

## Medicines Management & Pharmacy Services (MMPS) LTHT Neonatal Unit Administration Guide Magnesium

- Dose:** *For hypomagnesaemia:* 0.4mmol/kg Mg<sup>2+</sup> (100mg/kg magnesium sulphate) by slow intravenous injection over 10 minutes every 6-12 hours as necessary
- Route of administration:** Via central line if possible, otherwise via peripheral line.
- Products available:** Magnesium sulphate 50% 10ml ampoules (equivalent to Mg<sup>2+</sup> 2mmol/mL, 5g in 10mL)
- To prepare an infusion:** **Preferred diluent:** Sodium chloride 0.9%  
Alternative diluents: Glucose 5%, glucose 10%
- Draw up 2mL of magnesium sulphate 50% and make up to 10mL with required diluent to give 0.4mmol/mL (100mg/mL).
- Withdraw required amount and infuse at a rate of not more than 0.04mmol/kg/minute (10mg/kg/min)
- How to prescribe:** Prescribe on eMeds using the Protocols function. Find the Protocol by searching "magnesium" or by using: Neonates/neonatal unit → Electrolytes → Intravenous → **Neonatal unit only - Magnesium IV**
- Compatibilities:** Clonidine, gentamicin, heparin, metronidazole, morphine, parenteral nutrition, vancomycin
- Incompatibilities:** Ambisome, dobutamine, salbutamol, sodium bicarbonate
- Notes:** If magnesium needs to be given down the same line as an incompatible infusion or an infusion with no compatibility information, the infusion should be stopped, the line flushed, magnesium given over 10 minutes, the line flushed and infusion restarted. **This applies to all infusions except inotropes and insulin where magnesium should be infused down a separate line.**
- References:** NHS Injectable Medicines Guide V10 Monograph 07/05/2019, BNFc online March 2020. Neonatal Formulary V7 2015. LTHT Paediatric IV Administration Guide.

### Provenance

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