

## Magnesium Sulphate

Magnesium sulphate dosing may be weight based; ensure accuracy of documented weight before administration																	
<b>CAUTION: High Administration Risk Rating</b>																	
<b>Form</b>	1g (4mmol) per 2mL ampoule (50% w/v) equivalent to 2mmol Magnesium per 1mL																
<b>Reconstitution</b>	Already in solution <b>MUST be further diluted before administration.</b>																
<b>Compatibility &amp; Stability</b>	Sodium Chloride 0.9% Glucose 5%																
<b>Administration</b>	<p><b><u>IV Injection</u></b> 1-2g (4-8mmol) diluted to 10mL. Dose typically given over 10 -15 minutes, rate not exceeding 0.6mmol/min.</p> <p><b><u>IV Infusion – preferred method</u></b></p> <p>Max concentration <math>\underline{100\text{mg/mL} = 0.4\text{mmol/mL} = 10\%}</math></p> <p>Infuse via a volumetric infusion device at a rate appropriate to the indication (usually 4–8 mmol/hour). Use lowest possible rate to avoid ADRs</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Dose</th> <th>Volume</th> <th>Dilute in at least</th> <th>Infusion time</th> </tr> </thead> <tbody> <tr> <td>1-2g (4-8mmol)</td> <td>2-4mL</td> <td>50mL</td> <td>1-2 hours</td> </tr> <tr> <td>2-4g (8-16mmol)</td> <td>4-8mL</td> <td>100mL</td> <td>4-12 hours</td> </tr> <tr> <td>4-8g (16-32mmol)</td> <td>8-16mL</td> <td>250mL</td> <td>12-24 hours</td> </tr> </tbody> </table>	Dose	Volume	Dilute in at least	Infusion time	1-2g (4-8mmol)	2-4mL	50mL	1-2 hours	2-4g (8-16mmol)	4-8mL	100mL	4-12 hours	4-8g (16-32mmol)	8-16mL	250mL	12-24 hours
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<b>Monitoring</b>	<ul style="list-style-type: none"> <li>Monitor BP, respiratory rate and urinary output.</li> <li>Use lowest possible rate to avoid bradycardia, flushing and hypotension. Rapid infusion may precipitate hypotension. Monitor for signs of overdose- loss of patellar reflexes, weakness, nausea, sensation of warmth, flushing, drowsiness, double vision, and slurred speech.</li> </ul>																
<b>Extravasation</b>	Extravasation is likely to cause tissue damage due to high osmolarity.																
<b>Additional Information</b>	<div style="border: 1px solid blue; padding: 5px; margin-bottom: 10px; text-align: center;"> <b>For obstetric patients refer to CUMH guidelines or the Pharmacy Department</b> </div> <ul style="list-style-type: none"> <li>Up to 40g given over a period of 5 days may be necessary, however this is difficult to quantify as up to 50% of an IV dose is excreted in the urine.</li> <li>1 mmol = 2 mEq = 24 mg of elemental magnesium = 240 mg magnesium sulphate</li> </ul>																

**Information provided relates to Magnesium Sulphate manufactured by Aurum Pharmaceuticals and Ethypharm.**

*This information has been summarised to act as a guide for those administering IV medication. The monograph should be used in conjunction with the drug data sheet and BNF for information on dose, adverse effects, cautions and contra-indications. Further information is available from Pharmacy on 22146 or 22542*