

## Sheridan Memorial Rapid Transfusion Protocol

**Protocol Statement:** This protocol provides guidelines for facilitating and coordinating the timely replacement of massive blood loss with appropriate blood components for trauma patients while preparing for their transfer to a higher level of care.

**Purpose:** The purpose of the Rapid Transfusion Protocol (RTP) is to facilitate the rapid restoration of intravascular blood volume and its oxygen carrying capabilities as well as the correction/prevention of coagulopathies associated with hemorrhagic shock.

**Definitions:** Patients considered likely to require large volumes of blood should be considered particularly if **one or more** of the following is evident:

- **Hypotension:** systolic BP <80/- in an adult, <60/- in a child under the age of 10; or a SBP between 80-90 that does not respond to rapid infusion of 30ml/kg of LR, or two boluses of 20ml/kg in a child.
- **Tachycardia:** heart rate >120
- **Major obvious blood loss:** >700ml immediate return from a chest tube, multiple long bone and/or pelvic fractures, large hemoperitoneum, heavily blood-soaked clothes or dressings, etc.

### General Considerations:

- Hypothermia: Affects coagulation in all major phases of clotting. The infusion of PRBC's and FFP is essentially futile in the bleeding patient if they are hypothermic. Warm the patient promptly and adequately prior to the infusion of clotting components.
- Use only pre-warmed solution and infuse with the Thermal Angel Fluid Warmer or Animec Electric IV Fluid Warmer.
- Heat conservation and delivery methods should include some or all:
  - Bair Hugger/warm blankets
  - Warm ambient room temperature
  - Warm humidified oxygen

### Procedure:

- Activation of RTP (the following are empiric guidelines-the provider is responsible for ordering patient specific products and studies)
  - Initiated at the discretion of the attending provider and/or after receiving provider consulted
  - RN to call lab and notify them that RTP has been ordered
  - Baseline coagulation studies drawn PT/PTT, INR (separate from trauma panel)
  - Lab to initiate thawing of 2 units universal donor FFP and deliver 1 unit O-negative PRBC to hospital
  - Provider to consider administration of Tranexamic Acid (TXA) per guidelines
  - First unit of O-negative PRBC's initiated ASAP and infused per blood component administration protocol
  - Transfuse type-specific PRBC's as soon as available
  - Transfuse 1<sup>st</sup> unit universal donor FFP per blood component administration protocol immediately after 1<sup>st</sup> unit of O negative PRBC's completed
  - Consider 1:1 PRBC:FFP replacement ratio based on lab studies and hemodynamic response during RTP until patient is stabilized and/or transferred
  - PEDIATRIC EMPIRIC GUIDELINES:
    - 40cc/kg PRBC, 20cc/kg FFP initially. Follow as dictated by patient assessment and lab studies; with 1:1 PRBC: FFP ratio.