



**Appropriate Initial Interventions**

- √ Intravenous access: 2 large bore IVs ± CVC
- √ Crystalloid: as per attending physician
- √ Labs: **Type and Screen, CBC, INR, Fibrinogen, electrolytes, creatinine, Mg, ABGs, lactate, and ionized Ca**
- √ Continuous Monitoring
- √ Aggressive rewarming  
Blood warmer if rate >50 ml/kg/h
- √ Prevent/reverse acidosis
- √ Correct hypocalcemia: **Ca gluconate 3 g IV slowly \*\***  
\*\* If using calcium chloride, it MUST be infused into a central line due to the risk of tissue necrosis with peripheral lines.
- √ Transfuse with unmatched RBCs on hand
- √ Tertiary Trauma Survey

**Other considerations**

- √ Heparin reversal  
**Protamine 1 mg IV / 100 U of heparin**
- √ Warfarin reversal  
**Vitamin K 10 mg IV**  
**Prothrombin Complex –dose as per INR based protocol**
- √ Consider antifibrinolytics  
**Tranexamic Acid 1 g IV bolus (if not already administered) followed by 1g over 8 hours**
- √ Cell Salvage

**General Guidelines for Blood Product Replacement in Adults:**

<b>RBCs</b>	No threshold Dose: MD discretion
<b>Plasma</b>	If INR > 1.5 Dose: 10-15 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 Dose: 1 platelet pool
<b>Cryoprecipitate or Fibrinogen</b>	If Fibrinogen: ≤ 1.8 g/L (Trauma) ≤ 2.5 g/L (Cardiovascular surgery or Obstetrical) Dose: Cryoprecipitate: 1 Unit/10kg Dose: Fibrinogen: As per TM physician recommendation

**Identify & Manage Surgical Bleeding**  
√ Surgery √ Angiographic Embolization  
√ Endoscopy

4 units RBCs transfused in ≤ 4 hours and ongoing major bleeding. Consider activating MHP.	6 units RBCs transfused in ≤ 4 hours and ongoing major bleeding. <b>Activate MHP.</b>
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**DEDICATED PORTER OR RUNNER**

1. Takes specimen and pick-up slip immediately to the laboratory and **waits** for Pack 1A to be ready
2. Delivers Pack 1A to patient location
3. Returns immediately to TM with pick-up slip to collect Pack 1B (If the patient is pre-arrival communicate with TM when Pack 1B is required)
4. Remains **assigned** to patient until MHP is stopped regardless of change in location

**COMMUNICATE**

- Notify TM if the patient's location is changing
- Physician required to consult the on-call Transfusion Medicine MD within 15 minutes of activation

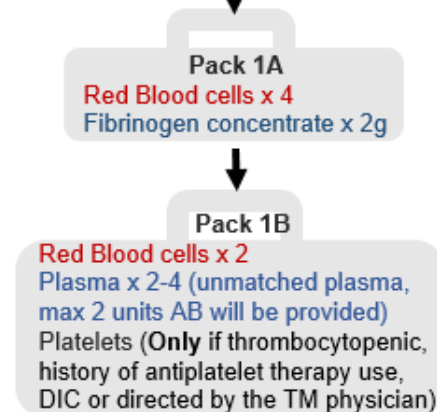
- Call TM if blood products beyond Pack 1A and 1B are required
- TM Physician can adjust pack based on labs as needed
- Subsequent packs 2, 3, 4, etc will contain all products in a single box
- Pack 2 will contain a platelet unit if not already provided.

**ACTIVATE MHP**

Call Transfusion Medicine (TM) and provide:

- Name/alias, pMRN/ULI, sex, weight
- Current patient location
- Indication for MHP
- Name of clinical contact and MRHP

Record name of TM contact.  
Send porter or runner to TM lab.



**Q30 min**

Hemostasis & resolution of coagulopathy?

**No**

- Repeat CBC, INR, PTT & fibrinogen
- Q1h consider repeat ionized Ca and K+

**Yes**

**Stop MHP**

- Notify TM
- Return any unused products ASAP
- Resume standard ordering practices

Massive Hemorrhage is defined as blood loss > 150 mL/min or replacement of 50% of blood volume in 3 h or greater than one blood volume in < 24 h.