Initial Date: 07/19/2023
Revised Date:

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)