

Major haemorrhage in adult trauma

≥ 40% loss of total blood volume

4 litres in 24 hours 2 litres in 3 hours >150ml/min

Major Haemorrhage (MH) may manifest as:

- Heart rate > 110
- Systolic BP <90mmHg

Contact Transfusion Laboratory

Important phone numbers

Get senior help

Contact senior member of clinical team.
Contact senior ward nurses Contact portering services

Contact Transfusion

Ask Transfusion to 'initiate major haemorrhage protocol'

Assess ABC

IV access

Check patient identification

2 large cannula
Send blood samples, cross-match, FBC, coagulation, biochemistry
Consider arterial blood gas measurement

Check if tranexamic acid given, if not give as soon as possible at a dose of:

- 1g intravenously over 10 minutes followed by
- 1g over 8 hours

Resuscitate

IV warm fluids – crystalloid or colloid
Give oxygen

Give blood

Blood loss >40% blood volume is immediately life-threatening

Give 4 units via fluid warmer. Aim for Hb>80g/l
Give Group O if immediate need and/or blood group unknown

When laboratory results available

IF	GIVE
Falling Hb	Red cells
APPT and/or PT ration >1.5	FFP 15–20ml/kg
Fibrinogen <1.5g/l and obstetrics <2g/l	Cryoprecipitate (2 pools)
Platelet count <50 x 10 ⁹ /l	Platelets 1 adult dose order at 100 x 10 ⁹ /l

Before transfusion

- Check patient ID
- Use wristbands

Prevent coagulopathy

Anticipate need for platelets and FFP after 4 units blood replacement and continuing bleeding

Give Primary Major Haemorrhage (MH) Pack

Order Secondary Major Haemorrhage (MH) Pack

Correct hypothermia

Correct hypocalcaemia (keep ionised Ca >1.13mmol/L)

Send FBC and coagulation samples after every 3–5 units of blood given

Contact Haematologist

Secondary MH pack

- RBC 5 units
- FFP 4 units
- Platelets
- Cryoprecipitate

If bleeding continues repeat secondary pack

Alternate RBC and FFP and aim for a ratio of RBC:FFP of 1:1

Primary MH pack

- RBC 5 units
- FFP 4 units
- Platelets 1 unit

Reassess and document

Get help to stop bleeding

Contact surgeons, and clinical colleagues from other specialisms as appropriate