



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 100mg |
| Thiopentone (2-4 mg/kg) | 100 - 200mg |
| Fentanyl (1-5 micrograms/kg) | 50 - 250micrograms |
| Propofol (2-5 mg/kg) | 100 - 250mg |
| Muscle relaxants for intubation | |
| Suxamethonium (Weight <10kg: 2mg/kg) | - |
| Suxamethonium (Weight >=10kg: 1mg/kg) | 50mg |
| Rocuronium (1mg/kg) | 50mg |
| Vecuronium (0.1mg/kg) | 5 mg |
| Emergency drugs for cardiac arrest | |
| Adrenaline 1:10,000 (0.1ml/kg) | 5ml |
| Atropine (20micrograms/kg) | 1000micrograms |
| Adenosine (0.1 - 0.5 mg/kg) | 5-12mg |
| Amiodarone (5mg/kg) | 250mg |
| Calcium gluconate 10% (0.5ml/kg) | 20ml max |
| Sodium Bicarbonate 8.4% (1ml/kg) | 50ml |
| Anticonvulsants and drugs for raised ICP | |
| Lorazepam (0.1mg/kg) | 4mg max |
| Phenytoin (20mg/kg - over 20 mins) | 1000mg |
| Phenobarbitone (20mg/kg) | 1000mg |
| Paraldehyde 50%:Olive oil 50% (0.8ml/kg) | 20ml PR max |
| Mannitol dose (0.25 - 0.5 g/kg) | 13 - 25grams |
| Mannitol volume Peripheral: 10% solution | 125 - 250 ml |
| Mannitol volume Central: 20% solution | 63 - 125 ml |
| 3% saline (3ml/kg) | 150ml |

| Drug doses for infusion: | | | Total | | |
|---|---|---------------------------|--|-------------------|------------------------------|
| Sedation | Amount | Diluent - see key* | Volume | Rate | Dose |
| Morphine | 50mg | D5/D10/NS | 50ml | 0.5 - 2 ml/hr | 10-40micrograms/kg/h |
| Midazolam | 100mg | D5/D10/DS/NS | 50ml | 0.8 - 4.5 ml/hr | 0.5-3 micrograms/kg/min |
| Paralysis | | | | | |
| Rocuronium | Neat solution 300mg in 30ml | | | 3 - 5 ml/hr | 0.6 - 1mg/kg/h |
| Vecuronium | 300mg | D5/D10/NS | 50ml | 0.5 - 2ml/hr | 1 - 4micrograms/kg/min |
| Vasoactive drugs | | | | | |
| Dopamine | <i>Peripheral</i> 80mg | D5/D10/NS | 50ml | 9.4 - 37.5ml/hr | 5 - 20micrograms/kg/min |
| | <i>Central</i> 625mg max | D5/D10/NS | 50ml | 1.2 - 4.8 ml/hr | 5 - 20micrograms/kg/min |
| Dobutamine | <i>Peripheral</i> 80mg | D5/D10/NS | 50ml | 9.4 - 37.5ml/hr | 5 - 20micrograms/kg/min |
| | <i>Central</i> 625mg max | D5/D10/NS | 50ml | 1.2 - 4.8 ml/hr | 5 - 20micrograms/kg/min |
| Adrenaline | <i>Peripheral</i> 1mg | D5/D10/NS | 50ml | 1.5-75ml/hr | 0.01 - 0.5 micrograms/kg/min |
| | <i>Central</i> 8mg | D5/D10/NS | 50ml | 0.19-9.38ml/hr | 0.01 - 0.5micrograms/kg/min |
| Noradrenaline | <i>Central</i> 8mg | D5/DS | 50ml | 0.19-9.38ml/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 | 15.0 - 30.0 ml/hr | 1 - 2micrograms/kg/min |
| | <i>Infusion Central</i> 25mg | D5/NS | 50ml | 6.0 - 12.0 ml/hr | 1 - 2micrograms/kg/min |
| Caution - monitor for toxicity if salbutamol dose higher than 20mcg/min | | | | | |
| Aminophylline | Loading dose: | | 250mg over 20 minutes; use 500mg/500ml concentration as per infusion | | |
| Use ideal wt if obese | 500 mg | D5 | 500ml | 50 ml/hr | 1mg/kg/h |
| If patient is aged greater than 12 years please refer to BNFC for aminophylline dosing | | | | | |
| Magnesium sulphate 50% | 4 ml | D5/NS | 100 ml | 300 ml/hr | 2 grams over 20 mins |
| DKA drugs | | | | | |
| Insulin | 50units | D5/D10/NS | 50ml | 5.0ml/hr | 0.1units/kg/h |

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