## CALCIUM GLUCONATE

<table>
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<th>CLASSIFICATION</th>
<th>Minerals and electrolytes</th>
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| TRADE NAME(S)        | Calcium Gluconate 10% (for IV use)  
                              | Calcium Gluconate gel 2.5% (for topical use) |
| DESIRED EFFECTS      | Lower potassium levels; pain relief and neutralizing fluoride ion |
| MECHANISM OF ACTION  | Calcium is the primary component of skeletal tissue. Bone serves as a calcium depot and as a reservoir for electrolytes and buffers. |

### INDICATIONS
- Suspected hyperkalemia in adult PEA/Asystole
- Antidote for calcium channel blocker overdose and magnesium sulfate toxicity
- Gel is used for hydrofluoric acid burns
- Suspected hyperkalemia with adult crush injury or peaked T-waves on EKG

### CONTRAINDICATIONS
- Should not be given to patients with digitalis toxicity
- Should be used with caution in patients with dehydration

### ADVERSE REACTIONS
- When given too rapidly or to someone on digitalis, can cause sudden death from ventricular fibrillation
- May cause mild to severe IV site irritation

### SPECIAL CONSIDERATIONS
Must either use a different IV line or flush line with copious normal saline if being given with sodium bicarbonate.

When used on hydrofluoric acid burns, relief of pain is the only indication of treatment efficacy. Therefore, use of analgesic agents is not recommended.

### DOSING REGIMEN
- Suspected hyperkalemia in adult PEA/asystole or adult crush injury, or evidence of EKG changes (Ex. peaked T-waves)
  - Calcium gluconate 10% 15-30 ml IV/IO over 2-5 minutes
- KNOWN calcium channel blocker overdose - administer 3 grams IV/IO may repeat dose in 10 minutes if no effect.
- Hydrofluoric acid burns apply calcium gluconate gel 2.5% every 15 minutes to burned area and massage continuously until pain disappears.

### PROTOCOL LOCATION
- Cardiac Arrest
- Renal Emergencies
- Toxic Exposure / Poisoning / OD
- Trauma Emergencies