



1. **Activate.** MHP is activated by clinical team contacting the Transfusion Medicine lab. Ask charge person for extra help.
2. **Call Transfusion Medicine (TM).** One staff member is assigned to be a clinical contact (charge nurse or designate) to ensure consistent one-to-one communication with Transfusion Medicine.
 - Phone Transfusion Medicine and provide:
 - ✓ Patient's name/alias, pMRN/ULI, age, gender, indication and location of patient
 - ✓ Name of most responsible physician (A physician or provider is required to contact the transfusion medicine physician on call within 15 minutes of MHP activation.)
 - ✓ Provide name and phone number of clinical contact
 - Record name of Transfusion Medicine contact.
3. **Send a porter** or designate (Unit/Service Attendant etc.) to the Transfusion Medicine lab with pick-up slip to pick up and deliver **Pack 1A.**

Pack 1A contains:	Patient greater than or equal to 50 kg	Patient less than 50 kg
Red Blood Cells (RBC)	4 units (If unmatched group O units)	30 mL/kg
Fibrinogen Concentrate	2 g (4 g for obstetrical hemorrhages)	30-60 mg/kg or as per TM physician

4. The porter/designate should **immediately return** to the Transfusion Medicine lab with pick-up slip to pick up and deliver **Pack 1B.**

Pack 1B contains:	Patient greater than or equal to 50 kg	Patient less than 50 kg
RBC	2 units (If unmatched group O units)	30 mL/kg
Plasma (allow ~20 minutes for thawing)	4 units (If unmatched: 2 x AB units)	20 mL/kg
Platelets	1 pool (Only as per TM physician and platelet count)	10 mL/kg

Note: All pack contents can be modified at the discretion of the TM physician. Pack 2 will contain a platelet unit unless otherwise directed by the TM physician. A pick-up slip is required for each MHP pack.

5. **Collect initial blood work.** Collect subsequent blood work as long as patient actively bleeding, or as determined by physician. Send **STAT** with 'Life Threatening' sticker on upper right corner of the requisition or on specimen bag.

Test	Tube Type	Comments	Frequency
Type and Screen	Mauve	Two tubes	• Initial
CBC	Mauve	Only one tube needed	• Initial • q30 min
PT (INR) Fibrinogen	Light blue	One full tube needed	
Electrolytes Creatinine Magnesium	Light green	Only one tube needed	• Initial • q4h (Consider repeat ionized Ca and K ⁺ q1h.)
ABG		On ice if immediate analysis is not possible	
Ionized calcium	Light green	On ice (Not required if part of ABG)	
Lactate	Grey	(Not required if part of ABG)	



6. **Communicate.**
 - Notify the porter or designate and Transfusion Medicine if the patient location changes.
 - Notify Transfusion Medicine if additional blood components or products are required.
7. **Terminate.**
 - Notify Transfusion Medicine to terminate MHP if no longer required.
 - Return unused blood components and products to the Transfusion Medicine lab ASAP. (Fibrinogen concentrate can be returned to the Transfusion Medicine as long as it has not been reconstituted).
8. **Feedback.** Fill out and return [TM40-02.600F01 Massive Hemorrhage Protocol Feedback Form - EZ](#) that is received with Pack 1A.

Notes for blood components and products:

- Blood components can be kept in cooler for up to 8 hours (expiry date/time is on cooler).
- Keep unused blood components in their original cooler. DO NOT add other blood components to a cooler.
- Cooler can be transported with patient as long as it has not passed the expiry date/time.
- Cost for lost/missing phase change (cooling) material will be billed to department.

Nursing Considerations

- **Ensure 2 large bore IVs**
- **Crystalloid fluid per order**
- **Aggressive re-warming**
 - **Warm rapidly transfused blood**
- **MHP pack stays with patient if transferred**
 - **Notify TM if patient location changes**
- **Notify TM when MHP stopped**
- **Return unused products ASAP**

Red Blood Cells

Volume: ≈ 300 mL

Administer through blood tubing or High-Flow tubing for pressure infuser.

Plasma

Volume: 100 – 260 mL

Administer through blood tubing over ~30 min or High-Flow tubing for pressure infuser.

Platelets

Volume: ≈ 250-350 mL

Administer through blood tubing over ~30 min.
Can transfuse via blood warmer.

DO NOT transfuse through rapid infuser.

Flush set with NS

Fibrinogen Concentrate

Volume: 1g/vial

Separate line infusion over 20mL/min.
(Refer to the Blood Components and Products Information/Monographs on the AHS Transfusion Medicine website)

Contact Information:

For questions or comments, please contact Transfusion.SafetyTeam@aplabs.ca or refer to <http://www.ahs.ca/labtransfusion>.