

Initial Date: 07/19/2023

Revised Date:

Section: 9-16R

## **Calcium Chloride**

**Pharmacological Category:** Calcium Salt; Electrolyte Supplement, Parenteral

**Routes:** IV/IO

### **Indications:**

1. Cardiac arrest in the renal failure patient
2. Calcium channel blocker toxicity
3. Crush Injury with suspected hyperkalemia

### **Precautions:**

1. Use with caution in patients on digoxin; hypercalcemia may precipitate cardiac arrhythmias.
2. Calcium chloride is not compatible with sodium bicarbonate, flush IV line between medications.

### **Expected effects:**

1. Increased force of myocardial contraction
2. Rise in arterial pressure

**Note:** If given in a line that infiltrated, calcium chloride administration may cause skin sloughing.

### **Dosing: GENERAL CRUSH INJURY**

Indication: Suspected hyperkalemia (peaked T waves, widened QRS, hypotension)

#### Adults administer:

1. Calcium chloride 1 gm slow IVP over 5 minutes

#### Pediatrics administer:

1. According to MI MEDIC cards
2. If MI MEDIC Cards are not available administer:
  - a. Calcium chloride 20 mg/kg slow IVP over 5 minutes. Max dose 1 gm

### **Dosing: POISONING/OVERDOSE/ENVIRONMENTAL EXPOSURE**

Indication: Symptomatic calcium channel blocker overdose

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Adults administer:

1. Calcium chloride 1 gm IV

Pediatrics administer:

1. According to MI MEDIC Cards
2. If MI MEDIC Cards are not available administer:
  - a. Calcium chloride 20 mg/kg IV. Max dose 1 gm.

**Dosing: GENERAL CARDIAC ARREST (Adult)**

Indication: known or highly suspected hyperkalemia (e.g., dialysis patient, EKG changes)

Adults administer:

1. Calcium chloride (10%) 1 gm/10 mL IV/IO

**Dosing: PEDIATRIC CARDIAC ARREST**

Indication: hyperkalemia (renal failure)

Pediatrics administer:

1. According to MI MEDIC cards
2. If MI MEDIC cards are not available administer:
  - a. Calcium chloride (10%) 20 mg/kg (0.2 mL/kg). Max single dose 1 gm

**Used in the Following Protocols**

General Crush Injury (Section 2 Trauma and Environmental)

Poisoning/Overdose/Environmental Exposure (Section 2 Trauma and Environmental)

General Cardiac Arrest (Section 5 Adult Cardiac)

Pediatric Cardiac Arrest – General (Section 6 Pediatric Cardiac)