

# Adult Massive Haemorrhage Pathway

**Massive Bleeding PLUS**  
Shock Signs or HR > 120 or SBP < 90

## Code Red

Trauma + ABC Score ≥ 2  
+ senior clinician approval

## Standard MHP

Medical or Surgical Bleeding

## Obstetric MHP

**2g Tranexamic Acid**

**1g Tranexamic Acid**

**1g Tranexamic Acid**

## Send Group + Screen

**Initiate:** Call Blood Bank 8234 Tauranga / 4776 Whakatane. Provide Patient Details  
**State "I am requesting the Red or Standard or Obstetric Stat Pack"**

## Red Stat Pack

2 RBC, 2 FFP

## Stat Pack

2 RBC

## Obstetric Stat Pack

2 RBC

**Reassess:** Ongoing Massive Bleeding + Shock?: Call Blood Bank

**Activate MHP:** Identify MHP Co-ordinator and call Blood Bank 8234 Tga / 4776 Whk  
**State "I am activating the Red or Standard or Obstetric MHP"**

## Code Red

Straight to Pack 2

## Standard Pack 1

2 RBC, 2 FFP

## Obstetric Pack 1

2 RBC, 3 Cryo

## Pack 2

4 RBC, 4 FFP  
3 Cryo

Alternating  
packs 2 & 3 until  
bleeding slowed

Then stop MHP, and  
start targeted transfusion.

(Use ClotPro for Guidance)  
Tauranga only

30mL Calcium Gluconate 10% with every pack ideally  
through different IV access than blood product, otherwise  
with large flush pre & post administration

### Bloods:

- repeat q30min
- Blood gas
- iCa<sup>2+</sup>
- FBC
- Coags
- Fibrinogen
- ClotPro  
(Viscoelastic testing)  
Tauranga only

## Pack 3

4 RBC, 4 FFP  
1 Platelet\*

## Coagulation Targets

INR < 1.5 | APTT < 40

Fibrinogen > 2g/L

Platelets > 75 x 10g/L

Ionised Ca<sup>2+</sup> > 1.1 mmol/L

## If Not, Give

4 U FFP

3 U Cryoprecipitate

1 U Platelets\*\*

30mL Ca<sup>2+</sup> Gluconate  
10%

## Obstetric Haemorrhage

- Manage Tone, Trauma, Tissue, Thrombin causes of haemorrhage
- Repeat TXA 1g 30 minutes after initial dose if significant ongoing bleeding

\*See notes on page 2

Tauranga Blood Bank: ph 8234  
Whakatane Blood Bank: ph 4776

**Te Whatu Ora**  
Health New Zealand  
Hauora a Toi Bay of Plenty

**NZBLOOD**  
Te Ratonga Toto O Aotearoa

## CODE RED - ABC Score

- Penetrating mechanism = 1
- SBP  $\leq$  90 mmHg = 1

• Positive eFAST\*\*\* = 1

• HR  $\geq$  120 bpm = 1

Code Red requires senior clinician approval and input, as activation identifies the highest risk trauma patients and needs a multi-service approach.

\*\*\*eFAST scan accuracy relies on the skill level of the practitioner

## Team Leader of the Resuscitation

- The team leader is the decision maker including activation of the MHP once the stat packs have been transfused
- Send urgent group & screen to blood bank
- Ensure Tranexamic Acid is administered, as a bolus through a fast flowing IV line



## MHP Co-ordinator

- Supports the Team Leader
- Once the MHP has been activated, communicate with the Blood Bank team



## Tasks (delegated as Necessary)

- Once Stat Packs have been transfused - reassess the patient in conjunction with the team leader
- If required after stat pack - activate MHP, state which MHP pathway (i.e. code red/standard/obstetric MHP)
  - If senior clinician requests MHP activation immediately, stat pack is still issued while the blood bank prepares pack 1/pack 2
- Ensure Blood Bank have your name, contact number and patient details
- Organize adequate Orderly / Health Care Assistant support
- Repeat MHP bloods q30min
- Ensure 30mL Calcium Gluconate 10% given with every MHP pack *ideally through different IV access than blood product, otherwise with large flush pre and post administration*
- Hand-over coordination role if patient location changes; ensure blood bank notified of new Co-ordinator's name and number
- Cease MHP once the patient is clinically stable, inform Blood Bank, **move to targeted therapy**
- Ensure transfusion documentation / checklists maintained; all swing labels retained
- After hours, co-ordinate if additional nursing resource is required

\*\*Whakatane should check Full Blood Count BEFORE giving platelets, avoid transfusing if PLT > 75 x 10g/L

## Blood Bank Tasks

- Process group & screen ASAP
- Liaise with MHP Co-ordinator
- Release Stat Pack and MHP Packs as per protocol / SOP
- Notify NZBS TMS as per SOP & manage inventory
- Maintain Blood Bank Tracking Sheet / Checklist documentation and eTraceline records
- Phone clinical area to check if next box is required
- Order 2 units of platelets when MHP is activated

Whakatane BEFORE releasing Pack 3, check platelet count and liaise with MHP Co-ordinator to confirm PLT count is < 75 x 10g/L and platelets clinically indicated



## Infusion Standards

- RBC, FFP, Cryoprecipitate:
  - warmed
  - standard blood infusion set
- Platelets:
  - warmed or room temp
  - new infusion set preferred, not essential



## Clinical Targets

- Surgical/radiological control of bleeding ASAP
- Normal pH/base deficit
- Normal body temperature
- A lower MAP may be tolerated until bleeding slowed
  - unless brain injury



## MHP Runner

- Contacted by Blood Bank or MHP Co-ordinator
- Stay with the MHP until advised by MHP Co-ordinator
- Return blood products to blood bank as advised by MHP Co-ordinator

