



KIDS Clinical Guideline - Drug dose calculator

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.

Date Weight (kg): Name:

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

Single drug doses:	
Induction agents for intubation	
Ketamine (2 mg/kg)	Dose 90mg
Thiopentone (2-4 mg/kg)	90 - 180mg
Fentanyl (1-5 micrograms/kg)	45 - 225micrograms
Propofol (2-5 mg/kg)	90 - 225mg
Muscle relaxants for intubation	
Suxamethonium (Weight <10kg: 2mg/kg)	-
Suxamethonium (Weight >=10kg: 1mg/kg)	45mg
Rocuronium (1mg/kg)	45mg
Vecuronium (0.1mg/kg)	4.5 mg
Emergency drugs for cardiac arrest	
Adrenaline 1:10,000 (0.1ml/kg)	4.5ml
Atropine (20micrograms/kg)	900micrograms
Adenosine (0.1 - 0.5 mg/kg)	4.5-12mg
Amiodarone (5mg/kg)	225mg
Calcium gluconate 10% (0.5ml/kg)	20ml max
Sodium Bicarbonate 8.4% (1ml/kg)	45ml
Anticonvulsants and drugs for raised ICP	
Lorazepam (0.1mg/kg)	4mg max
Phenytoin (20mg/kg - over 20 mins)	900mg
Phenobarbitone (20mg/kg)	900mg
Paraldehyde 50%:Olive oil 50% (0.8ml/kg)	20ml PR max
Mannitol dose (0.25 - 0.5 g/kg)	11 - 23grams
Mannitol volume Peripheral: 10% solution	113 - 225 ml
Mannitol volume Central: 20% solution	56 - 113 ml
3% saline (3ml/kg)	135ml

Drug doses for infusion:			Total		
Sedation	Amount	Diluent - see key*	Volume	Rate	Dose
Morphine	45mg	D5/D10/NS	50ml	0.5 - 2 ml/hr	10-40micrograms/kg/h
Midazolam	100mg	D5/D10/DS/NS	50ml	0.7 - 4.1 ml/hr	0.5-3 micrograms/kg/min
Paralysis					
Rocuronium	Neat solution 300mg in 30ml			2.7 - 4.5 ml/hr	0.6 - 1mg/kg/h
Vecuronium	270mg	D5/D10/NS	50ml	0.5 - 2ml/hr	1 - 4micrograms/kg/min
Vasoactive drugs					
Dopamine	<i>Peripheral</i> 80mg	D5/D10/NS	50ml	8.4 - 33.8ml/hr	5 - 20micrograms/kg/min
	<i>Central</i> 625mg max	D5/D10/NS	50ml	1.1 - 4.3 ml/hr	5 - 20micrograms/kg/min
Dobutamine	<i>Peripheral</i> 80mg	D5/D10/NS	50ml	8.4 - 33.8ml/hr	5 - 20micrograms/kg/min
	<i>Central</i> 625mg max	D5/D10/NS	50ml	1.1 - 4.3 ml/hr	5 - 20micrograms/kg/min
Adrenaline	<i>Peripheral</i> 1mg	D5/D10/NS	50ml	1.35-67.5ml/hr	0.01 - 0.5 micrograms/kg/min
	<i>Central</i> 8mg	D5/D10/NS	50ml	0.17-8.44ml/hr	0.01 - 0.5micrograms/kg/min
Noradrenaline	<i>Central</i> 8mg	D5/DS	50ml	0.17-8.44ml/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				
	<i>Infusion Peripheral</i> 10mg	D5/NS	50ml	13.5 - 27.0 ml/hr	1 - 2micrograms/kg/min
	<i>Infusion Central</i> 25mg	D5/NS	50ml	5.4 - 10.8 ml/hr	1 - 2micrograms/kg/min
Caution - monitor for toxicity if salbutamol dose higher than 20mcg/min					
Aminophylline	Loading dose:		225mg over 20 minutes; use 500mg/500ml concentration as per infusion		
Use ideal wt if obese	500 mg	D5	500ml	45 ml/hr	1mg/kg/h
If patient is aged greater than 12 years please refer to BNFC for aminophylline dosing					
Magnesium sulphate 50%	3.6 ml	D5/NS	90 ml	270 ml/hr	1800 mg over 20 mins
DKA drugs					
Insulin	50units	D5/D10/NS	50ml	4.5ml/hr	0.1units/kg/h

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