<table>
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<th><strong>DRUG:</strong></th>
<th><strong>MAGNESIUM SULPHATE</strong></th>
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| **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:** | **Magnesium deficiency**  
IV:  
0.1 - 0.2 mmol/kg/dose 12 hourly  
(equivalent to 25 – 50mg/kg/dose)  
**Persistent pulmonary hypertension of the newborn**  
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 2nd Ed Royal Women’s Hospital Melbourne  
Neofax |
| **DATE:** | September 2013 |