RCH Emergency Department MASSIVE TRANSFUSION PROTOCOL (MTP)
Goal: Initiate early, aggressive therapy with Multiple Blood Products

Patient arrives hemodynamically unstable (SBP <70 or SPB < 90 and HR > 110) with suspected or known hemorrhage

Trauma 911 labs MUST be drawn before MTP to ensure Group & Screen is done. This is TIME 0

Treat correctable factors:
- Warmed Fluids -Use Level 1 Infuser
- Warm Patient- Bair Hugger
- Correct warfarin induced coagulopathy (Octaplex)
- Correct acidosis if possible
- Correct hypocalcemia
- Correct electrolyte abnormalities

Consider:
- Art line insertion ASAP for bloodwork
- Central line insertion

Within one hour identify and correct causes of bleeding.
- Warfarin induced coagulopathy – give Octaplex and/or Vitamin K immediately
- Pelvic binding
- Surgery
- Angioembolization
- Endoscopy
- Splinting

Until bleeding stopped, allow permissive hypotension.

2 U PRBC given rapidly
‘Trauma 911’ blood work ordered by EP/TTL (TIME 0)
(Enter Trauma 911 labs: For any TTL activation or Autolaunch)

Transfusion Medicine (TM) calls ED and asks if MTP is being initiated? UC checks with EP/TTL

No → Continue usual ED treatment
Yes

- MTP initiated and continued until stopped by EP/TTL
- Designated ED UC communicates with TM
- Designated Trauma RN/ MD communicates with UC

UC enters MTP Order set
- Blood work drawn 30, 60, 90 & 120 min from Time 0
- Exact times added by Trauma RN and/or Lab Assistant
- Lab Assistant available for drawing and/or labeling

TM automatically sends 1 U FFP for every 2 units PRBC issued
- EP/TTL may request additional units as required

After 8 U PRBC given - 1 Unit of platelets will be sent and repeated to maintain a ratio of 8 U PRBC: 1 U Platelets

If Fibrinogen < 1g/L - Cryoprecipitate issued by TM. After 2nd dose discuss with hematopathologist

Bleeding stopped? (Goal is 1 hour)

Yes → Repeat Blood work as per MD order
No → Consider Factor VIIa

MTP Order set (/ER MTP):
- Rapid Metabolic Profile- (use ABG syringe)
- Hg, Platelets
- PTT & INR, Fibrinogen

- TM will track and issue blood product ratio to ensure dilutional coagulopathy is avoided.
- TM will issue FFP, Platelets automatically to ensure adequate ratio (Order Entry not required)

Factor VIIa dosing:
- 40 µg/kg, repeat in 30 min and at 2 hrs if necessary
- Round to nearest vial size (i.e. 1.2, 2.4, 3.6, 4.8 mg vials)