

Medicines Management & Pharmacy Services (MMPS) LTHT Neonatal Unit Administration Guide Calcium Gluconate

Dose:	<p>Hypocalcaemia or hyperkalaemia (prevention of arrhythmias): Calcium gluconate 0.11mmol/kg (0.5mL/kg) over at least 5-10 minutes</p> <p>Hypocalcaemia (maintenance) Calcium gluconate 0.5mmol/kg (2.2mL/kg) by continuous intravenous infusion over 24 hours, titrated to response (usual range 0.5-1mmol/kg/day). Switch to enteral as soon as possible to minimise risk of extravasation injuries.</p>
Route of administration:	Neat calcium gluconate must be given via a central line Concentrations up to 0.045mmol/mL may be given cautiously via a large peripheral vein with close monitoring of access site.
Products available:	Calcium gluconate ampoules 10% (0.225mmol/ml) (n.b. some preparations express concentration as 0.226mmol/ml)
To prepare an infusion:	<p>Preferred diluent: glucose 5% Other diluents: sodium chloride 0.9%, glucose 10%</p> <p>For bolus dose via central line: Give neat, or dilute as instructed.</p> <p>For continuous infusion or bolus via peripheral route: Draw up required volume of calcium gluconate 10%, and dilute to 5 times this volume using chosen diluent, i.e. 1mL of calcium gluconate 10% should be diluted with 4mL of diluent, the diluted infusion is then 5mL.</p>
How to prescribe:	<p>Bolus dose: Prescribe on eMeds using the Protocols function. Find the protocol using: Neonates/Neonatal Unit → Electrolytes → Intravenous → Calcium IV for hypocalcaemia.</p> <p>Maintenance infusion: Prescribe on an LTH Intravenous Infusion prescription sheet. Document the mmol of calcium gluconate, the diluent and the total volume of the infusion on the prescription sheet.</p>
Compatibilities:	Amiodarone (only in glucose 5%), aciclovir, atracurium, benzylpenicillin, caffeine citrate, ceftazidime, dobutamine, dopamine, furosemide, gentamicin, heparin, insulin, metronidazole, midazolam, milrinone, morphine, noradrenaline, parenteral nutrition, phenobarbital, potassium chloride, ranitidine, sodium chloride and glucose maintenance solutions, vancomycin
Incompatibilities:	Amphotericin, co-trimoxazole, flucloxacillin, indomethacin, phenytoin, sodium bicarbonate
Notes:	If there is no compatibility information for specific drugs, do not assume compatibility. For incompatible drugs or those with no compatibility information use a separate line or, for short infusions, flush well between drugs.
References:	BNFc 2019, Neonatal Formulary V7 2015, Medusa (Accessed 18.07.19) Handbook on Injectable Medicines (Accessed 18.07.19)

Provenance

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