

NEONATAL MEDICATION PROTOCOLS

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

DRUG:	MAGNESIUM SULPHATE
PRESENTATION:	Ampoule: 2.47g (49.3% w/v) in 5mL that is, contains 10mmol magnesium in 5mL Oral solution : 400mg/mL
ACTION & INDICATION:	Electrolyte supplement, pulmonary vasodilator For magnesium deficiency Persistent pulmonary hypertension of the newborn (PPHN)
DOSE:	<u>Magnesium deficiency</u> IV: 0.1 - 0.2 mmol /kg /dose 12 hourly (equivalent to 25 – 50mg/kg/dose) <u>Persistent pulmonary hypertension of the newborn</u> IV: Loading dose: 0.8 mmol / kg (200 mg / kg) over 30 minutes Maintenance dose: 0.08 - 0.3 mmol / kg / hour (20 – 75 mg/kg/hour) to maintain plasma magnesium concentration between 3.5 – 5.5mmol/L. May be used for up to 5 days.
PREPARATION:	Infusion: Diluent: 0.9% Sodium chloride or Glucose solutions Take 2.5 mL (5 mmol) and dilute to 50mL = 1 mmol in 10mL May be further diluted if required Minimum dilutions: IV: Take 1mL 10mmol in 5 ml solution and dilute to 5mL = 0.4 mmol/mL IM: Take 1mL 10mmol in 5 mL solution diluted to 2.5mL = 0.8 mmol/mL
ADMINISTRATION:	Intravenous – over 30-60 minutes Intravenous infusion
COMMENTS:	Contraindicated in patients with heart block or myocardial damage. Monitor magnesium levels. Range 0.75-1.2mmol/L PPHN: Levels to be 3.5 – 5.5 mmol/L Monitor blood pressure. Hypotension and bradycardia may occur with rapid infusion. Use with caution with impaired renal function. May increase effects of neuromuscular blocking agent or respiratory depressants
REFERENCES:	BNF for Children 2012 Neonatal Pharmacopoeia 2 nd Ed Royal Women's Hospital Melbourne Neofax
DATE:	September 2013