

Low Titer O + Whole Blood – Medical

History

- Shock is defined as inadequate perfusion of blood and oxygen to the brain, heart and other vital organs
- Medications – Coumadin? Plavix? Aspirin? Pradaxa? Xarelto? Eliquis? (any blood thinners or anticoagulants)
- Beta Blockers and Calcium Channel Blockers may not allow HR to increase appropriately

Key Concepts

- Low Titer O + Whole Blood is now being used to treat critically ill medical patients who have or are at risk for severe hemorrhage

Examples of Patients in Hemorrhagic Shock

- Gastrointestinal (GI) bleed
- Postpartum hemorrhage
- Cirrhotic liver or liver failure
- Vascular – such as an uncontrolled bleeding shunt, fistula or varicose vein
- Urological – especially with recent surgery or procedure
- Potentially a recent surgical patient
- Uncontrolled epistaxis

Criteria

HEMORRHAGIC SHOCK in medical or trauma Adult and Pediatric (≥ 6 yo) patients

Relative Contraindications

- Patient < 6 years old
 - Consult Medical Direction if patient is in hemorrhagic shock and < 6 yo
 - Medical Director may elect to give blood in patients < 6 yo

Contraindications

- Religious objection to receiving whole blood—consult On Call Medical Director

EMT

- Follow General Medical Care Guideline
- Follow appropriate Shock Guideline

Paramedic

For Patients in HEMORRHAGIC SHOCK:

Administer Whole Blood with signs of acute hemorrhagic shock as evidenced by:

- Systolic Blood Pressure < 70 mmHg **OR**
- Systolic Blood Pressure < 90 mmHg with Heart Rate ≥ 110 beats per min **OR**
- ETCO₂ < 25 **OR**
- Witnessed cardiac arrest < 5 min prior to provider arrival and continuous CPR throughout downtime **OR**
- Age ≥ 65 yo and SBP ≤ 100 **AND** HR ≥ 100 beats per minute

In general only 500mL (1 unit) of Low Titer O+ Whole Blood (LTO+WB) will be available per patient. If more than 500 mL of Whole Blood is available on scene the following general guidelines apply:

- 6-10 yo are eligible for a total of 500 mL of Whole Blood
 - Consult Medical Direction for further orders, if needed
- 11-13 yo are eligible for a total of 1000 mL of Whole Blood
 - Consult Medical Direction for further orders, if needed
- ≥ 13 yo are eligible for >1000 mL of Whole Blood
 - Consult Medical Direction for further orders, if needed

Of Note: At this time the unit of LTO+WB does not have volume markings on the bag.