Calcium Chloride

Calcium Chloride is an endogenous electrolyte that increases the force of myocardial contraction, increases the excitability of muscle fibers and decreases the heart rate. Calcium counteracts the effects of calcium channel blockers.

Indications and Administration

1. Calcium channel blocker overdose with toxic EKG changes.
2. Severe hyperkalemia with toxic EKG changes. (see hyperkalemia)
3. Cardiac arrest in the pt with known renal failure. (see hyperkalemia)
4. Dosage:
   a. **Adult -** 8-16 mg/kg IV/IO or 5 -10 ml of the 10% solution over 2-5 mins. May repeat in 10 min.
   b. **Pediatric -** 20 mg/kg IV/IO over 5 min. May repeat in 10 min.

Notes

1. Do not add to IV/IO in rapid succession with sodium bicarbonate. Must flush line.
2. Local infiltration will cause tissue necrosis. Make sure IV/IO is patent.
3. Patients who take digoxin and may be dig toxic have increased risk that calcium will cause cardiac irritability, ventricular fibrillation, or asystole.
4. Excessively rapid administration of calcium can produce bradycardia or arrest. Be careful with this drug.