

Medication: Calcium Chloride	PDN: 6912.03	Last Updated: June 20, 2018	PMD: Andrew Travers*	PDC: Tanya Fraser*	Page 1 of 2
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CALCIUM CHLORIDE

1.0 Classification

- Electrolyte

2.0 Mechanism of Action

- Increases myocardial contractility and ventricular automaticity

3.0 Indications

- Cardiac arrest due to suspected hyperkalemia (DKA, renal failure)
- Suspected hyperkalemia with cardiovascular toxicity (wide QRS, peaked T waves or hemodynamic instability)
- Calcium channel blocker overdose with symptomatic bradycardia or hemodynamic instability
- Respiratory depression after infusion of magnesium sulfate

4.0 Contraindications

- Patients taking digitalis, as it may precipitate digitalis toxicity

5.0 Precautions

- Extravasation of calcium chloride may cause tissue necrosis
- If given too quickly, it may cause bradycardia, a burning sensation, and/or a metallic or chalky taste
- Calcium chloride should not be administered with sodium bicarbonate simultaneously as a precipitate can form which may clog the line

6.0 Route

- May be given IV/IO

7.0 Dosage

Adult

- 1 g over 3 minutes repeat x 1 in 10 minutes if indications still present

Pediatric

- Cardiac arrest: 20 mg/kg (maximum single dose of 1 g) over 3 minutes repeat x 1 in 10 minutes if indications still present
- Non-arrest: 10 mg/kg (maximum single dose of 1 g) over 15 minutes repeat x 1 in 10 minutes if indications still present

8.0 Supplied

- 1 g in 10 mL preloaded syringe OR 1 g in 10 mL vial

9.0 May Be Given By

- ACP/CCP

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10.0 Adverse effects

- Decreased blood pressure
- Bradycardia
- Vomiting
- Syncope
- Arrhythmias
- Cardiac Arrest

11.0 Special notes

- Always flush the line between doses of calcium and bicarbonate to avoid precipitation
- Ensure the line is patent before calcium administration as to avoid extravasation
- Pregnancy category C [if the patient will benefit from a Category C drug, it is generally used]

12.0 References

- Cardiac Arrest Adult Clinical Practice Guideline
- Toxicological Emergencies Clinical Practice Guideline
- Compendium of Pharmaceuticals and Specialties (CPS)

*Electronically Signed

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