

CLASS A: Hyperkalemia, Premedication for Antidysrhythmic Use

**CLASS B: Calcium Channel Blocker OD (Except Cardiac Arrest),
Hydrogen Fluoride exposure**

**PROTOCOL(S) USED IN: Cardiac Arrest, Cardiac Dysrhythmia Tachycardia,
Hyperkalemia, Poisoning & Overdoses**

PHARMACOLOGY AND ACTIONS:

Increases the force of myocardial contraction by initiation of myofibril shortening. The positive inotropic effects and vasoconstricting effects produce a rise in systemic arterial pressure.

INDICATIONS:

1. Hyperkalemia
2. Suspected Calcium Channel Blocker OD
3. Hypotension prior to antidysrhythmic use
4. Hydrogen Fluoride exposure

CONTRAINDICATIONS:

Hypercalcemia and hypercalciuria (hyperthyroidism, Vitamin D overdose, bone metastases)

Patients on Digoxin

When administered in the same IV/IO as Sodium Bicarbonate

SIDE EFFECTS AND NOTES:

- A. Extravasation of Calcium salts will cause necrosis of tissue. The IV should be secured and free blood return into the syringe should be checked 2-3 times during administration. If extravasation does occur, immediately stop administration.
- B. Administer slowly (no faster than 200 mg/min) and stop if patient complains of distress. Inject using a small needle into a large vein.
- C. Rapid injection of Calcium may cause vasodilatation, decreased blood pressure, bradycardia, cardiac arrhythmias, syncope and cardiac arrest. May produce coronary and cerebral artery spasms.
- D. One vial of 10 ml Calcium Gluconate contains 1 g of calcium gluconate salt (= 93 mg elemental calcium or 4.6 mEq calcium or 2.3 mmol calcium)

ADULT DOSING:

Premedication to Diltiazem (BP <90 mmHg): 1 g slow IV/IO over 5-10 minutes

Hyperkalemia: 1 g slow IV/IO over 5-10 minutes

Calcium Blocker OD: Contact OLMC - 1 g slow IV/IO over 5-10 minutes

Hydrogen Fluoride Exposure: Contact OLMC - See Exposure Protocol

PEDIATRIC DOSING:

Hyperkalemia, Calcium Channel Blocker Overdose:

50 mg/kg slow IV/IO over 5 – 10 minutes. Max dose 1 g - **Contact OLMC for OD**