



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 18mg
Thiopentone (2-4 mg/kg)	18 - 36mg
Fentanyl (1-5 micrograms/kg)	9 - 45micrograms
Propofol (2-5 mg/kg)	18 - 45mg
Muscle relaxants for intubation	
Suxamethonium (Weight <10kg: 2mg/kg)	18mg
Suxamethonium (Weight >=10kg: 1mg/kg)	-
Rocuronium (1mg/kg)	9mg
Vecuronium (0.1mg/kg)	0.9 mg
Emergency drugs for cardiac arrest	
Adrenaline 1:10,000 (0.1ml/kg)	0.9ml
Atropine (20micrograms/kg)	180micrograms
Adenosine (0.1 - 0.5 mg/kg)	0.9 - 4.5mg
Amiodarone (5mg/kg)	45mg
Calcium gluconate 10% (0.5ml/kg)	4.5ml
Sodium Bicarbonate 8.4% (1ml/kg)	9ml
Anticonvulsants and drugs for raised ICP	
Lorazepam (0.1mg/kg)	0.9mg
Phenytoin (20mg/kg - over 20 mins)	180mg
Phenobarbitone (20mg/kg)	180mg
Paraldehyde 50%:Olive oil 50% (0.8ml/kg)	7ml PR
Mannitol dose (0.25 - 0.5 g/kg)	2 - 5grams
Mannitol volume Peripheral: 10% solution	23 - 45 ml
Mannitol volume Central: 20% solution	11 - 23 ml
3% saline (3ml/kg)	27ml

Drug doses for infusion:				Total		
Sedation	Amount	Diluent - see key*	Volume	Rate	Dose	
Morphine	9mg	D5/D10/NS	50ml	0.5 - 2 ml/hr	10-40micrograms/kg/h	
Midazolam	27mg	D5/D10/DS/NS	50ml	0.5 - 3 ml/hr	0.5-3 micrograms/kg/min	
Paralysis						
Rocuronium	Neat solution 100mg in 10ml			0.54 - 0.9 ml/hr	0.6 - 1mg/kg/h	
Vecuronium	54mg	D5/D10/NS	50ml	0.5 - 2ml/hr	1 - 4micrograms/kg/min	
Vasoactive drugs						
Dopamine	<i>Peripheral</i> 80mg	D5/D10/NS	50ml	1.7 - 6.8ml/hr	5 - 20micrograms/kg/min	
	<i>Central</i> 135mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min	
Dobutamine	<i>Peripheral</i> 80mg	D5/D10/NS	50ml	1.7 - 6.8ml/hr	5 - 20micrograms/kg/min	
	<i>Central</i> 135mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min	
Adrenaline	<i>Peripheral</i> 1mg	D5/D10/NS	50ml	0.27-13.5ml/hr	0.01 - 0.5 micrograms/kg/min	
	<i>Central</i> 2.7mg	D5/D10/NS	50ml	0.1 - 5 ml/hr	0.01 - 0.5micrograms/kg/min	
Noradrenaline	<i>Central</i> 2.7mg	D5/DS	50ml	0.1 - 5 ml/hr	0.01 -0.5micrograms/kg/min	
Ductal patency						
Alprostadil (E1)	50micrograms	D5/D10/NS	50ml	2.7 - 10.8 ml/hr	5 - 20nanograms/kg/min	
Dinoprostone (E2)	50micrograms	D5/D10/NS	50ml	2.7 - 10.8 ml/hr	5 - 20nanograms/kg/min	
Asthma drugs						
Salbutamol	For Salbutamol bolus dose please refer to BNFC					
	<i>Infusion Peripheral</i> 10mg	D5/NS	50ml	2.7 - 5.4 ml/hr	1 - 2micrograms/kg/min	
	<i>Infusion Central</i> 25mg	D5/NS	50ml	1.1 - 2.2 ml/hr	1 - 2micrograms/kg/min	
Aminophylline	<i>Loading dose:</i>		45mg over 20 minutes; use 500mg/500ml concentration as per infusion			
Use ideal wt if obese	500 mg	D5	500ml	9 ml/hr	1mg/kg/h	
If patient is aged greater than 12 years please refer to BNFC for aminophylline dosing						
Magnesium sulphate 50%	0.72 ml	D5/NS	18 ml	54 ml/hr	360 mg over 20 mins	
DKA drugs <i>Note: decimal point below</i>						
Insulin	22.5units	D5/D10/NS	50ml	2 ml/hr	0.1units/kg/h	

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