

Transfusion Management of Massive Haemorrhage in Adults

Ensure a senior member of staff is available to take charge of resuscitation



North West Regional Transfusion Committee
incorporating North Wales

Activation Tel Number(s)

Transfusion

Ext: 1584 or if not available
0151 431 0030

- Emergency O red cells
- location of supply:

2 units AED

2 units Delivery Suite

2 units Burns unit (MET)

*** Time to receive at this clinical area:**

- Group specific red cells
15 minutes + delivery time
- XM red cells
30 minutes + delivery time

Transfusion lab will contact the
Consultant Haematologist.

Haemostatic Drugs

**Tranexamic acid 1g
bolus over 15 minutes,
ideally within 1 hour of
tissue injury or trauma.
Followed by 1g infusion
over 8 hours**

**Vit k and Prothrombin
complex concentrate** for
warfarinised patients.

**STOP THE
BLEEDING**

Haemorrhage Control

Direct pressure / tourniquet if
appropriate
Stabilise fractures
Surgical intervention –
consider damage control
surgery
Interventional radiology
Endoscopic techniques
Obstetric techniques

**Consider Factor VIIa: Discuss
with Consultant Haematologist**

Cell salvage if available and appropriate

Consider ratios of other
components:
1 unit of red cells = c.250 mls
salvaged blood

Patient bleeding / collapses
Ongoing severe bleeding eg: 150 mls/min or
5 units of red cells in 4 hours
Burns Graft Surgery / Clinical shock

Activate Massive Haemorrhage Pathway

Call for help

'CODE RED, Location'
(including blood transfusion laboratory
Ext: 1584, portering/ transport staff)
Consultant involvement essential

Take bloods and send to lab:

XM, FBC, Coagulation screen,
fibrinogen, U+E, Ca²⁺

NPT: ABG

and

Order MHP 1

Red cells* 6 units
FFP 4 units

(*Emergency O blood, group specific
blood, XM blood depending on
availability)

Give MHP 1

Reassess

Suspected continuing haemorrhage
requiring further transfusion

Take bloods and send to lab:

FBC, Coagulation screen, fibrinogen,
U+E, Ca²⁺

NPT: ABG

Order MHP 2

Red cells 6 units
FFP 4 units
Platelets 1 dose (ATD)
Cryoprecipitate 2 packs

Give MHP 2

**Once MHP 2 administered, repeat
bloods:**

FBC, Coagulation screen, fibrinogen,
U+E, Ca²⁺

NPT: ABG

To inform further blood component
requesting as per clinicians request

RESUSCITATE
Airway
Breathing
Circulation

**Continuous cardiac
monitoring: Arterial /
CVP line**

Prevent Hypothermia

Use fluid warming device
and Bair hugger

Consider 10 mls **Calcium
chloride** 10% over 10 mins

2 packs cryoprecipitate if
fibrinogen < 1.5g/l (<2g/l in
obstetric haemorrhage)

Aims for therapy

Aim for:
Hb 80-100g/l
Platelets >75 x 10⁹/l
PT ratio < 1.5
APTT ratio < 1.5
Fibrinogen >1.5g/l
Ca²⁺ >1 mmol/l
Temp > 36°C
pH > 7.35 (on ABG)
Monitor for hyperkalaemia

STAND DOWN

Inform lab
Return unused
components
Complete
documentation
Including audit
proforma

ABG – Arterial Blood Gas
MHP – Massive Haemorrhage Pack

ATD- Adult Therapeutic Dose
NPT – Near Patient Testing

FFP- Fresh Frozen plasma
XM - Crossmatch

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