# KKH Paediatric Massive Transfusion Protocol (MTP)

Massive transfusion in children is defined as transfusion of >40ml/kg (blood volume in children >1month old is approximately 80ml/kg)

MTP hotline to KKH blood bank: dial extension <u>8718</u> (only from CE/CICU/OT/Angio suite).

See below for MTP activation chart.

### Indications for MTP

Child given >40ml/kg fluid bolus or >20ml/kg blood. Primary cause of shock is haemorrhagic shock from uncontrolled bleeding.

Associated severe head injury/ spinal cord injury

Maintain normal cerebral perfusion pressure
Cerebral perfusion pressure
= MAP - ICP

NO associated severe head injury/ spinal cord injury

Haemostatic resuscitation with permissive tachycardia

# Systolic blood pressure goals:

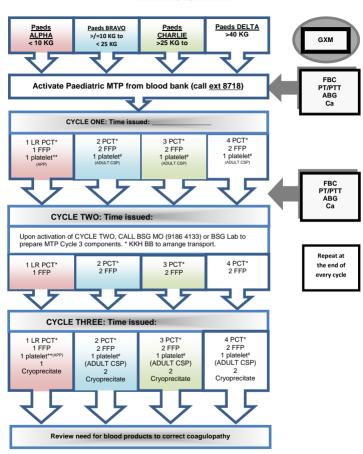
- <1month: SBP = 60mmHa
- 1month 1year: SBP = 70mmHq
- 1 to 10years old: SBP= 70 + {(age in years) x2}
- >10 years old: SBP = 90mmHg

#### PAEDIATRIC ANAESTHESIA

## Monitor for:

- 1. Temperature >35 and treat hyperthermia aggressively
- Treat hypotension aggressively in children with head injury or spinal cord injury
- Platelets
  - Keep platelets ≥ 50 x 109/L if NO significant head injury present
  - Keep platelets ≥ 100 x 109/L in presence of significant head injury
- 4. Blood gases/ electrolytes
  - pH >7.2
  - Base excess < -6</li>
  - Ca 2+ > 1.1mmol/L
  - Monitor for hyperkalemia
- 5. Coagulation profile
  - PT/ aPTT < 1.5x normal</li>
  - INR ≥1.5
- 6. Fibrinogen >1g/L
- 7. Lactate < 3mmol/L

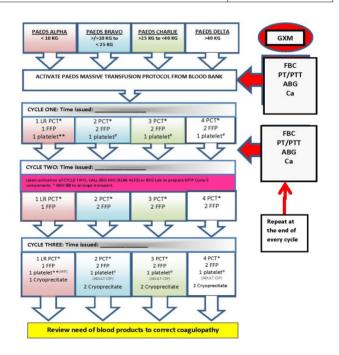
#### PAEDIATRIC ANAESTHESIA



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## MTP (Paeds) Workflow Sheet (For Blood Bank Use)

Affix Patient's Label	Name of Doctor:		
	Clinical Area: CE / CICU / OT / HD (circle 1)		
	Extension No.:		
Date & Time of specimen received:	Dial 8718 for		
Date & Time of activation:	MTP activation ONLY		



For CE/CICU/OT

Affix Patient Label		

# Paeds MTP Response Time

Date:			
Time of code activation:		h	
Name of doctor activating:			
Diagnosis:			
Most senior surgeon present: _			/NA
Most senior anaesthetist preser	nt:		/NA
Time at 1st MTP Pack RECEIV	ED:	Time at 1st MTP Pag	k ADMINISTRATED:
PCT	_h	PCT	h
FFP	_h	FFP	h
PLT	h	PLT	h
Time of code Cessation:		h	
Name of staff who informed ces	sation ti	me:	
Discharge status within 24 hour	s : Alive	/ Dead	
Discharge status after 24 hours	Alive/	ead	
Wastage of blood product(s): Y	es/ No		

## Instructions for staff:

- 1. Send a duplicate copy to Blood Bank attention to MTP in charge via internal mail
- 2. For CE/CICU, file the original copy in the patient casenotes for trauma coordinator to collect
- 3. For OT, trauma coordinator to collect the duplicate form from AU NM in charge