ADHB Paediatric Massive Transfusion Protocol (MTP)

Team Leader Responsibilities
- Call Coag Lab and send Coag requests on the Labplus Urgent form (orange border)
- Activate protocol:
  - Call Blood Bank (ext 24015)
  - “I am activating the Paediatric Massive Transfusion Protocol Alpha, Bravo or Charlie”
- Call for each box as required and send someone to pick it up
- Alternate infusions of products to avoid swings in Hb / coag
- Call Blood Bank when stopping MTP

Blood Bank Responsibilities
- Ensure X-match sample processed ASAP after O neg release
- Call NZBS Medical Officer after issuing MTP Box One
- Thaw next box in advance and await request
- Ensure supply of platelets. If no neonatal platelets for Alpha, contact TMS
- Provide red cells less than 14 days old whenever possible

Contacts
- Blood Bank - Ext 24015
- Coagulation Lab - Ext 22069
- SSH Anaesth Co-ord – 021 334 344

Calcium
- For 10% Calcium Gluconate, give three times the mL/kg of 10% Calcium Chloride (CaCl)
- DO NOT give calcium in same IV line at same time as blood components

Additional treatment
- Ongoing haemorrhage after box 3 - if PR > 1.5 or APTT > 40 consider additional 20mL/kg FFP
- If fibrinogen < 1g/L consider additional 5mL/kg Cryoprecipitate
- If platelets < 75 x10^9/L consider additional 10mL/kg platelets
- If ionized Ca++ < 1mmol/L give 0.1mL/kg CaCl
- See Hyperkalaemia Guideline

Tranexamic Acid (TXA)
- Loading dose: 15mg/kg (max 1g)
- Consider maintenance infusion: 2mg/kg/hour

Typical component volumes
- Red cells: adult: 300
- FFP: adult: 245
- Platelets: neonatal: 50 mL adult: 270
- Cryoprecipitate: 100mL

Massive bleeding with either shock or abnormal coagulopathy

Ensure delivery of X-match specimen to Blood Bank

REQUEST, DELIVER AND TRANSFUSE AS BELOW:

MTP BOX ONE
- 1 adult RBC
- 1 adult FFP
- 1 Cryoprecipitate
- 1 neo Platelet

Transfuse 10mL/kg of each in the following order:
- RBC, FFP
- RBC, Cryo
- 0.15mL/kg CaCl

Beware of K+

and repeat

MTP BOX TWO
- 1 adult RBC
- 1 adult FFP
- 1 Cryoprecipitate
- 0.15mL/kg CaCl

MTP BOX THREE
- 1 adult RBC
- 1 adult FFP
- 150mL Platelets
- 0.1mL/kg CaCl

Beware of K+

and alternate boxes 2 & 3...

MTP BOX ONE
- 1 Whole Blood or 1 adult RBC and 1 adult FFP
- 0.1mL/kg CaCl

MTP BOX TWO
- 2 adult RBC
- 2 adult FFP
- 2 Cryoprecipitate
- 0.1mL/kg CaCl

MTP BOX THREE
- 2 adult RBC
- 2 adult FFP
- 1 adult Platelets
- 0.1mL/kg CaCl

Beware of K+

and alternate boxes 2 & 3...

Calcium
- For 10% Calcium Gluconate, give three times the mL/kg of 10% Calcium Chloride (CaCl)
- DO NOT give calcium in same IV line at same time as blood components

TXA
- Check Coags FBC ABGs K+Ca++
- Beware of K+

Repeat every 30 min

Typical component volumes
- Red cells: adult: 300
- FFP: adult: 245
- Platelets: neonatal: 50 mL adult: 270
- Cryoprecipitate: 100mL