



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 9mg
Thiopentone (2-4 mg/kg)	9 - 18mg
Fentanyl (1-5 micrograms/kg)	4.5 - 22.5micrograms
Propofol (2-5 mg/kg)	9 - 22.5mg
Muscle relaxants for intubation	
Suxamethonium (Weight <10kg: 2mg/kg)	9mg
Suxamethonium (Weight >=10kg: 1mg/kg)	-
Rocuronium (1mg/kg)	4.5mg
Vecuronium (0.1mg/kg)	0.45 mg
Emergency drugs for cardiac arrest	
Adrenaline 1:10,000 (0.1ml/kg)	0.45ml
Atropine (20micrograms/kg)	100micrograms
Adenosine (0.1 - 0.5 mg/kg)	0.45 - 2.25mg
Amiodarone (5mg/kg)	22.5mg
Calcium gluconate 10% (0.5ml/kg)	2.25ml
Sodium Bicarbonate 8.4% (1ml/kg)	4.5ml
Anticonvulsants and drugs for raised ICP	
Lorazepam (0.1mg/kg)	0.45mg
Phenytoin (20mg/kg - over 20 mins)	90mg
Phenobarbitone (20mg/kg)	90mg
Paraldehyde 50%:Olive oil 50% (0.8ml/kg)	4ml PR
Mannitol dose (0.25 - 0.5 g/kg)	1 - 2grams
Mannitol volume Peripheral: 10% solution	11 - 23 ml
Mannitol volume Central: 20% solution	6 - 11 ml
3% saline (3ml/kg)	14ml

Drug doses for infusion:				Total	
Sedation	Amount	Diluent - see key*	Volume	Rate	Dose
Morphine	4.5mg	D5/D10/NS	50ml	0.5 - 2 ml/hr	10-40micrograms/kg/h
Midazolam	13.5mg	D5/D10/DS/NS	50ml	0.5 - 3 ml/hr	0.5-3 micrograms/kg/min
Paralysis					
Rocuronium	Neat solution 100mg in 10ml			0.27 - 0.45 ml/hr	0.6 - 1mg/kg/h
Vecuronium	27mg	D5/D10/NS	50ml	0.5 - 2ml/hr	1 - 4micrograms/kg/min
Vasoactive drugs					
Dopamine	<i>Peripheral</i> 67.5mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min
	<i>Central</i> 67.5mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min
Dobutamine	<i>Peripheral</i> 67.5mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min
	<i>Central</i> 67.5mg	D5/D10/NS	50ml	1 - 4 ml/hr	5 - 20micrograms/kg/min
Adrenaline	<i>Peripheral</i> 1mg	D5/D10/NS	50ml	0.14-6.8ml/hr	0.01 - 0.5 micrograms/kg/min
	<i>Central</i> 1.35mg	D5/D10/NS	50ml	0.1 - 5 ml/hr	0.01 - 0.5micrograms/kg/min
Noradrenaline	<i>Central</i> 1.35mg	D5/DS	50ml	0.1 - 5 ml/hr	0.01 -0.5micrograms/kg/min
Ductal patency					
Alprostadil (E1)	50micrograms	D5/D10/NS	50ml	1.4 - 5.4 ml/hr	5 - 20nanograms/kg/min
Dinoprostone (E2)	50micrograms	D5/D10/NS	50ml	1.4 - 5.4 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	1.4 - 2.7 ml/hr	1 - 2micrograms/kg/min
	<i>Infusion Central</i> 25mg	D5/NS	50ml	0.5 - 1.1 ml/hr	1 - 2micrograms/kg/min
Aminophylline	Loading dose: 22.5mg over 20 minutes; use 500mg/500ml concentration as per infusion				
Use ideal wt if obese	500 mg	D5	500ml	4.5 ml/hr	1mg/kg/h
If patient is aged greater than 12 years please refer to BNFC for aminophylline dosing					
Magnesium sulphate 50%	0.36 ml	D5/NS	9 ml	27 ml/hr	180 mg over 20 mins
DKA drugs Note: decimal point below					
Insulin	11.3units	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