



**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  
Dose: MD discretion (Peds: 20 mL/kg reasonable start)

|                              |   |
|------------------------------|---|
| <b>IF available at site:</b> | Recommended thresholds:   |
| <b>Fibrinogen</b>            | ≤1.5 g/L (Trauma, GI or surgical bleeding)<br>≤ 2.0 g/L (Obstetrical or CV surgical)<br>Typical Dose: Fibrinogen concentrate: 4 grams |
| <b>Plasma</b>                | If INR>1.8<br>Dose: 10-20 mL/kg   |
| <b>Platelets</b>             | 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.

