

# Calcium Gluconate

**FORM** Ampoule of 10% calcium gluconate injection solution contains 1g of calcium gluconate = 2.2mmol of Ca<sup>2+</sup> in 10ml.

**INDICATION**

1. Treatment of neonatal tetanus or arrhythmias
2. Treatment of hyperkalaemia
3. Treatment of acute hypocalcaemia

**DOSE RANGE**

1. Treatment of neonatal tetanus or arrhythmias
2. Treatment of hyperkalaemia - **USE WITH ECG MONITORING \*\*DISCUSS WITH CONSULTANT BEFORE USE\*\***

AGE	DOSE	FREQUENCY	ROUTE
Birth to 6 months	0.11mmol/kg	SINGLE DOSE May be repeated	Slow Injection over 5-10 min.

3. Treatment of acute hypocalcaemia (Calcium <1.8mmol/L or ionised Calcium <0.7mmol/l) - **USE WITH ECG MONITORING \*\*DISCUSS WITH CONSULTANT BEFORE USE\*\***

AGE	DOSE	FREQUENCY	ROUTE
Birth to 6 months	0.44mmol/kg	SINGLE DOSE	Slow I.V. INFUSION see below

**RECONSTITUTION** Already in solution

**DILUTION**

Calcium Gluconate 10% inj.	10ml
Sodium chloride 0.9% inj.	Up to 50ml total

Gives Calcium Gluconate 0.044mmol in 1ml (2%) solution. Use the required volume.

**Dosage guide (using diluted solution)**

0.11mmol/kg equivalent to 2.5ml/kg  
 0.44mmol/kg equivalent to 10ml/kg

**METHOD OF ADMINISTRATION** IV infusion at a **rate not exceeding 30ml/hr**, of the diluted solution above.

**COMPATIBILITY**

<b>Solution compatibility</b>	Glucose 5%, Glucose 10%, Glucose 20%, Sodium Chloride 0.45%, Sodium Chloride 0.9%
<b>Solution incompatibility</b>	Intralipid. Avoid dilutions into solutions containing bicarbonate, phosphate or sulphate
<b>IV Line compatibility</b>	Aciclovir, adrenaline, aminophylline, atracurium, dobutamine, dopamine, furosemide (saline only), heparin (glucose only), insulin, isoprenaline, midazolam (glucose only), milrinone (glucose only), morphine, noradrenaline (glucose only), potassium chloride, vancomycin (glucose only).
<b>IV Line incompatibility</b>	Calcium salts can form complexes with many drugs, and this may result in a precipitate. Calcium salts are incompatible with oxidising agents, citrates, soluble carbonates, bicarbonates, phosphates, tartrates and sulphates. Physical incompatibility has also been reported with medicines including Amphotericin, Indometacin, Metoclopramide, Sodium Bicarbonate.

# West of Scotland NEONATAL IV Drug Monographs

THIS LIST IS NOT EXHAUSTIVE PLEASE CONTACT PHARMACY FOR FURTHER INFORMATION  
ON COMPATIBILITY WITH ANY MEDICINES NOT INCLUDED

## CAUTIONS, CONTRA-INDICATIONS AND SIDE EFFECTS

- See Summary of Product Characteristics and most recent edition of BNF for Children (links below)

## FURTHER INFORMATION

- Extravasation risk – extravasation may cause tissue irritation and necrosis. Soft tissue calcification due to extravasation of calcium solutions
- Calcium administration may be associated with bradycardias and other cardiac arrhythmias and patients should be monitored accordingly.
- Calcium gluconate 0.11mmol/kg dose may also be given undiluted
- Care should also be taken to correct any associated hypomagnesaemia
- Concomitant use of ceftriaxone and intravenous calcium-containing products is contraindicated in neonates (<28 days of age). Ceftriaxone should not be used in neonates (<28 days of age) if they are receiving (or are expected to receive) calcium-containing intravenous products.

## STORAGE

- Calcium Gluconate Injection may be stored at room temperature and should be protected from light. If a precipitate appears, discard solution.

## PH

5.5 – 7.5.

## LICENSED STATUS

Licensed medicine. Doses used in monograph off label use.

## LINKS

[BNF for Children:](#) / [Electronic Medicines Compendium](#)

## APPLICABLE POLICIES

[West of Scotland Neonatal Guidelines:](#)

Consult local policy if applicable

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Prepared by:	WoS Neo pharm group	Checked by	June Grant
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### **Administer reconstituted solutions immediately.**

**All vials, ampoules and infusion bags are for single use only unless otherwise stated.**

Dose may vary depending on indication, age, renal function, hepatic function, and concomitant medications.  
This monograph should be used in conjunction with the package insert, BNF for Children, and Summary of Product Characteristics. For further advice contact your clinical pharmacist or pharmacy department.