

Trauma

Major trauma AND, despite volume resuscitation,
Senior clinician suspicion of major haemorrhage
OR ≥ 2 of:

- Penetrating injury
- FAST scan positive for intra-abdominal fluid
- HR > 120 beats/minute
- SBP < 90 mmHg

2222 'CODE RED TRAUMA'

Non-Trauma

Surgical or medical major haemorrhage
(NOT OBSTETRIC) defined as **any of**:

- > 150 ml/min blood loss
- Loss of half the circulating volume in < 2 hours
- Rapid blood loss leading to haemodynamic compromise despite volume resuscitation

2222 'MAJOR TRANSFUSION
PROTOCOL'

Essential Actions

- Physical methods to stop bleeding
- Take at least FBC, INR, Group & Save, Cross-Match, ABG & ROTEM, fibrinogen
- Involve appropriate specialists for definitive management
- Reverse anticoagulants: Octaplex for Warfarin
- For DOACs liaise with on-call Haematology consultant
- Tranexamic acid 1g in Trauma (if within 3 hours) and non-trauma **except** GI bleed
- Assign a person to liaise with Transfusion and provide patient details

Targets

Blood Pressure

- Systolic BP 80 – 100 mmHg
- In traumatic brain injury:
mean BP \geq 80 mmHg

Full Blood Count

- Hb 90-100 g/L
- Platelets > 100 x 10⁹
- Fibrinogen > 2 g/L

Metabolic

- Prevent hypothermia
- iCa²⁺ > 1.0 mmol/L
- pH > 7.20

ROTEM

- FIBTEM A5 > 10 mm
- EXTEM A5 > 35 mm
- CT < 85 seconds

Request

'Pack A'

- 4 units of RBC
- 6g of fibrinogen concentrate

Optimise targets

Use ROTEM result

Is bleeding controlled?

Yes

No

Repeat ROTEM and
ABG

'Pack B'

- 4 units of RBC
- 4 units of FFP

Optimise targets

Use ROTEM result

Is bleeding controlled?

Yes

No

Repeat ROTEM and
ABG

'Pack C'

If ongoing bleeding
after 6 units of RBCs

- 4 units of RBC
- 4 units of cryo
- 1 pool of platelets

Optimise targets

Use ROTEM result

Is bleeding controlled?

Yes

No

Repeat ROTEM and
ABG

'Pack D'

If ongoing bleeding or
ROTEM result not
available

- 4 units of RBC
- 4 units of FFP
- 1 pool of platelets
- 6g of fibrinogen concentrate

Optimise targets

ROTEM to guide
further products

Stand down, inform Transfusion, liaise with porters to return unused blood products

For information on interpreting ROTEM results, see separate 'ROTEM interpretation' prompt card