Drug Name: **Calcium Chloride**
Trade Name: **Calcium Chloride, Calcium, CaCl2**

Class:
- Electrolyte replacement

**Mechanism of Action:**
- Increase the force of cardiac contractility, by initiating myofibril shortening
- In normally functioning hearts calcium will produce positive inotropic and vasoconstrictive effects and increase systemic arterial blood pressure
- In abnormally functioning hearts calcium will produce positive inotropic effects may increase or decrease systemic vascular resistance
- It also appears to increase ventricular automaticity

**Indications:**
- Hyperkalemia
- Hypermagnesemia (Antidote for respiratory depression due to MgSO₄ administration)
- Hypocalcemia (Ca Blocker Overdose)

**Contraindications:**
- Hypercalcemia
- Digitalis toxicity
- VF during resuscitation

**Precautions:**
- May induce digitalis toxicity in patients receiving digoxin
- Can cause tissue necrosis & sloughing
- Pregnancy (C)
- Respiratory disease
- Cor pulmonale
- Respiratory Failure

**Dosage:**

**Adults:**
- Hyperkalemia, Asystole/PEA with suspected hyperkalemia, and Calcium Channel BLOCKER Overdose--500-1000 mg slow IV push

**Pediatrics:**
- 20 mg/kg infused slowly over 10 minutes (no faster than 100 mg/min)
  Max--1 g / dose

**Onset:**
- 5-15 minutes

**Duration:**
- Dose dependent (effects may persist for 4 hrs. after IV administration)
DRUG: CALCIUM CHLORIDE

Side Effects:
- Metallic taste
- Burning
- “Heat waves”
- Bradycardia (may cause asystole)
- Hypotension
- Cardiac arrhythmias
- Increased digitalis toxicity
- Extravasation with necrosis and sloughing
- Vasospasm in coronary and cerebral arteries.
- N/V

Interactions:
- Precipitates with sodium bicarbonate, epinephrine and potassium phosphate
- When given to a patient on Digoxin, can cause elevated Digoxin levels and possibly digitalis toxicity
- May antagonize the effects of Verapamil

PEARLS:
- Standard medical control and deviation guidelines apply unless otherwise stated.
- To prevent tissue necrosis, make sure to administer the drug through an IV that is patent and flowing well.
- Flush well between administration of calcium & sodium bicarb to avoid precipitate.
- May sometimes be requested by medical control to be co-administered with Cardizem to offset hypotension in hypotensive patients.