

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

All weights ranges are **SUGGESTIONS**: concentrations can be used in patients of any weight to allow easier titration or control of fluid volumes delivered

Always use the DRUG LIBRARY for standard infusions

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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
Acetylcysteine 2/50	2g in 50ml	6.25mg/kg/hour = 150mg/kg/day	G5W,G10W,NS,½ NS	Central preferred <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral in emergency until central access available)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(see Monograph for emergency peripheral use)</i>	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 <i>(generally just used in theatre)</i>	50microgram in 50ml	0.2-1.4microgram/kg/hour	G5W, NS	Central preferred <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral in emergency until central access available)</i>	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 <i>(Peripheral only if central unavailable)</i>	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= pre-filled 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	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	DL Bolus Hard Max = 5 units/kg	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	1-40microgram/kg/HOUR	G5W,G10W,NS,½ NS	Central preferred <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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 <i>(Peripheral only if central unavailable)</i>	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	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	DL Bolus Hard Max = 50 microgram/kg	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	0.2-2milliunits /kg/min	G5W,G10W,NS,½ NS	Central	24	0.3ml/kg/hr = 1milliunit /kg/min	No bolus allowed in DL	VERY HIGH
Vasopressin 20/50 (Argipressin) <i>5kg or over</i>	20units in 50ml	0.2-2milliunits /kg/min	G5W,G10W,NS,½ NS	Central	24	0.15ml/kg/hr = 1milliunit /kg/min	No bolus allowed in DL	VERY HIGH

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