## **Transfusion Management of Massive Haemorrhage in Adults**

## Ensure a senior member of staff is available to take charge of resuscitation Activation Tel Number(s) Patient bleeding / collapses Ongoing severe bleeding eg:150 mls/min or Transfusion North West Regional Transfusion Committee incorporating North Wales Ext: 1584 or if not available 5 units of red cells in 4 hours 0151 431 0030 Burns Graft Surgery / Clinical shock •Emergency O red cells - location of supply: **Activate Massive Haemorrhage Pathway** 2 units AED 2 units Delivery Suite 2 units Burns unit (MET) \* Time to receive at this RESUSCITATE Call for help clinical area: •Group specific red cells Airway 'CODE RED, Location' 15 minutes + delivery time Breathing (including blood transfusion laboratory XM red cells Ext: 1584, portering/ transport staff) Circulation 30 minutes + delivery time **Consultant involvement essential Continuous cardiac** Transfusion lab will contact the Consultant Haematologist. monitoring: Arterial / Take bloods and send to lab: **CVP line** XM, FBC, Coagulation screen, fibrinogen, U+E, Ca2+ **Haemostatic Drugs** NPT: ABG **Prevent Hypothermia** Tranexamic acid 1g <u>and</u> Use fluid warming device bolus over 15 minutes, Order MHP 1 and Bair hugger ideally within 1 hour of Red cells\* 6 units tissue injury or trauma. 4 units Followed by 1g infusion Consider 10 mls Calcium (\*Emergency O blood, group specific chloride 10% over 10 mins over 8 hours blood, XM blood depending on availability) Vit k and Prothrombin complex concentrate for 2 packs cryoprecipitate if warfarinised patients. Give MHP 1 fibrinogen < 1.5g/l (<2g/l in obstetric haemorrhage) Reassess Suspected continuing haemorrhage STOP THE requiring further transfusion Take bloods and send to lab: Aims for therapy **BLEEDING** FBC, Coagulation screen, fibrinogen, Aim for: U+E. Ca2-Hb 80-100g/l NPT: ABG **Platelets** >75 x 10<sup>9</sup>/l **Haemorrhage Control** PT ratio < 1.5 Direct pressure / tourniquet if APTT ratio <1.5 appropriate Order MHP 2 Fibrinogen >1.5g/l Red cells 6 units Stabilise fractures Ca2+ >1 mmol/l 4 units Surgical intervention -> 36°C Temp consider damage control Platelets 1 dose (ATD) Ηα > 7.35 (on ABG) Cryoprecipitate 2 packs Monitor for hyperkalaemia surgery Interventional radiology Endoscopic techniques Obstetric techniques Give MHP 2 STAND DOWN Inform lab Consider Factor VIIa: Discuss Return unused Once MHP 2 administered, repeat with Consultant Haematologist components bloods: FBC, Coagulation screen, fibrinogen, Complete U+E, Ca<sup>2+</sup> Cell salvage if available and documentation NPT: ABG appropriate Including audit Consider ratios of other To inform further blood component proforma components: requesting as per clinicians request 1 unit of red cells = c.250 mls salvaged blood ABG - Arterial Blood Gas ATD- Adult Therapeutic Dose FFP- Fresh Frozen plasma

NPT - Near Patient Testing

XM - Crossmatch

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MHP - Massive Haemorrhage Pack