KIDS Clinical Guideline - Drug dose calculator

Date

Weight (kg):

insert here 22

Name:

write name here

All drugs to be given by intravenous route unless otherwise stated. It is the responsibility of the clinician to ensure drugs are used appropriately according to the clinical situation and doses double checked. KIDS/NTS does not accept any liability.

Weight checked by: Name..... Signed..... Prescriber : Name..... Signed.....

Single drug doses:

Induction agents for intubation	Dose
Ketamine (2 mg/kg)	44mg
Thiopentone (2-4 mg/kg)	44 - 88mg
Fentanyl (1-5 micrograms/kg)	22 - 110micrograms
Propofol (2-5 mg/kg)	44 - 110mg
Muscle relaxants for intubation	
Suxamethonium (Weight <10kg: 2mg/kg)	-
Suxamethonium (Weight >=10kg: 1mg/kg)	22mg
Rocuronium (1mg/kg)	22mg
Vecuronium (0.1mg/kg)	2.2 mg
Emergency drugs for cardiac arrest	
Adrenaline 1:10,000 (0.1ml/kg)	2.2ml
Atropine (20micrograms/kg)	440micrograms
Adenosine (0.1 - 0.5 mg/kg)	2.2 - 11mg
Amiodarone (5mg/kg)	110mg
Calcium gluconate 10% (0.5ml/kg)	11ml
Sodium Bicarbonate 8.4% (1ml/kg)	22ml
Anticonvulsants and drugs for raised ICP	
Lorazepam (0.1mg/kg)	2.2mg
Phenytoin (20mg/kg - over 20 mins)	440mg
Phenobarbitone (20mg/kg)	440mg
Paraldehyde 50%:Olive oil 50% (0.8ml/kg)	18ml PR
Mannitol dose (0.25 - 0.5 g/kg)	6 - 11grams
Mannitol volume Peripheral: 10% solution	55 - 110 ml
Mannitol volume Central: 20% solution	28 - 55 ml
3% saline (3ml/kg)	66ml

Drug doses for infusion:

Sedation		Amount	Dilutent - see key*	Total Volume	Rate	Dose
Morphine		22mg	D5/D10/NS	50ml	0.5 - 2 ml/hr	10-40micrograms/kg/h
Midazolam		66mg	D5/D10/DS/NS	50ml	0.5 - 3 ml/hr	0.5-3 micrograms/kg/min
Paralysis						
Rocuronium		Neat solution 200mg in 20ml			1.32 - 2.2 ml/hr	0.6 - 1mg/kg/h
Vecuronium		132mg	D5/D10/NS	50ml	0.5 - 2ml/hr	1 - 4micrograms/kg/min
Vasoactive drugs						
Dopamine	*Peripheral*	80mg	D5/D10/NS	50ml	4.1 - 16.5ml/hr	5 - 20micrograms/kg/min
	Central	330mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min
Dobutamine	*Peripheral*	80mg	D5/D10/NS	50ml	4.1 - 16.5ml/hr	5 - 20micrograms/kg/min
	Central	330mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min
Adrenaline	*Peripheral*	1mg	D5/D10/NS	50ml	0.66-33ml/hr	0.01 - 0.5 micrograms/kg/min
	Central	6.6mg	D5/D10/NS	50ml	0.1 - 5 ml/hr	0.01 - 0.5micrograms/kg/min
Noradrenaline	*Central*	6.6mg	D5/DS	50ml	0.1 - 5 ml/hr	0.01 -0.5micrograms/kg/min
Ductal patency drugs omitted as patient over 10kg						
-		-	-	-	-	-
-		-	-	-	-	-
Asthma drugs						
Salbutamol		For Salbutamol bolus dose please refer to BNFc				
Infusion	*Peripheral*	10mg	D5/NS	50ml	6.6 - 13.2 ml/hr	1 - 2micrograms/kg/min
Infusion	*Central*	25mg	D5/NS	50ml	2.6 - 5.3 ml/hr	1 - 2micrograms/kg/min
		Caution - monitor for toxicity if salbutamol dose higher than 20mcg/min				
Aminophylline	*Loading dose:*	110mg over 20 minutes; use 500mg/500ml concentration as per infusion				
Use ideal wt if obese		500 mg	D5	500ml	22 ml/hr	1mg/kg/h
		If patient is aged greater than 12 years please refer to BNFc for aminophylline dosing				
Magnesium sulphate 50%		1.76 ml	D5/NS	44 ml	132 ml/hr	880 mg over 20 mins
DKA drugs				*Note: decimal point below*		
Insulin		50units	D5/D10/NS	50ml	2.2ml/hr	0.1units/kg/h

*Dilutent key: D5 = 5% glucose D10 = 10% glucose NS = 0.9% saline DS - 0.45% saline and 5% glucose