NHS Lothian

INFUSION PRESCRIBING INFORMATION

(For further information and references see individual drug monographs and guidelines on the critical care intranet site**)**

Drug	Additional information (does not need prescribed on the kardex)	Dose/Amount	Diluent/volume (refers to the final volume of the infusion)	Rate/duration (ml/hr)
Actrapid	Actrapid is brand of soluble insulin used for glycaemic control and sliding scales. Prescribe as Actrapid.	50 units	50ml sodium chloride 0.9%	According to Insulin therapy in Critical Care protocol. Please note there are two protocols.
Adrenaline	**Single strength**	20mg	250ml glucose 5%	0-20mls/hr
All strengths via CVC*	80micrograms/ml	40mg	500ml glucose 5%	0-20mls/hr
CVC*- Central Venous Catheter	**Double strength**	40mg	250ml glucose 5%	0-20mls/hr
	160micrograms/ml	80mg	500ml glucose 5%	0-20mls/hr
	Quadruple strength	80mg	250ml glucose 5%	0-20mls/hr
	320micrograms/ml	160mg	500ml glucose 5%	0-20mls/hr
Alfentanil	500micrograms/ml	15mg	30ml undiluted	1-4mls/hr
	Remember PRN bolus doses	25mg	50ml undiluted	1-4mls/hr
Aminophylline	Load centrally with undiluted aminophylline (25mg/ml) or peripherally in 100ml glucose 5%, both over 20 minutes.	500mg (maintenance Infusion)	500ml glucose 5%	500micrograms/kg/hr (prescribe in ml/hr) initially, then adjusted according to level i.e. for 70kg patient 35mls/hr. **Based on ideal body weight.**
Amiodarone	Loading dose (large vein)	300mg	250ml glucose 5%	Over 1 hour
	Maintenance infusion via CVC*	900mg	500ml glucose 5%	21mls/hr over 23 or 24 hours (dependent upon whether loading dose was given).
Atracurium	10mg/ml	500mg	50ml undiluted	0.65-0.79mg/kg/hr. **Based on ideal body weight for obese patients**. Prescribe in ml/hr.
Clonidine	15micrograms/ml	750 micrograms	50ml sodium chloride 0.9%	Up to 2 micrograms/kg/hr, prescribe in ml/hr. i.e.9.5mls/hr for 70kg patient.
Dexmedetomodine	8microgram/ml	2000micograms	250ml glucose 5%	Initially 0.7micrograms/kg/hr, Range 0.2-1.4micrograms/kg/hr. See monograph.
Dobutamine	5mg/ml. CVC*	250mg	50ml undiluted	See monograph.
Epoprostenol	3000nanograms/ml	150,000nanograms	50ml sodium chloride 0.9%	As per CVVHD protocol and monograph.
Esomeprazole	Loading dose of 80mg in 100ml sodium chloride 0.9% over 30mins then continuous infusion	80mg	100ml sodium chloride 0.9%	10mls/hour for 72 hours.
Fentanyl PCA		1000micrograms	50ml sodium chloride 0.9%	Usually 10microgram bolus with 5 minute lock out.
Furosemide	10mg/ml	250mg	25ml undiluted	Usually 5-20mg/hr (0.5-2mls/hr)
Glyceryl trinitrate	1mg/ml via CVC*	50mg	50ml undiluted	0.6-12mls/hr
Heparin	For treatment of DVT, PE.1000units/ml undiluted.	40,000units	40ml undiluted	depends on target APTTr
Heparin	For anticoagulation in CVVHD 250units/ml.	10,000units	40ml sodium chloride 0.9%	According to CVVHD protocol.
Hydralazine	1mg/ml	60mg	60ml sodium chloride 0.9%	Initially 12-18ml/hr. Maintenance 3-9mls/hr
Insulin- see Actrapid which is the brand of insulin used in the iv insulin therapy in Critical Care protocol.				
Isoprenaline	Using isoprenaline sulfate	2.25mg	500ml glucose 5%	As per protocol, contact cardiology.
Ketamine	For status epilepticus. This is **not** the preparation used for pain.	2500mg	50ml undiluted	1-5mg/kg/hr (1.4-7ml/hr if 70kg) but discuss range to prescribe with consultant.
Labetalol	Centrally: 5mg/ml	200mg	40ml undiluted	0-24ml/hr
	Peripherally: 1mg/ml	500mg	500ml glucose 5%	0-120ml/hr
Mannitol 20%. Prescribe in as required therapy. Dose: 200ml, rate/duration:over 15mins, Route: IV, Indication: raised ICP				
Metaraminol	500microgram/ml	50mg	100ml glucose 5%	0-6ml/hr
Midazolam	Single strength. 1mg/ml	60mg	60ml glucose 5%	0-6ml/hr
	Double strength. 2mg/ml. Use in status epilepticus.	120mg	60ml glucose 5%	0-5ml/hr .See monograph for doses in status epilepticus.
Morphine	2mg/ml	100mg	50ml undiluted	0-5ml/hr
Naloxone	Info from NHS Lothian IV guide. 200micrograms/ml	10mg	50ml glucose 5%	Depends on response to previous IV boluses. See NHS Lothian IV guide.
Nicardipine	100microgram/ml Change IV infusion site every 12h if peripherally administered.	25mg	250ml glucose 5%	0-150ml/hr. See monograph for dose titration.
Nimodipine	200mcg/ml	10mg	50mls (undiluted)	5ml/hr for first two hours, increasing

				to 10mls/hr after 2 hours if BP stable.
Noradrenaline	**Single Strength**	20mg	250ml glucose 5%	0-20ml/hr
All strengths via CVC*	80micrograms/ml	40mg	500ml glucose 5%	0-20ml/hr
	Double strength	40mg	250ml glucose 5%	0-20ml/hr
	160micrograms/ml	80mg	500ml glucose 5%	0-20ml/hr
	Quadruple strength	80mg	250ml glucose 5%	0-20ml/hr
	320micrograms/ml	160mg	500ml glucose 5%	0-20ml/hr
Phenylephrine	20micrograms/ml	10mg	500ml sodium chloride 0.9%	10-50ml/hr
Phenytoin	Load dose is 20mg/kg.If patient haemodynamically unstable the loading dose may be divided into two doses.	Up to 1000mg	100ml sodium chloride 0.9%	Up to 50mg/minute, but usually given over 60minutes to prevent hypotension.
		1001mg to 2500mg	250ml sodium chloride 0.9%	
Propofol	**Remember PRN bolus doses**	1gram	100ml undiluted	Up to 4mg/kg/hr. Prescribe in ml/hr. i.e. 28mls/hr if 70kg .
Salbutamol	20microgram/ml	10mg	500ml glucose 5%	9-60mls/hr
Sodium bicarbonate 1.26% (500ml) and 8.4% (200ml) available. 1.26% may be given peripherally. 8.4% MUST be given centrally and only used in severe acidosis, fluid restriction or emergency such as cardiac arrest. Prescribe on 24 hour chart. Rate appropriate to correct acidosis, usually start at 50mls/hr of 1.26% solution.				
Sodium chloride 5% Prescribe in as required therapy. Dose: 125ml, rate/duration: over 15mins, Route: IV, Indication: raised ICP				
Sodium valproate	Any dose can be diluted in 50ml glucose 5% or sodium chloride 0.9% Note interacts with meropenem.	Status epilepticus: **Loading dose** 40mg/kg up to a maximum of 3000mg. **Intermittant:** Start 1000-1200mg IV BD	50ml glucose 5% or sodium chloride 0.9%	Status epilepticus: administer loading dose over 10 minutes
				Intermittent: max 20mg/min (prescribe in mls/hr) i.e. max 1200mg over 60minutes
				Continuous:4.1ml/hr
Vancomycin	Loading dose	750mg	250ml glucose 5%	over 1.5 hrs
	Loading dose	1000mg	250ml glucose 5%	over 2 hrs
	Loading dose	1500mg	500ml glucose 5%	over 3 hrs
	Loading dose	2000mg	500ml glucose 5%	over 4 hours
Vancomycin	continuous infusion	125mg	50ml glucose 5%	4.1ml/hr
		250mg	50ml glucose 5%	4.1ml/hr
		375mg	100ml glucose 5%	8.3ml/hr
		500mg	100ml glucose 5%	8.3ml/hr
		625mg	250ml glucose 5%	20.8ml/hr
		750mg	250ml glucose 5%	20.8ml/hr
		875mg	250ml glucose 5%	20.8ml/hr
		1000mg	250ml glucose 5%	20.8ml/hr
		1250mg	250ml glucose 5%	20.8ml/hr
		1500mg	500ml glucose 5%	41.6ml/r
		1750mg	500ml glucose 5%	41.6ml/hr
Vasopressin	For vasodilatory shock.	20units	50ml glucose 5%	1.5-6ml/hr
	For organ donation.	20units	50ml glucose 5%	1.2-10ml/hr
Thiopental Sodium	Loading dose 40ml/hr for 1 hour, then 24ml/hr for 2 hours, then titrate to effect.	1500mg	60ml water for injections	12-20ml/hr maintenance.

Electrolytes are prescribed on the 24 hour chart.

Calcium	4.5mmol or 4.46mmol (depending on preparation available) calcium gluconate in 100ml glucose 5% over at least 30minutes peripherally or centrally.
Magnesium	20mmol in 250ml glucose 5% peripherally or in 100ml glucose 5% centrally. Both over 4 hours.
Phosphate	**Addiphos** 20ml added to 40ml glucose 5% over 6 hours centrally. Rate 10mls/hr. 20ml added to 500ml glucose 5% over 6 hours peripherally. **Phosphate polyfusor** 500ml over 12 hours peripherally or centrally. Rate 41.6mls/hr. **Potassium acid phosphate (**1mmol/ml Phosphate)-40ml added to 20ml glucose 5% over 6 hours centrally. Rate 10mls/hr. **Sodium glycerophosphate (**1mmol/ml Phosphate**)**-40ml added to 20ml glucose 5% over 6 hours centrally. Rate 10mls/hr. **Sodium glycerophosphate** (1mmol/ml Phosphate)- 20ml added to 250ml glucose 5% or 40ml added to 500ml glucose 5% over 8 hours peripherally.
Potassium	Peripherally: 20mmol in 500ml glucose 5% or 40mmol in 500ml glucose 5% through a large vein. If ECG monitoring max 20mmol/hr, no ECG max 10mmol/hr.
Potassium	Centrally: 20mmol or 40mmol in 100ml glucose 5%. If ECG monitoring max 20mmol/hr, no ECG max 10mmol/hr.

Updated by: M Cromarty, Written by Morag R Naysmith Checked by: Claire Hannah, Anne Neally, Fiona Clarke September 2020.
Issue date: September 2020 Review Date: September 2022 Version: 20.1