



GUIDELINE

Calcium Gluconate 10% - Administration

Scope (Staff):	All Emergency Department Clinicians
Scope (Area):	Emergency Department

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Calcium Gluconate 10% - Administration

Medication

Calcium gluconate 10% solution = 0.22mmol/ml Ca

Indications

- Treatment of calcium deficiency
- As an adjunct in hyperkalaemia
- As an inotrope (in PICU)

Adverse

- Vasodilation leading to hypotension
- Nausea, vomiting, hot flushes and sweating
- IV and IM can cause local tissue reactions including irritation and necrosis
- Excreted mainly in urine but also found in faeces and saliva, sweat, breast milk, bile and pancreatic juice

Administration

- IM & S/C not recommended
- Not to be given via ETT

- Intravenous
 - **Dose:** 0.5ml/kg of 10% solution (maximum 20 mls)
 - Given via large peripheral vein or CVC only
 - Can be given neat as a SLOW IV push over 3-5 minutes
 - For IV infusion – Calcium Gluconate can be neat or diluted to half strength and given over 1 hour. If continuous infusion, syringe should be used in 24 hours.
 - Can be added to TPN
 - In cardiac arrest can be given over 10-20 secs

Special

- **Serum calcium levels should be carefully monitored**
- ECG should be monitored
- Extravasation should be avoided – give through a CVC when possible
- Care in patients with renal failure

Compatibility

- Glucose 5%, Normal Saline, Hartmann's
- Amikacin, aminophylline, amioderone, aztreonam, benzylpenicillin, cefepime, dexmedetomidine, frusemide, heparin, hydrocortisone, labetalol, lignocaine, linezolid, magnesium sulphate, metaraminol, midazolam, milrinone, noradrenaline, phenobarbitone, piperacillin-tazobactam, potassium chloride, propofol, remifentanyl, tobramycin, vancomycin, verapamil.

Incompatible with:

- Adrenaline, amphotericin B2, ampicillin, cefalotin, ceftriaxone, cephalothin, cephamandole, clindamycin, dexamethasone, sodium phosphate, diazepam, digoxin, dobutamine, flucloxacillin, fluconazole, meropenem, methylprednisolone, metoclopramide, pantoprazole, phenytoin, phosphate salts, prochlorperazine, sodium bicarbonate


Tags

Calcium, electrolytes, hyperkalaemia, inotrope

References

PMH ED Guidelines – Calcium Gluconate 10% – last updated September 2014
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 Drug Manufacturer Product Information
 E/Clinical Pharmacology 2012

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