

## Magnesium

<b>Indication</b>	Replacement of magnesium in deficient patients																				
<b>Dose</b>	20mmol																				
<b>Preparation</b>	<p>Each vial of magnesium sulphate 50% contains 2mmol/mL.</p> <ol style="list-style-type: none"> <li>1. Remove 10mL from a 100mL sodium chloride 0.9% or glucose 5%</li> <li>2. Draw up 10mL of magnesium sulphate using a filter needle</li> <li>3. Add to the bag using a new needle</li> </ol> <p>Magnesium can also be administered in a larger volume (500mL) if appropriate for patient</p>																				
<b>Administration</b>	<p>Infuse over 1 hour via a central or peripheral line.</p> <p>Infusion durations of up to 12hours are preferred in asymptomatic chronic malnutrition states.</p>																				
<b>Shelf-life</b>	Shelf-life is 24 hours when stored in a refrigerator																				
<b>Common Compatibility Issues</b>	Magnesium is considered compatible with glucose 5%, Hartmann's solution and sodium chloride 0.9%. See ICU compatibility chart for more information.																				
<b>Additional information</b>	<p>Recheck levels daily but at least 24 hours post infusion. The normal range for magnesium is 0.7 – 1.0mmol/L</p> <p>IV magnesium replacement is <b>NOT</b> indicated unless patient is symptomatic <b>OR</b> if magnesium levels fall below 0.5mmol/L</p> <p>Magnesium replacement is not normally indicated in patients receiving Continuous Renal Replacement Therapy.</p> <p>Patients with very low magnesium are best treated over several days, since up to 50% of the administered dose is lost in the urine.</p>																				
<b>Sample Label</b>	<table border="1" style="width: 100%; border-collapse: collapse; background-color: #ffff00;"> <tr> <th colspan="4" style="text-align: center; padding: 5px;"><b>DRUGS ADDED TO THIS INFUSION</b></th> </tr> <tr> <td colspan="2" style="padding: 5px;">PATIENT <i>A. Patient (A. Number)</i></td> <td colspan="2" style="padding: 5px;">WARD <i>ICU</i></td> </tr> <tr> <td style="padding: 5px;">DRUG <i>Magnesium in 100ml sodium chloride 0.9%</i></td> <td style="padding: 5px;">AMOUNT <i>20mmol (0.2mmol/ml)</i></td> <td style="padding: 5px;">ADD BY</td> <td style="padding: 5px;">CHECKED BY</td> </tr> <tr> <td style="padding: 5px;">DATE ADDED TIME ADDED</td> <td style="padding: 5px;">EXP. DATE EXP. TIME</td> <td colspan="2" style="padding: 5px;">BATCH No.</td> </tr> <tr> <td colspan="4" style="text-align: center; padding: 5px;"><b>DISCONTINUE IF CLOUDINESS OR PRECIPITATE DEVELOPS</b></td> </tr> </table>	<b>DRUGS ADDED TO THIS INFUSION</b>				PATIENT <i>A. Patient (A. Number)</i>		WARD <i>ICU</i>		DRUG <i>Magnesium in 100ml sodium chloride 0.9%</i>	AMOUNT <i>20mmol (0.2mmol/ml)</i>	ADD BY	CHECKED BY	DATE ADDED TIME ADDED	EXP. DATE EXP. TIME	BATCH No.		<b>DISCONTINUE IF CLOUDINESS OR PRECIPITATE DEVELOPS</b>			
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For review July 2026

## Documentation Controls

Development of Guideline:	Pharmacist – Critical Care & Theatres
Consultation with:	Pharmacy Department
Approved By:	ICU Sister's Meeting: June 2023  ICU Risk & Quality Meeting: August 2023  Surgical Division
Review Date:	July 2026
Key contact:	Pharmacist – Critical Care & Theatres

## References

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<https://www.medicinescomplete.com/mc/hid/current/index.htm> Accessed December 2018.
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- UKCPA. Minimum Infusion Volumes for Fluid Restricted Critically Ill Patients. 4<sup>th</sup> Edition (December 2012).

**\*\*\* End of Monograph \*\*\***