

# MAGNESIUM SULPHATE for IV infusion for HYPOMAGNEAEMIA

## Presentation

- Magnesium sulphate 50% (5 and 10ml ampoules)
- Magnesium sulphate 50% each ml contains 500mg or 2mmol

## Prescribing

Prescribe on the infusion section of the drug chart.

Dose: 0.2-0.4mmol/kg/dose.

Rate of infusion is dependent on patient stability:

Over 4 hours if asymptomatic and stable

Over 1 hour is symptomatic but stable

Over 30 minutes if symptomatic and unstable e.g. VF/VT- senior critical care/ cardiologist decision only

See separate monograph for use in asthma [here](#).

## Storage

Room temperature

## Preparation/ Dilution

For peripheral administration dilute to 20mg/ml or 0.08mmol/ml using sodium chloride 0.9% or glucose 5%.

## Route of Administration

Peripherally maximum 20mg/ml or 0.08mmol/ml

Centrally maximum 100mg/ml or 0.4mmol/ml

## Rate of Administration

Over 4 hours unless patient symptomatic as described above.

## Stability

Use immediately- assign 6 hour expiry to IV label.

## Flushes

Sodium chloride 0.9%, glucose 5%

## Common Compatibilities at Terminal Y-site

Maintenance fluids containing sodium chloride/ glucose with potassium chloride. Contact pharmacy for further advice.

## Monitoring/ Other comments

Infusion related risks (associated with higher rates): hypotension, cardiac arrhythmias, respiratory depression. Cardiac and respiratory rate monitoring advised.

Symptoms of magnesium deficiency that warrant faster infusions include prolongations of QT interval, ventricular and atrial tachycardias.

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## Extravasation Risk

Extreme of pH	Hyperosmolar	Vasoactive	Vesicant
no	20mg/ml~ 300 100mg/ml~800	no	no

## Links to other protocols/ guidelines

See Asthma Management Pathway

## Calculation example

15kg child requiring magnesium sulphate for serum magnesium of 0.54mmol/L, you decide to prescribe dose of 0.2mmol/kg.

Prescribe as follows on the infusion section of the drug chart:

MAGNESIUM SULPHATE 3mmol IV in 20ml glucose 5% over 4 hours.

DATE/ START TIME	INFUSION FLUID		CENTRAL / PERIPHERAL	MEDICINE ADDED	
	TYPE / STRENGTH	VOLUME		APPROVED NAME	DOSE
1/1	GLUCOSE 5%	20ml	C	MAGNESIUM SULPHATE	3mmol
Infusion Rate or duration Over 4 hours					*Dr to initial if c

Administer as follows:

Transfer 1.5ml magnesium sulphate 50% into a 20ml syringe and dilute to 20ml using glucose 5%. Give over 4 hours, at a rate of 5ml/hour. Use a syringe pump.