

CHILDREN'S HEALTH IRELAND STANDARD CONCENTRATION INFUSION (SCI) TABLE - FOR IPATS USE ONLY

SCI TABLE FOR IPATS USE ONLY					Rate Calc (mL/hour) = $\frac{\text{Required Dose} \times \text{Default Rate (mL/hour)}}{\text{Default Start Dose}}$		
Refer to PICU SCI Tables for complete list of Drugs and Concentrations available on IPATS pump drug library							
Drug	Category	Weight Band	SCI	Diluent	Usual Dose Range	Default Dose and Rate Calculator <i>All Weights in kg - rounding can occur</i>	
						Default Start Dose	Default Rate (mL/hr)
Adrenaline	Cardio	All ≤5kg >5 - ≤10kg All >10kg	1mg/50mL 3mg/50mL 6mg/50mL	Glucose 5%w/v NaCl 0.9%w/v Glucose 10%w/v	0 -0.1microgram/kg/min	0.05microgram/kg/min	0.15 x Wt 0.05 x Wt 0.025 x Wt
Alteplase Load Weight-based >20kg also offered non weight-based option below	Haematology	≤2.5kg >2.5 - ≤5kg >5 - ≤10kg All >10kg	0.2mg/mL 0.5mg/mL 1mg/mL 2mg/mL	NaCl 0.9%w/v NaCl 0.9%w/v n/a n/a	0.1 - 0.5mg/kg over 10 mins	0.1mg/kg over 10 mins	VTBI (mL) = 0.5 x Wt VTBI (mL) = 0.2 x Wt VTBI (mL) = 0.1 x Wt VTBI (mL) = 0.05 x Wt
Alteplase Infusion Weight-based >20kg also offered non weight-based option below	Haematology	≤2.5kg >2.5 - ≤5kg >5 - ≤10kg All >10kg	0.2mg/mL 0.5mg/mL 1mg/mL 2mg/mL	NaCl 0.9%w/v NaCl 0.9%w/v n/a n/a	0.1 - 0.5mg/kg/hour for 3-6 hours	0.1mg/kg/hour	0.5 x Wt 0.2 x Wt 0.1 x Wt 0.05 x Wt
Alteplase Load NON weight-based	Haematology	>20kg	2mg/mL	n/a	10-15mg over 10 mins	10mg over 10 mins	VTBI = 5mL
Alteplase Infusion NON weight-based	Haematology	>20kg	2mg/mL	n/a	15-90mg/hour	15mg/hour	7.5mL/hour
Aminophylline Load CVC	Respiratory	All <10kg 10 - 20kg >20kg	250mg/25mL 500mg/50mL 1000mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	5mg/kg over 30mins (Max 500mg)	5mg/kg over 30mins	VTBI (mL) = 0.5 x Wt VTBI (mL) = 0.5 x Wt VTBI (mL) = 0.25 x Wt
Aminophylline Maintenance CVC	Respiratory	All <10kg 10 - 20kg >20kg	250mg/25mL 500mg/50mL 1000mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	0-1mg/kg/hr	0.5mg/kg/hour	0.05 x Wt 0.05 x Wt 0.025 x Wt
Aminophylline Load Peripheral	Respiratory	≤2.5kg All >2.5kg	50mg/50mL 50mg/50mL or 500mg/500mL	Glucose 5%w/v NaCl 0.9%w/v	5mg/kg over 30mins (Max 500mg)	5mg/kg over 30mins	VTBI (mL) = 5 x Wt
Aminophylline Maintenance Peripheral	Respiratory	≤2.5kg All >2.5kg	50mg/50mL 50mg/50mL or 500mg/500mL	Glucose 5%w/v NaCl 0.9%w/v	0-1mg/kg/hr	0.5mg/kg/hour	0.5 x Wt
Dinoprostone	Cardio	All ≤5kg	50microgram/50mL	Glucose 5%w/v	5-10nanogram/kg/min	5nanogram/kg/min	0.3 x Wt
Dobutamine CVC (ideally)	Cardio	≤2.5kg >2.5 - ≤10kg All >10kg	75mg/50mL 150mg/50mL 250mg/50mL CVC only	Glucose 5%w/v NaCl 0.9%w/v Glucose 10%	2-20microgram/kg/min	5microgram/kg/min	0.2 x Wt 0.1 x Wt 0.06 x Wt
Dopamine CVC	Cardio	≤2.5kg >2.5 - ≤10kg All >10kg	75mg/50mL 150mg/50mL 250mg/50mL	Glucose 5%w/v NaCl 0.9%w/v Glucose 10%	2-20microgram/kg/min	5microgram/kg/min	0.2 x Wt 0.1 x Wt 0.06 x Wt
Dopamine Peripheral	Cardio	All	75mg/50mL or 1.5 mg/mL (variable volume)	Glucose 5%w/v NaCl 0.9%w/v	2-20microgram/kg/min	5microgram/kg/min	0.2 x Wt

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Drug	Category	Weight Band	SCI	Diluent	Usual Dose Range	Default Dose and Rate Calculator <i>All Weights in kg - rounding can occur</i>	
						Default Start Dose	Default Rate (mL/hr)
Esmolol <i>CVC (ideally)</i>	Cardio	All ≤5kg All >5kg	10mg/mL (Neat) 10mg/mL (Neat) or 2500mg/250mL	n/a	50-200microgram/kg/min	50microgram/kg/min	0.3 x Wt
Glycerol Trinitrate <i>CVC only</i>	Cardio	All ≤5kg All >5kg	20mg/50mL 50mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	0.2-10microgram/kg/min	1microgram/kg/min	0.15 x Wt 0.06 x Wt
Insulin DKA and Hyperglycaemia	Endo/GI	All ≤5kg	**5**units/50mL	NaCl 0.9%w/v	0-0.1unit/kg/hr	All weights: 0.02unit/kg/hr	5units/50mL: 0.2 x Wt
		Caution: 10-fold concentration difference			AMEND DOSE AS REQUIRED		
		All >5kg	**50**units/50mL		Usual start doses (Caution: 10-fold dosing difference) Neonatal hyperglycaemia: 0.01 unit/kg/hr DKA: 0.1 unit/kg/hr		50units/50mL: 0.02 x Wt
Isoprenaline Weight-based >5kg also offered non weight-based option below	Cardio	≤2.5kg >2.5 - ≤5kg >5 - ≤20kg	0.2mg/10mL 0.4mg/20mL 1mg/50mL	Glucose 5%w/v ONLY	Neonate: 0.02-0.5microgram/kg/min > 1 month: 0.02-1microgram/kg/min	0.05microgram/kg/min	All: 0.15 x Wt
Isoprenaline NON weight-based (Pts > 5kg)	Cardio	>5kg	1mg/50mL	Glucose 5%w/v ONLY	1-20mcg/min	1microgram/min	3ml/hr
Ketamine <i>CVC (ideally)</i>	CNS	≤2.5kg 2.5 - ≤10kg >10 - ≤20kg >20kg	50mg/50mL 50mg/50mL 100mg/50mL 200mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	Analgesia: 0-7microgram/kg/min Sedation: 5-20microgram/kg/min	2microgram/kg/min	0.12 x Wt 0.12 x Wt 0.06 x Wt 0.03 x Wt
Labetalol <i>(Large volume neat solution may be given using 250ml empty bag)</i>	Cardio	≤2.5kg >2.5kg only	50mg/50mL 50mg/50mL or 1mg/mL (variable volume)	Glucose 5%w/v NaCl 0.9%w/v	0.5-3mg/kg/hr	0.5mg/kg/hr	0.5 x Wt
Lidocaine 1% - Pain <i>(Large volume neat solution may be given using 250ml empty bag)</i>	CNS	All >5kg only	5mg/mL	Glucose 5%w/v NaCl 0.9%w/v	1.5 - 4mg/kg/hour	1.5mg/kg/hr	0.3 x Wt
Mannitol 20%	Fluids/Electr/ Nutrition	All ≤5kg >5 - ≤10kg All >10kg	10g/50mL 10g/50mL or 100g/500mL 100g/500mL	n/a	0.5-1g/kg over 30 mins	1g/kg	5 x Wt
Midazolam <i>(Large volume neat solution may be given using 250ml empty bag for patients > 20kg)</i>	CNS	≤2.5kg >2.5 - ≤5kg >5 - ≤10kg >10 - ≤20kg >20kg	10mg/50mL 25mg/50mL 50mg/50mL 50mg/50mL 100mg/50mL	Glucose 5%w/v NaCl 0.9%w/v Glucose 10%w/v	Sedation: 0-4microgram/kg/min Status Epilep: 0-24microgram/kg/min	1microgram/kg/min	0.3 x Wt 0.12 x Wt 0.06 x Wt 0.06 x Wt 0.03 x Wt
Milrinone Load	Cardio	All ≤5kg >5 - ≤10kg >10 - ≤20kg >20kg	5mg/50mL 10mg/50mL 20mg/50mL 50mg/50mL (Neat)	Glucose 5%w/v NaCl 0.9%w/v	50-75mcg/kg	50microgram/kg over 30 mins	VTBI (mL) = 0.5 x Wt VTBI (mL) = 0.25 x Wt VTBI (mL) = 0.125 x Wt VTBI (mL) = 0.05 x Wt
Milrinone Maintenance	Cardio	All ≤5kg >5 - ≤10kg >10 - ≤20kg >20kg	5mg/50mL 10mg/50mL 20mg/50mL 50mg/50mL (Neat)	Glucose 5%w/v NaCl 0.9%w/v	0.25-0.75 microgram/kg/min	0.5microgram/kg/min	0.3 x Wt 0.15 x Wt 0.075 x Wt 0.03 x Wt

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						Default Start Dose	Default Rate (mL/hr)
Morphine	CNS	≤2.5kg >2.5 - ≤5kg >5 - ≤10kg >10 - ≤20kg >20kg	2.5mg/50mL 5mg/50mL 10mg/50mL 20mg/50mL 50mg/50mL	Glucose 5%w/v NaCl 0.9%w/v Glucose 10%w/v	Neonate: 0-20microgram/kg/hr >1mth old: 0-40microgram/kg/hr	20microgram/kg/hr	0.4 x Wt 0.2 x Wt 0.1 x Wt 0.05 x Wt 0.02 x Wt
Noradrenaline	Cardio	All ≤5kg >5 - ≤10kg All >10kg	1mg/50mL 3mg/50mL 6mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	0 -0.1microgram/kg/min	0.05microgram/kg/min	0.15 x Wt 0.05 x Wt 0.025 x Wt
Paracetamol under 10kg Weight-based	CNS	≤10kg	10mg/mL	n/a	7.5mg/kg over 15 minutes	7.5mg/kg	0.75 x Wt
Paracetamol 10kg and over Weight-based	CNS	All >10kg	10mg/mL	n/a	15mg/kg over 15 minutes	15mg/kg	1.5 x Wt
Paracetamol 0.5-1g <i>NON weight-based</i>	CNS	>20kg ONLY	10mg/mL	n/a	1g over 15 mins	None	Variable
Phenylephrine <i>CVC only</i>	Cardio	All ≤5kg >5 - ≤10kg All >10kg	1mg/50mL 1mg/50mL 3mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	0-4microgram/kg/min Caution: Bolus for >20kg is mcg NOT mcg/kg to ensure max dose not exceeded	0.05microgram/kg/min	0.15 x Wt 0.15 x Wt 0.05 x Wt
Propofol 1% (PICU)	CNS	All	10mg/mL	n/a	0-4mg/kg/hr (Max duration 12hrs)	2mg/kg/hr	0.2 x Wt
Propofol 1% (THEATRE)	CNS	All	10mg/mL	n/a		4mg/kg/hr	0.4 x Wt
Remifentanil	CNS	All ≤5kg All >5kg	1mg/50mL 2mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	0.05-0.2microgram/kg/min	0.1microgram/kg/min	0.3 x Wt 0.15 x Wt
Sodium Chloride 3%	Fluids/Electr. Nutrition	All	0.5mmol/mL	n/a	1-2mmol/kg over 30 minutes Note: 1mmol = 2mL	1.5mmol/kg	3 x Wt
Salbutamol Weight-based >20kg also offered non weight-based option below	Respiratory	All ≤10kg All >10kg	10mg/50mL 10mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	0-5microgram/kg/min	≤10kg: 1microgram/kg/min >10kg lower default start: 0.2microgram/kg/min	0.3 x Wt 0.06 x Wt
Salbutamol <i>NON weight-based (Pts > 20kg)</i>	Respiratory	>20kg	10mg/50mL	Glucose 5%w/v NaCl 0.9%w/v	3-20microgram/min	5 microgram/min	1.5ml/hr
Sodium Nitroprusside	Cardio	All ≤5kg All >5kg	25mg/50mL 50mg/50mL	Glucose 5%w/v	0 -8microgram/kg/min	0.5microgram/kg/min	0.06 x Wt 0.03 x Wt
Tranexamic Acid Continuous DILUTE (Loading dose offered at beginning of infusion) <i>See next page for slow bolus</i>	Haematology	All	20mg/mL	Glucose 5%w/v NaCl 0.9%w/v	1-10mg/kg/hour	1mg/kg/hour	0.05 x Wt
Tranexamic Acid Continuous NEAT (Loading dose offered at beginning of infusion) <i>See next page for slow bolus</i>	Haematology	All	100mg/mL	n/a	1-10mg/kg/hour	1mg/kg/hour	0.01 x Wt

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Tranexamic Acid Wt-Based Slow Bolus Dilute Weight-based (>20kg also offered non weight-based option below)	Haematology	All	20mg/mL	Glucose 5%w/v NaCl 0.9%w/v	10-100mg/kg over 15 mins	10mg/kg	0.5 x Wt
Tranexamic Acid Wt-Based Slow Bolus NEAT Weight-based (>20kg also offered non weight-based option below)	Haematology	All	100mg/mL (Neat)	n/a	10-100mg/kg over 15 mins	10mg/kg	0.1 x Wt
Tranexamic Acid 1-2g Slow Bolus NEAT NON weight-based (Pts > 20kg)	Haematology	>20kg ONLY	100mg/mL (Neat)	n/a	1g over 15 minutes	1g	10mL
Vasopressin	Cardio	All ≤5kg >5 - ≤10kg All >10kg	5unit/50mL 20unit/50mL 50unit/50mL	Glucose 5%w/v NaCl 0.9%w/v	0.3- 2mUnit/kg/min 0.0003 - 0.002Units/kg/min Note: 1mUnit = 0.001unit	0.5mUnit/kg/min (0.0005unit/kg/min) Note: 1mUnit = 0.001unit	0.3 x Wt 0.075 x Wt 0.03 x Wt

Disclaimer: Every effort has been made to ensure the information is accurate and up to date and the authors cannot accept any legal responsibility for any errors or omissions. Differences in available drug preparations, and the manner in which concentrations are expressed, can produce minor discrepancies in final concentrations and calculated flow rates. In recognition of the need to stabilise children, other settings/hospitals may refer to this table but are solely responsible for all acts or omissions carried out in connection with, or in reliance on, the material provided.