



**PICU STANDARD INFUSIONS**

<b>Drug</b>	<b>To make standard solution</b>	<b>Concentration</b>	<b>Dose range<sup>2</sup></b>
<b>Respiratory</b>			
Aminophylline	1 mg/ml solution in 5% dextrose	1 ml/kg/hr = 1 mg/kg/hr	0.5 -1 mg/kg/hr
Salbutamol	1 mg/ml solution in 5% dextrose	0.06 ml/kg/hr = 1 microg/kg/min	1 - 8 microg/kg/min
<i>Salbutamol (peripheral inf)</i>	<i>200 microg/ml in 5% dextrose</i>	<i>0.012 ml/kg/hr = 1 microg/kg/min</i>	<i>Start 1-2 microg/kg/min</i>
<b>Cardiovascular</b>			
Adrenaline	0.3 mg/kg in 50ml 5% dextrose	1 ml/hr = 0.1 microg/kg/min	0.1 - 4 microg/kg/min
Amiodarone	15 mg/kg in 50ml 5% dextrose	1 ml/hr = 5 microg/kg/min	5 -15 microg/kg/min
Dobutamine <sup>1</sup>	15 mg/kg in 50ml 5% dextrose	1 ml/hr = 5 microg/kg/min	5 - 20 microg/kg/min
Dopamine <sup>1</sup>	15 mg/kg in 50ml 5% dextrose	1 ml/hr = 5 microg/kg/min	5 - 20 microg/kg/min
<i>Dopamine (peripheral inf)</i>	<i>3 mg/kg in 50 ml 5% dextrose</i>	<i>1 ml/hr = 1 microg/kg/min</i>	<i>5 – 10 microg/kg/min</i>
Esmolol	30 mg/kg in 50ml 5% dextrose	1 ml/hr = 10microg/kg/min	20 -200 microg/kg/min
Furosemide	25 mg/kg in 50 ml 0.9% NaCl	1 ml/hr = 0.5 mg/kg/hr	0.1 -1 mg/kg/hr (max 4mg/min)
GTN Glyceryl trinitrate	3 mg/kg in 50ml 5% dextrose	1 ml/hr = 1 microg/kg/min	1 - 8 microg/kg/min (max 200 microg/min)
Milrinone	1.5 mg/kg in 50ml 5% dextrose	1 ml/hr = 0.5 microg/kg/min	0.3 - 0.75 microg/kg/min
Noradrenaline	0.3 mg/kg in 50ml 5% dextrose	1 ml/hr = 0.1microg/kg/min	0.1 - 4 microg/kg/min
Phentolamine	30 mg/kg in 50ml 5% dextrose	1 ml/hr = 10 microg/kg/min	5 - 50 microg/kg/min
Prostaglandin E2	30 microg/kg in 50ml 5% dextrose	1 ml/hr = 10 nanograms/kg/min	5 - 20 nanograms/kg/min
SNP Sodium Nitroprusside	3 mg/kg in 50ml 5% dextrose	1 ml/hr = 1 microg/kg/min	1 - 8 microg/kg/min
Vasopressin	0.3 Units/kg in 50ml	1 ml/hr = 0.0001 U/kg/min	0.0001 - 0.0008



	5% dextrose (max 50 Units/50ml)		Units/kg/min
<b>Neurological</b>			
Atracurium	NEAT	10 mg/ml	300 - 900 mcg/kg/hr
Fentanyl	0.1 mg/kg in 50ml 5% dextrose OR Neat (50 microg/ml) if over 25kg	1 ml/hr = 2 microg/kg/hr	1 - 5 microg/kg/hr
Ketamine	2.5 mg/kg (max 125 mg) in 50 ml 0.9% saline	1 ml/hr = 50microg/kg/hr	< 50 weeks corrected: 0.5 - 1 ml/hr ≥ 50 weeks corrected: 1 - 2 ml/hr
Midazolam <sup>1</sup>	3 mg/kg in 50ml 5% dextrose	1 ml/hr = 1 microg/kg/min	1 - 4 microg/kg/min
Morphine <sup>1</sup>	1 mg/kg in 50ml 5% dextrose	1 ml/hr = 20 microg/kg/hr	10 - 40 microg/kg/hr
Propofol	NEAT	10 mg/ml (1%)	2 - 4 mg/kg/hr
Thiopental <sup>3</sup>	125mg (NOT mg/kg) in 50ml with 0.9% saline (0.25% solution)	1 ml/hr = 2.5 <u>mg/hr</u> 0.4ml/hr = 1 <u>mg/hr</u>	1 - 8 <u>mg/kg/hr</u> (max 48 hours continuous infusion)
Vecuronium <sup>1</sup>	3 mg/kg in 50ml 5% dextrose	1 ml/hr = 1 microg/kg/min	1 - 4 microg/kg/min

The basis of many of these infusions is the rule of 3s, i.e. 3 x Wt (kg) of drug (mg) in 50ml will produce a solution of strength such that 1ml/hr = 1microg/kg/min.

<sup>1</sup> To be doubled for infants less than 10kg

<sup>2</sup> Dose may changed on PICU Consultants' instructions

<sup>3</sup> Thiopental infusion: Note this is a standard infusion (0.25%). Consider use of adult concentration (2.5%) in older children where large volumes required