

Standards for Common Continuous Intravenous Infusions used in PICU Birmingham Women and Children's Hospitals

All these standard concentration infusions should be used in the 'DRUG LIBRARY' mode of the infusion pump

For further information refer to the full monograph found on the intranet in the 'Injectable Medicines Guide' or contact PICU pharmacists for further advice

ALWAYS REFER TO MONOGRAPH FOR DRUG PREPARATION

DRUG (suggested weight range)	Fixed Concentration in Drug Library	Usual Dosing Range	Diluents	Route	Expiry in hours	Other Information (conversion factors)	Drug Library Bolus Information	Extravasation Risk
Acetylcysteine 2/50	2g in 50ml	6.25mg/kg/hour = 150mg/kg/day	G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	48	0.156ml/kg/hr = 6.25mg/kg/hr = 150mg/kg/day	No bolus allowed in DL	MODERATE
Adrenaline 1/50 <i>1kg - 4.9kg & emergency peripheral</i>	1mg in 50ml	0.01-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central (Peripheral in emergency until central access available)	48	0.3ml/kg/hr = 0.1microgram/kg/min	DL Default Bolus = 0.5 microgram/kg DL Bolus Hard Max = 0.5 microgram/kg	HIGH
Adrenaline 4/50 <i>5kg - 20kg</i>	4mg in 50ml	0.01-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central	48	0.08ml/kg/hr = 0.1microgram/kg/min		VERY HIGH
Adrenaline 8/50 <i>over 20kg</i>	8mg in 50ml	0.01-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central	48	0.04ml/kg/hr = 0.1microgram/kg/min		VERY HIGH
Alprostadil 50/50	50microgram in 50ml	5-100nanogram/kg/min	G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	24	0.3ml/kg/hr = 5nanogram/kg/min	No bolus allowed in DL	MODERATE
Amiodarone 300/50	300mg in 50ml	5-15microgram/kg/min	G5W only	Central (see Monograph for emergency peripheral use)	24	0.1ml/kg/hr = 10microgram/kg/min	No bolus allowed in DL	HIGH
Calcium CHLORIDE 25/50	25mmol in 50ml	0.1-1mmol/hour	G5W,G10W,NS,½ NS	Central distal lumen	48	1ml/hr = 0.5mmol/hr	No bolus allowed in DL	VERY HIGH
Calcium GLUCONATE 11/50	11.25mmol in 50ml	0.1-1mmol/hour	Neat 10% (0.225 mmol calcium/ml)	Central	24	1ml/hr = 0.2mmol/hr	No bolus allowed in DL	HIGH
Clonidine 750/50	750microgram in 50ml	0.2-2microgram/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	24	0.067ml/kg/hr = 1microgram/kg/hr	No bolus allowed in DL	LOW
DexMEDetomidine* 50/50 (generally just used in theatre)	50microgram in 50ml	0.2-1.4microgram/kg/hour	G5W, NS	Central preferred (Peripheral only if central unavailable)	24	1ml/kg/hr = 1microgram/kg/hr	No bolus allowed in DL	MODERATE
DexMEDetomidine** 200/50	200microgram in 50ml	0.2-1.4microgram/kg/hour	G5W, NS	Central preferred (Peripheral only if central unavailable)	24	0.25ml/kg/hr = 1microgram/kg/hr	No bolus allowed in DL	MODERATE
Dinoprostone 50/50	50microgram in 50ml	5-100nanogram/kg/min	G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	24	0.3ml/kg/hr = 5nanogram/kg/min	No bolus allowed in DL	HIGH
DOBUTamine 250/50	250mg in 50ml	5-20microgram/kg/min	G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	48	0.12ml/kg/hr = 10microgram/kg/min	No bolus allowed in DL	MODERATE
DOPamine 160/50 <i>emergency peripheral</i>	160mg in 50ml	5-20microgram/kg/min	G5W,G10W,NS,½ NS	Central (Peripheral in emergency until central access available)	48	0.19ml/kg/hr = 10microgram/kg/min	No bolus allowed in DL	HIGH
DOPamine 200/50 <i>central</i>	200mg in 50ml	5-20microgram/kg/min	G5W,G10W,NS,½ NS	Central	48	0.15ml/kg/hr = 10microgram/kg/min	No bolus allowed in DL	VERY HIGH
Fentanyl* 500/50 <i>1kg - 10kg</i>	500microgram in 50ml	0.5-5microgram/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.5ml/kg/hr = 5microgram/kg/hr	DL Default Bolus Dose = 1 microgram/kg	LOW
Fentanyl** 2500/50 <i>over 10kg</i>	2500microgram in 50ml	0.5-5microgram/kg/hour	Neat	Central or Peripheral	48	0.1ml/kg/hr = 5microgram/kg/hr	DL Bolus Hard Max = 1 microgram/kg	LOW
Furosemide 250/25 <i>2kg or over</i>	250mg in 25ml	0.1-1mg/kg/hour (max 20mg/hour)	Neat	Central preferred (Peripheral only if central unavailable)	48	0.1ml/kg/hr = 1mg/kg/hr	No bolus allowed in DL	MODERATE

Key: G5W= glucose 5%, G10W= glucose 10%, NS= sodium chloride 0.9%, ½ NS= sodium chloride 0.45%, PFS= prefilled syringe, WFI=water for injection; DL = Drug Library

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DRUG <i>(suggested weight range)</i>	Fixed Concentration in Drug Library	Usual Dosing Range	Diluents	Route	Expiry in hours	Other Information (conversion factors)	Drug Library Bolus Information	Extravasation Risk
Heparin LIVER 3000/50 <i>Post LIVER Transplant under 4kg</i>	3,000 units in 50ml	see liver transplant guide (DL hard max = 10units/kg/hr)	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.17ml/kg/hr = 10units/kg/hr	No bolus allowed in DL	LOW
Heparin LIVER 5000/50 <i>Post LIVER Transplant 4kg or over</i>	5,000 units in 50ml	see liver transplant guide (DL hard max = 10units/kg/hr)	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.1ml/kg/hr = 10units/kg/hr	No bolus allowed in DL	LOW
Heparin* 5000/50 <i>All other patients 2kg - 10kg</i>	5,000 units in 50ml	see BCH anticoagulation guide	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.1ml/kg/hr = 10units/kg/hr	DL Default Bolus Dose = 0.5 units/kg DL Bolus Hard Max = 5 units/kg	LOW
Heparin** 25000/50 <i>All other patients 10kg or over</i>	25,000 units in 50ml	see BCH anticoagulation guide	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.02ml/kg/hr = 10units/kg/hr		LOW
Insulin 10/50 <i>under 5 kg</i>	10 units in 50ml	0.05-0.2units/kg/hour	NS,½ NS	Central or Peripheral	24	0.5ml/kg/hr = 0.1units/kg/hr	No bolus allowed in DL	LOW
Insulin 50/50 <i>5kg or over</i>	50 units in 50ml	0.05-0.2units/kg/hour	NS,½ NS	Central or Peripheral	24	0.1ml/kg/hr = 0.1units/kg/hr	No bolus allowed in DL	LOW
Ketamine PAIN 50/50 <i>analgesia</i>	50mg in 50ml	1-6microgram/kg/hour	G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	24	0.01ml/kg/hr = 10microgram/kg/hr	No bolus allowed in DL	MODERATE
Ketamine SEDATION 500/50 <i>sedation</i>	500mg in 50ml	5-40microgram/kg/min	G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	24	0.03ml/kg/hr = 5microgram/kg/min	DL Default Bolus Dose = Bolus Hard Max = 1mg/kg	MODERATE
Labetalol 250/50	250mg in 50ml	0.5-3mg/kg/hour	Neat	Central preferred (Peripheral only if central unavailable)	24	0.1ml/kg/hr = 0.5mg/kg/hr	No bolus allowed in DL	MODERATE
Lidocaine 500/50 <i>(generally just used in theatre)</i>	500mg in 50ml	0.5-1mg/kg/hour	Neat	Central preferred (Peripheral only if central unavailable)	24	0.1ml/kg/hr = 1mg/kg/hr	No bolus allowed in DL	MODERATE
Midazolam SEDATION 50/50 <i>sedation</i>	50mg in 50ml	0.5-5microgram/kg/min	Neat Prefilled Syringe	Central or Peripheral	48	0.06ml/kg/hr = 1microgram/kg/min	DL Default Bolus Dose = Bolus Hard Max = 50microgram/kg	LOW
Midazolam SEIZURE 100/50 <i>seizure pathway</i>	100mg in 50ml	1-32microgram/kg/min	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.03ml/kg/hr = 1microgram/kg/min	No bolus allowed in DL	LOW
MILrinone* 5/50 <i>(generally just used in theatre)</i>	5mg in 50ml	0.3-0.75microgram/kg/min	PFS, G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	48	0.18ml/kg/hr = 0.3microgram/kg/min	No bolus allowed in DL	MODERATE
MILrinone** 10/50	10mg in 50ml	0.3-0.75microgram/kg/min	PFS, G5W,G10W,NS,½ NS	Central preferred (Peripheral only if central unavailable)	48	0.09ml/kg/hr = 0.3microgram/kg/min	No bolus allowed in DL	MODERATE
MORphine* 5/50 <i>1kg - 4.9kg</i>	5mg in 50ml	10 - 60microgram/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.1ml/kg/hr = 10microgram/kg/hr	DL Default Bolus Dose = 50 microgram/kg DL Bolus Hard Max = 50 microgram/kg	LOW
MORphine** 10/50 <i>5kg - 10kg</i>	10mg in 50ml	10 - 60microgram/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.05ml/kg/hr = 10microgram/kg/hr		LOW
MORphine*** 50/50 <i>over 10kg</i>	50mg in 50ml	10 - 60microgram/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	48	0.01ml/kg/hr = 10microgram/kg/hr		LOW
Nicardipine 50/50	50mg in 50ml	0.5-5microgram/kg/min	Neat	Central	24	0.06ml/kg/hr = 1microgram/kg/min	No bolus allowed in DL	HIGH
NORadrenaline 1/50 <i>1kg - 4.9kg</i>	1mg in 50ml	0.01-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central	48	0.3ml/kg/hr = 0.1microgram/kg/min	No bolus allowed in DL	VERY HIGH
NORadrenaline 4/50 <i>5kg - 20kg</i>	4mg in 50ml	0.01-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central	48	0.08ml/kg/hr = 0.1microgram/kg/min	No bolus allowed in DL	VERY HIGH
NORadrenaline 8/50 <i>over 20 kg</i>	8mg in 50ml	0.01-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central	48	0.04ml/kg/hr = 0.1microgram/kg/min	No bolus allowed in DL	VERY HIGH

Key: G5W= glucose 5%, G10W= glucose 10%, NS= sodium chloride 0.9%, ½ NS= sodium chloride 0.45%, PFS= prefilled syringe, WFI=water for injection

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Octreotide 1/50 <i>under 10kg</i>	1mg in 50ml	1-5microgram/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	24	0.05ml/kg/hour = 1 microgram/kg/hour	No bolus allowed in DL	LOW
Octreotide 5/50 <i>10kg and over</i>	5mg in 50ml	1-5microgram/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	24	0.01ml/kg/hour = 1 microgram/kg/hour	No bolus allowed in DL	LOW
Potassium Chloride <i>Pot-KCl 50kg & under</i>	1mmol in 1ml	0.4mmol/kg/hour <i>prescribe 1hr infusion at a time</i>	NS,½ NS	Central	4	0.4ml/kg/hr = 0.4mmol/kg/hr	No bolus allowed in DL	VERY HIGH
Potassium Chloride <i>Pot-KCl above 50kg</i>	1mmol in 1ml (max dose = 20mmol)	20mmol/hour <i>prescribe 1hr infusion at a time</i>	NS,½ NS	Central	4	20ml/hr = 20mmol/hr = max dose	No bolus allowed in DL	VERY HIGH
Propofol 1% <i>(generally just used in theatre)</i>	500mg in 50ml	PICU: 1-4mg/kg/hour Theatre: 9-15mg/kg/hour	Neat	Central preferred <i>(Peripheral only if central unavailable)</i>	24	1ml/kg/hr = 10mg/kg/hr	DL Default Bolus Dose = Bolus Hard Max = 2mg/kg	MODERATE
Remifentanyl 1/50 <i>(generally just used in theatre)</i>	1mg in 50ml	0.05-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central preferred <i>(Peripheral only if central unavailable)</i>	24	0.3ml/kg/hr = 0.1microgram/kg/min	DL Default Bolus Dose = 0.5 micrograms/kg	MODERATE
Remifentanyl 2/50 <i>(generally just used in theatre)</i>	2mg in 50ml	0.05-0.5microgram/kg/min	G5W,G10W,NS,½ NS	Central preferred <i>(Peripheral only if central unavailable)</i>	24	0.15ml/kg/hr = microgram/kg/min	DL Bolus Hard Max = 5 micrograms/kg	MODERATE
Rocuronium 50/25 <i>under 2kg</i>	50mg in 25ml	0.25-1mg/kg/hour	G5W,G10W,NS,½ NS	Central or Peripheral	24	0.5ml/kg/hr = 1mg/kg/hr	Usual Bolus Range = 0.3-1mg/kg, depending on patient weight	LOW
Rocuronium NEAT	100mg in 10ml <i>2kg -5kg</i>	0.25-1mg/kg/hour	Neat	Central or Peripheral	24	0.1ml/kg/hr = 1mg/kg/hr	DL Default Bolus Dose = 0.3-0.5mg/kg DL Bolus Hard Max = 1mg/kg	LOW
	200mg in 20ml <i>over 5kg - 25kg</i>	0.25-1mg/kg/hour	Neat	Central or Peripheral	24	0.1ml/kg/hr = 1mg/kg/hr		LOW
	500mg in 50ml <i>over 25kg</i>	0.25-1mg/kg/hour	Neat	Central or Peripheral	24	0.1ml/kg/hr = 1mg/kg/hr		LOW
Salbutamol 10/50	10mg in 50ml	1-2microgram/kg/min	G5W,G10W,NS,½ NS	Central or Peripheral	24	0.3ml/kg/hr = 1microgram/kg/min	No bolus allowed in DL	LOW
Sildenafil 10/25	10mg in 25ml USE DOSING ONLY MODE	Load 0.4mg/kg over 3 hrs then run at 0.07mg/kg/hour	G5W, NS	Central preferred <i>(Peripheral only if central unavailable)</i>	24	0.07mg/kg/hr = 0.18ml/kg/hr	DL programme error Use Dosing Only mode	MODERATE
Sodium Nitroprusside 10/50 <i>under 10kg</i>	10mg in 50ml	0.5-5microgram/kg/min	G5W,G10W,NS,½ NS	Central preferred <i>(Peripheral only if central unavailable)</i>	24	0.3ml/kg/hr = 1microgram/kg/min	No bolus allowed in DL	MODERATE
Sodium Nitroprusside 50/50 <i>10kg or over</i>	50mg in 50ml	0.5-5microgram/kg/min	G5W,G10W,NS,½ NS	Central preferred <i>(Peripheral only if central unavailable)</i>	24	0.06ml/kg/hr = 1microgram/kg/min	No bolus allowed in DL	MODERATE
Thiopental 1/40	1g in 40ml	2-8mg/kg/hour	WFI only	Central	24	0.08ml/kg/hr = 2mg/kg/hr	No bolus allowed in DL	VERY HIGH
Vancomycin 500/50 <i>10kg or less</i>	500mg in 50ml	See Vancomycin Continuous Infusion monograph	G5W,G10W,NS,½ NS	Central preferred <i>(Peripheral only if central unavailable)</i>	24	0.1ml/kg/hr = 1mg/kg/hr = 24mg/kg/day	No bolus allowed in DL	MODERATE
Vasopressin 10/50 (Argipressin) <i>under 5kg</i>	10units in 50ml	0.2-2 milliunits /kg/min	G5W,G10W,NS,½ NS	Central	24	0.3ml/kg/hr = 1 milliunit /kg/min	No bolus allowed in DL	VERY HIGH
Vasopressin 20/50 (Argipressin) <i>5kg or over</i>	20units in 50ml	0.2-2 milliunits /kg/min	G5W,G10W,NS,½ NS	Central	24	0.15ml/kg/hr = 1 milliunit /kg/min	No bolus allowed in DL	VERY HIGH

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