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
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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