



Massive Hemorrhage Protocol

APPENDIX A: Greater than or equal to 50kg Massive Hemorrhage Protocol Flowchart

Appropriate Initial Interventions:	
<ul style="list-style-type: none"> • IV/IO access: 2 large bore IVs ± CVC • Crystalloid: as per attending physician • Order MHP labs, Type and Screen (as needed), ABG • Continuous Monitoring • Use blood warmer for transfusions if available • Prevent/reverse acidosis • Correct hypocalcemia: <ul style="list-style-type: none"> ○ Ca gluconate 3 g IV slowly or ○ Ca Chloride 1 g IV slowly ** <p>**Calcium chloride is a vesicant. Infuse through central line if available.</p> • Transfuse with unmatched RBCs, if needed 	
Other Considerations	
<ul style="list-style-type: none"> • Heparin reversal: Protamine 1 mg IV / 100 Units of heparin • Warfarin reversal: <ul style="list-style-type: none"> ○ 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: Tranexamic Acid 1 g IV bolus (if not already administered) followed by 1g over 8 hours 	
General Guidelines for Blood Component and Product Replacement in Adults:	
RBCs	Aim for Hgb of at least 80 g/L in actively bleeding patient.
Plasma	If INR>1.8 Typical dose: 10-20 mL/kg
Platelets	If Plt <50 x 10 ⁹ /L or <100 x 10 ⁹ /L if CNS or ocular injury Typical dose: 1 platelet pool
Fibrinogen	If Fibrinogen: ≤1.5 g/L (Trauma, GI, or surgical bleeding) ≤ 2.0 g/L (Obstetrical or CV surgical) Typical dose: Fibrinogen concentrate: 4 grams

