
- Suspected or obvious blood loss

Contraindications

- Patient is alert, oriented, and refuses transfusion

Shock Index

Formula: HR / SBP

- Adult: > 0.9
- Pediatric:
 - Age 4–6: > 1.22
 - Age 7–12: > 1.0
 - Age 13–16: > 0.9

Initial Actions

1. Obtain vascular access
2. Calculate shock index
3. Consider TXA

Transfusion Guidelines - Adult

- Warmed PRBCs + Plasma
- 1:1 simultaneous transfusion
- May supplement with Whole Blood
- Calcium: 1g Calcium Gluconate IV/IO after every 1:1 transfusion

Transfusion Guidelines - Pediatric (<12 years)

- Warmed PRBCs + Plasma
- 10 mL/kg of each (20 mL/kg total)
- May supplement 10 mL/kg Whole Blood
- Calcium: 0.25 mg/kg up to 1g Calcium Gluconate IV/IO after every 1:1 transfusion

Transfusion Reaction Protocol

- Stop Blood Immediately
- Follow Allergic Reaction Guidelines

Clinical Pearls

- Warm blood using commercial fluid warmer when possible