

Leaders in Laboratory Medicine

## Appropriate Initial Interventions

- IV/IO access: 2 large bore IVs + CVC
- Crystalloid: as per attending physician
- Order STAT labs\* and ABG (see green box to the right)
- Continuous Monitoring
- Use blood warmer for transfusions if available
- Prevent/reverse acidosis
- Correct hypocalcemia:
  - Adults: Ca gluconate 3 g IV slowly or Ca Chloride 1 g IV slowly\*\*
- Pediatrics: Ca gluconate 30 mg/kg/dose IV slowly
   \*\*Calcium chloride is a vesicant. Infuse through central line if available.
- Tertiary Trauma Survey

## **Other Considerations**

- Heparin reversal: Protamine 1 mg IV / 100 Units of heparin
- Warfarin reversal:
  - Vitamin K 10 mg IV
- Prothrombin Complex (dose as per INR based protocol)
- Direct Factor X inhibitor bypass: 25-50 IU/kg PCC (to a max of 3000 units)
- Dabigatran reversal **Idarucizumab** 5 g over 20 minutes
- Consider antifibrinolytics:
  - Adults: Tranexamic Acid 1 g IV bolus (if not already administered) followed by 1g over 8 hours
  - Pediatrics: Tranexamic Acid 10-15mg/kg bolus (if not already administered) followed by 1mg-5mg/kg/h infusion

## General Guidelines for Blood Product Replacement in Adults

**RBCs**Aim for Hgb of at least 80 g/L in actively bleeding patient<br/>Dose: MD discretion (Peds: 20 mL/kg reasonable start)**IF** available at site:Recommended thresholds:<br/> $\leq 1.5$  g/L (Trauma, Gl or surgical bleeding)<br/> $\leq 2.0$  g/L (Obstetrical or CV surgical)<br/>Typical Dose: Fibrinogen concentrate: 4 grams**Plasma**If INR>1.8<br/>Dose: 10-20 mL/kg**Platelets**If Plt <50 x 10<sup>9</sup>/L or <100 x 10<sup>9</sup>/L if CNS injury<br/>Dose: 1 platelet pool

Applicability: Facilities that do not have massive hemorrhage protocol.

Overview	*STAT Labs
<ol> <li>CALL Lab.</li> <li>ORDER STAT Labs.</li> <li>COMPLETE transfusion tags</li> </ol>	Type & Screen CBC INR Electolytes Creatinine
<ol> <li>OOMFILETE transition tags</li> <li>NOTIFY Lab when complete.</li> <li>SCAN transfusion tags into Epic.</li> </ol>	If available at your site: Lactate Fibrinogen ABG
Identify & Manage Bleeding	
Coordinate with appropriate service intervention for definitive hemorrhage control	
	+
Commun	icate with Lab
<ol> <li>During lab hours, PHONE lab and provide:         <ul> <li>Pt demographics: Name/alias, pMRN/ULI, se</li> <li>Indication</li> <li>Clinical contact name and phone number</li> </ul> </li> <li>Request RBCs from the lab. Ensure Transfuse I</li> </ol>	x, weight, age/estimated age - Current pt location - MRHP name Emergent Order is placed in Epic.
	•
Transfuse with unmatche	d RBCs on hand as necessary
No defined threshold, up to MD discretion	
•	
Communicate with Pathologist / Transfusion Medicine Physician	IF no Lab staff available:
<ul> <li>They will:</li> <li>Advise about safety of available products</li> <li>Suggest alternative products / interventions</li> <li>Discuss need for referral to larger centre based available resources on site.</li> <li>Coordinate blood products being brought in from nearby site (if necessary)</li> </ul>	<ul> <li>Complete Manual Issue Card for Of Hours Issuing</li> <li>Required fields:         <ul> <li>Patient demographics</li> </ul> </li> </ul>
+	Blood component / product     being taken (with unit
Communicate	number) • visual inspection
Contact RAAPID:	two signatures (at least one health care professional),
• North: 1-800-282-9911 or 780-735-0811	date and time of issue
• South: 1-800-661-1700 or 403-944-4486	
Communicate changes to patient location to Lab	