East of England Regional Transfusion Committee

# Major haemorrhage in adults

**Pulse>110, RR>30** **Urine <20mls/h**

**Hypotensive in trauma, systolic BP< 90mmHg**

≥ 40% loss of total blood volume 4 litres in 24 hours 2 litres in 3 hours

## Get senior help

**Initiate major haemorrhage protocol by contacting relevant staff members and teams e.g. resus**

Contact Transfusion Laboratory

**Important phone numbers and prompts to tell the laboratory**

## Assess ABC

## IV access

Check patient identification – ID / Wristbands

**2 large cannula**

- Send blood samples: cross match, FBC, coagulation, biochemistry
- Consider arterial blood gas measurement
- Give tranexamic acid for trauma and obstetric patients and consider for others. Dose: 1g IV over 10 minutes then 1g over 8 hours

## Resuscitate

IV warm fluids – crystalloid or colloid

Give oxygen

## Give Blood

**Give up to 4 units via blood warmer. Aim for Hb>80g/L**

**Give Group O if immediate need and/or blood group unknown**

## Prevent coagulopathy

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

- If you use TEG/ROTEM please follow local policy
- Give Primary Major Haemorrhage (MH) Pack
- Order Secondary Major Haemorrhage Pack
- Correct hypothermia
- Correct hypocalcaemia (keep ionised Ca>1.13mmol/l)
- **Send FBC & coagulation samples after every 3 – 5 units of blood given**
- **Contact Haematologist**
- **If bleeding continues repeat secondary pack**

**Primary MH Pack**

- RBC 4 units
- FFP 4 units

Alternate RBC & FFP

Aim for RBC:FFP ratio 2:1

**Trauma Primary MH pack**

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

Aim for RBC:FFP 1:1

**Secondary MH Pack**

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

| When lab results available: | |
|---|---|
| **IF** | **GIVE** |
| APTT and/or PT ratio>1.5 | FFP 15-20 ml/kg |
| Fibrinogen <1.5g/L & Obstetrics <2g/L | Cryoprecipitate (2 pools) |
| Platelets <50 x $10^9$/l | Platelets 1 unit. |

## Get help to stop bleeding