

Identify the bleeding patient (consider ABC Score for Trauma Patients to trigger MTP)

ABC Score (2 or more): Penetrating trauma; ED SBP 90 mmHg or less; ED HR of 120 bpm or greater; Positive FAST

Manage the bleeding patient: ✓ Surgery ✓ Endoscopy ✓ Angiographic embolization

Physician or Surgeon decides to activate MTP= 1:1:1 ratio of RCC: Plasma: Platelets

6 U RCC: 6 U Plasma: 1 bag platelets (5-6 pooled donors)

Clinical Team activates MTP:

- ✓ Call TM (6050) to alert staff (with pt gender & age)
- ✓ Call Lead Porter (6265, #400) informs MTP activation and to go to TM
- ✓ Enters MTP into Meditech OE with MD name; ensure Trauma Set ordered with addition Mg and fibrinogen

TM prepares MTP box #1

1 bag platelets & 2 U RCC (may be universal donor)

Porter deliver box to clinical area & returns to TM

TM prepares MTP box #2

2U plasma & 4 U RCC (may be universal donor)

Porter deliver box to clinical area & returns to TM

TM prepares MTP box #3

4U plasma

Porter deliver box to clinical area & returns to TM

Clinical area

- ✓ Give platelets first
- ✓ Give RCC until plasma arrives
- ✓ Plasma may be prepared as 1U=250 mL or 2U=500mL
- ✓ Keep RCC and plasma in TM boxes until ready to transfuse

Clinical area → determines if further blood components are needed or a 2nd MTP is required. TM will prepare additional units and porter will continue to deliver boxes.

OR Clinical area → manages bleeding and stops MTP → inform TM & porter

NOTE:

- ◇ It is ok to give TM a 'heads up' of a potential bleeding trauma pt in the field or arriving from a rural site with blood infusing, but the ED will not activate MTP prior to pt arrival in the ED.
- ◇ If platelets ordered—but not available, thus not transfused-- enter the issue in the RLS system. The RLS system will assist TM to track the fact that platelets were ordered and not available for transfusion at the time they were ordered. Determine with TM staff the priority of which the pt requires the dose of platelets (the platelets will need to come from CBS in Calgary by stat or routine courier).

Considerations during Massive Transfusion Protocol infusion

Initial interventions/ considerations:

- ◇ IV access: at least 2 IVs, consider IO or CVAD
- ◇ Crystalloids– minimize crystalloid infusions
- ◇ Labs– get baseline Trauma Set and add Mg & fibrinogen
 - Trauma set includes Type & Screen, CBC, Lytes,Crea,Urea,Glu,lipase,ETOH,INR/PTT,Venous BG
- ◇ Give platelets first, room temp, free flowing, try to minimize IV pump use
- ◇ Use fluid warmer to warm Plasma and RCC
- ◇ For bleeding related to trauma, if within 3 hours from time of injury, for adults consider giving Tranexamic acid (TXA) 1 gm over 5-10 min, then 1 gm over 8 hours; For pediatric patients TXA 20-50 mg/kg IV load, then 10 mg/kg/hr (max total dose 100 mg/kg).
- ◇ Prevent /reverse acidosis
- ◇ Correct hypocalcemia– Ca Gluconate 1 gm IV slowly.
- ◇ If history of anticoagulation therapy, consider reversal agents (PCC, Praxbind, etc.)
- ◇ Cryoprecipitate if fibrinogen level is < 1.0 g/L; give 1 cryo pool (10U=adult dose)

To order MTP BY Meditech Order Entry: under Category “/M” F9 (look-up) → select MTP

The OE system will ask if you have a Trauma Set ordered as a baseline; If you have previously then you will add the FIB and MG.


If you haven't ordered a Trauma Set baseline, enter the Trauma Set and include under LAB category FIB and MG.

Trauma,Man BM0000457/16/ PRE ER
50/M CLRHED

Attend Dr

*Order Dr MARTKEVI Martin,Kevin Source Written

	Category	*Procedure	Procedure Name	*Priority	*Quantity	*Date	Time	Series
1	BBK	MTP	MASSIVE TRANSFUS...	S	1	T+ 28/11		
2	LAB	ADD	ADD PROCEDURE	R		T+ 28/11		
3								
4								

Error
 Enter FIB and MG in the test(s) fields under the LAB 'ADD' procedure. BBK staff will add 6 RCC,6 FFP and 1 PLT to Type and Screen

Close

*Trauma Set previously ordered? **Y**

Holcomb, J. B. et al. (2015, February 05). Transfusion of plasma, platelets, and red cells in a 1:1:1 vs a 1:1:2 ratio and mortality in patients with severe trauma: the PROPPR randomized clinical trial. *JAMA*, 313(5), 471-82.