

# Transfusion Management of Massive Haemorrhage in Children

**Signs of Hypovolaemic shock, Coagulopathy or Ongoing severe bleeding**  
(overt / covert) and received 20ml/kg of red cells or 40ml/kg colloid/crystalloid in preceding hour

**Ensure a Consultant (ED or Paediatric Anaesthetist) is called to take charge**

**Activate Massive Haemorrhage Pathway**

Phone ext 52630  
**"I wish to activate the paediatric massive haemorrhage protocol (MHP) for a patient of less than (or more than) 20kg"**

- Retrieve Emergency O Red Cells from the ED blood fridge

**Bloods to lab:**

XM, FBC, PT, APTT, Fibrinogen, U+E, Ca<sup>2+</sup> (A)BG

**Give MHP 1**

Administer up to:

**Red cells 40 ml/kg**  
**FFP 20 ml/kg**  
**Platelets 10 ml/kg**

Total volume will depend on: weight, rate of blood loss, clinical signs and response

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

FBC, PT, APTT, fibrinogen, U+E, Ca<sup>2+</sup> (A)BG  
 To inform further blood component requesting

**Reassess**

**Suspected continuing haemorrhage = further transfusion**

**Further bloods:** FBC, PT, APTT, fibrinogen, U+E, Ca<sup>2+</sup>, (A)BG

**Order then give MHP 2**

**Red cells 40 ml/kg**  
**FFP 20 ml/kg**  
**Platelets 10 ml/kg**

Stand down  
 Inform lab.  
 Return unused components.  
 Complete documentation.

Weight	Red cells	FFP	Platelets	*Cryoprecipitate
<20kg	2 Adult units (500ml)	2 Paediatric units MB treated FFP (450ml)	1 Adult apheresis pack (200ml)	5 units (200ml)
>20kg	4 Adult units (1000ml)	4 Paediatric units MB treated FFP (900ml)	1 Adult apheresis pack (200ml)	10 units (400ml)

**\*Cryoprecipitate 10ml/kg MB treated; issued if Fibrinogen <1g/l**

(A)BG:(Arterial) Blood Gas, APTT:Activated partial thromboplastin time, FFP:Fresh Frozen plasma, MHP:Massive Haemorrhage Protocol, NPT:Near patient Testing, PT:Prothrombin Time, XM:Crossmatch. **\*\*Thromboprophylaxis should be considered when patient stable** V4 2013