



Appropriate Initial Interventions

- IV/IO access: 2 large bore IVs \pm 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)

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| IF available at site: | |
| Fibrinogen | Recommended thresholds: ≤ 1.5 g/L (Trauma, GI or surgical bleeding) ≤ 2.0 g/L (Obstetrical or CV surgical) Typical Dose: Fibrinogen concentrate: 4 grams |
| Plasma | If INR > 1.8 Dose: 10-20 mL/kg |
| Platelets | If Plt $< 50 \times 10^9/L$ or $< 100 \times 10^9/L$ if CNS injury Dose: 1 platelet pool |

Applicability: Facilities that do not have massive hemorrhage protocol.

