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Paediatric Massive Haemorrhage Pathway (Paed MHP) Checklist

Medical decision to initiate MHP



& prepare forms

Phone "777"

State "This is an MHP, my location is ..."

- Complete a Massive Haemorrhage form (ref: 2410416) with patient addressograph label, date, location, contact phone number and patient weight. Send to Blood Bank asap. (Blood Bank will photocopy for subsequent boxes)
- ☐ Orderly or Operating Theatre Assistant (OTA) will go directly to Blood Bank
- ☐ Orderly or OTA will deliver blood/MHP box, then return to Blood Bank for next box



Activate MHP

Phone "80310" - Blood Bank

State "I am activating the Paediatric MHP"

- ☐ Confirm location and contact number
- ☐ Identify yourself as MHP Co-Ordinator & name the Clinical Team Leader
- ☐ Identify the patient (Full name and NHI)
- ☐ Identify MHP stream according to patient weight (Alpha, Bravo or Charlie)
- ☐ Provide brief patient diagnosis & other relevant information

Pre-Transfusion Testing (PTT) blood sample

(Antigen Group & Antibody Screen)

Clarify with Blood Bank

- ☐ Is there a valid group and screen?
 - If not, send a new pink tube blood sample (handwrite patient ID on tube)
- ☐ Blood Bank will supply emergency blood or group specific blood while the sample is being tested

Bleeding controlled?

Cease MHP

Phone Blood Bank Received too many blood components?

Send the most recently received blood components back to Blood Bank

Return to Blood Bank within 30 minutes to avoid wastage



Paediatric Massive Haemorrhage Pathway **Flow Chart**

Health New Zealand

MHP Co-Ordinator Responsibilities

- Initiate (call 777)
- **Prepare Massive Haemorrhage forms**
- Deliver or send form to Blood Bank via Lamson or eScan to preprogrammed Blood Bank ChristchurchBBeFax@nzblood.co.nz
- Activate the MHP (call 80310)
- Cease the MHP (call 80310)

Blood Bank Responsibilities

- Ensure PTT sample is processed ASAP after O neg release
- Call NZBS TMS after issuing MHP Box One
- Thaw next box in advance and await request
- Ensure supply of platelets. If no neonatal platelets for Alpha, contact TMS
- BRAVO Box 3: label platelets 'Give 150ml only'
- Provide the freshest red cells possible (less than 14 days)

Contacts

- Blood Bank ext. 80310
- Theatre OTA (0700-2300 hrs) 021 354378
- Coagulation Lab ext. 80374
- **Transfusion Medicine Specialist (TMS) via Blood Bank**

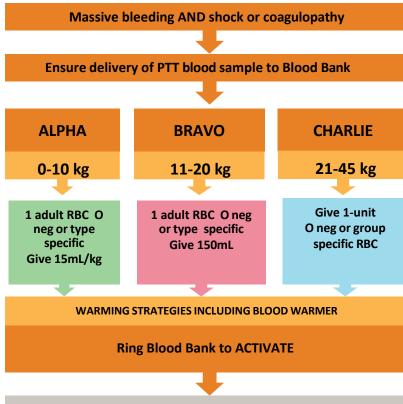
Additional Treatment Thresholds

- PR < 1.5 or APTT < 40 If not, consider additional 20mL/kg FFP
- Fibrinogen > 1g/L If not, consider additional 5mL/kg Cryoprecipitate
- Platelets > 75 x10⁹/L If not, consider additional 10mL/kg Platelets
- Ionized Ca⁺⁺ > 1mmol/L If not, give 0.3mL/kg Calcium Gluconate
- See Royal Children's Hospital Hyperkalaemia **Guideline:**

www.rch.org.au/clinicalguide/guideline_index/ Hyperkalaemia/

Calcium

- If only Calcium Chloride (CaCl) is available give a third of the calcium gluconate (CaGluc) dose
- DO NOT give calcium in the same IV line at the same time as blood components



REQUEST, DELIVER AND TRANSFUSE AS BELOW:

MHP BOX ONE 1 adult RBC 1 adult FFP 1 Cryoprecipitate 1 CMV neg Platelet

Give 10mL/kg of each in the following order: RBC, FFP RBC, Cryo 0.45mL/kg CaGluc **RBC. FFP RBC**, Platelets 0.45mL/kg CaGluc

Beware of K⁺

and repeat

MHP BOX ONE 1 adult RBC 1 adult FFP 0.3mL/kg CaGluc

MHP BOX TWO 1 adult RBC 1 adult FFP 1 Cryoprecipitate 0.3mL/kg CaGluc

MHP BOX THREE 1 adult RBC 1 adult FFP 150mL Platelets 0.3mL/kg CaGluc

Beware of K⁺

alternate boxes

2 & 3

MHP BOX ONE 2 adult RBC 2 adult FFP 0.3mL/kg CaGluc

MHP BOX TWO 2 adult RBC 1 adult FFP 2 Cryoprecipitate 0.3mL/kg CaGluc

> MHP BOX THREE 2 adult RBC 2 adult FFP

1 adult Platelets 0.3mL/kg CaGluc

• K+ / Ca2+

Repeat every

30 mins

Check:

Coags

• FBC

ABGs

Check:

Coags

ABGs

• K⁺ / Ca²⁺

Tranexamic Acid

• FBC

alternate boxes 2 & 3

Beware of K⁺

Tranexamic Acid (TXA)

- Loading dose: 15mg/kg (max 1g)
- Consider maintenance infusion: 5mg/kg/hour

Typical component volumes

 Red cells adult: 300 mLs FFP adult: 245 mLs adult: 270 mLs Platelets

Cryoprecipitate: 100mLs