

NEONATAL MEDICATION PROTOCOLS

MILRINONE
Created by: NCCU
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NCCU Clinical Guidelines
KEMH/PMH
Perth, Western Australia

DRUG:	MILRINONE
PRESENTATION:	Ampoules: 1mg/mL (10mL ampoules)
ACTION & INDICATION:	<p>Milrinone is a selective phosphodiesterase inhibitor which has positive inotropic and vasodilatory activity.</p> <p>Used in patients with refractory pulmonary hypertension, low cardiac output (especially after cardiac surgery) and in septic shock.</p> <p>There is some evidence for its use in <i>preventing</i> low cardiac output in patients undergoing cardiac surgery.</p> <p>It is for short term treatment only and should generally not be used for longer than 72 hours.</p>
DOSE :	<p>Any fluid imbalance should be corrected before commencing milrinone.</p> <p><i>The specified infusion rates are dependant upon preparing the infusion solution exactly as described below.</i></p> <p>< 30 weeks Loading dose: 135 microgram/kg given over 3 hours (ie 1.5mL/hr for 3 hours) then Maintenance dose: 0.2 microgram/kg/min (ie 0.4mL/hr)</p> <p>≥ 30 weeks Loading dose: 75 microgram/kg given over 60 minutes (ie 2.5mL/hr for 1 hour) then Maintenance dose: 0.5 – 0.75 microgram/kg/min (ie 1 – 1.5mL/hr)</p> <p>NB - In both regimens, consider reducing or omitting the loading dose if the patient is at risk of hypotension.</p>
PREPARATION:	<p>Use solution prepared in Pharmacy if available.</p> <p>Withdraw 1.5mg of milrinone per kg of baby's weight (1.5mL/kg) and dilute to 50mL with appropriate infusion fluid.</p> <p>Diluent: Sodium chloride 0.9%, Glucose 5%</p>
ADMINISTRATION:	Intravenous infusion
ADVERSE EFFECTS :	Hypotension, supraventricular and ventricular arrhythmias, hypokalaemia. Thrombocytopenia.
COMMENTS:	<p>Use with caution in patients who have severe obstructive aortic or pulmonary valvular disease or a history of arrhythmia.</p> <p>Dosage adjustment may be required in patients with impaired renal function.</p> <p>Incompatible with frusemide.</p>
REFERENCES:	<p>Paediatric Pharmacopoeia, 13th ed. BNF for Children 2012 Neofax 2013 Paediatric Dosage Handbook, 17th ed.</p>
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