

# Major Haemorrhage in Adults

≥ 40% loss of total blood volume

4 litres in 24 hours

2 litres in 3 hours

> 150ml/min

## Get senior help

Contact Switchboard on 2222  
Activate Adult Major Haemorrhage  
and state your location

### Contact details for Transfusion Laboratory

On generation of Major Haemorrhage Alert (MH) the blood bank will contact the clinical area for patient information.

For any further communication with blood bank during the MH contact via the MH mobile phone number

**07580 971 564**

## Assess ABC

## IV access

### Check patient identification

2 large cannula

Send blood samples, cross-match, FBC, coagulation, biochemistry

Consider arterial blood gas measurement

### Blood loss >40% blood volume

- 1500–2000mls loss

### MH may manifest as

- Pulse > 110, RR > 30
- Hypotensive in trauma systolic BP < 90 mmHg
- Urine < 20mls/h

### 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 <sup>9</sup> /l	Platelets 1 adult dose order at 100 x 10 <sup>9</sup> /l

## Resuscitate

IV warm fluids – crystalloid or colloid  
Give oxygen

## Give blood

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

Give 2 units via fluid warmer. Aim for Hb > 80g/l  
Give Group O if immediate need and/or blood group unknown

### Before transfusion

- Check patient ID
- Use wristbands

### Alternate RBC and FFP

### Primary MH pack

- RBC 5 units
- FFP 4 units

### Trauma Primary Pack Only

- RBC 5 units
- FFP 4 units
- 1 pool platelets
- Aim for RBC:FFP Ratio 1:1

## Prevent coagulopathy

Anticipate need for platelets and FFP after 2 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

Give tranexamic acid for trauma patients and consider its use in non traumatic bleeding

Contact Haematologist

### Secondary MH pack

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

### Trauma Secondary Pack Only

- RBC 5 units
- FFP 4 units
- Cryoprecipitate
- Aim for RBC:FFP Ratio 1:1

If bleeding continues repeat secondary pack

Contact surgeons, gastroenterologists, obstetricians as appropriate

Reassess and document

## Get help to stop bleeding