Classification
   Electrolyte

Prehospital Indications
   Cardiac Arrest – Non-Traumatic: suspected hyperkalemia, patients with renal failure
   Cardiac Dysrhythmia: suspected hyperkalemia causing bradycardia
   Overdose / Poisoning / Ingestion: calcium channel blocker toxicity
   Traumatic Injury: suspected hyperkalemia in the setting of crush injury or potential for development of
   crush syndrome (administer prior to release of crushed tissue)

Other Common Indications
   Acute hypocalcemia with or without tetany
   Topically for hydrofluoric acid burns
   Calcium channel blocker overdose

Adult Dose
   Cardiac Arrest
      1gm (10mL) IVP/IO
   Cardiac Dysrhythmia/Crush - Suspected hyperkalemia
      1gm (10mL) slow IV/IO push, may repeat x1 for persistent symptoms / ECG abnormalities
   Overdose / Poisoning / Ingestion - Suspected Calcium Channel Blocker Overdose
      1g (10mL) IV slow push over 60 seconds

Pediatric Dose
   Crush - Suspected hyperkalemia
      20mg/kg (100mg/mL) slow IV/IO push, dose per MCG 1309, repeat x1 for persistent ECG
      abnormalities
   Overdose / Poisoning / Ingestion - Suspected Calcium Channel Blocker Overdose
      20mg/kg (100mg/mL) IV slow push over 60 seconds, dose per MCG 1309

Mechanism of Action
   Essential regulator for the excitation threshold of nerves and muscles; causes significant increase in
   myocardial contractility and ventricular automaticity. Antidote for some electrolyte imbalances and calcium
   channel blocker toxicity.

Pharmacokinetics
   Onset and peaks immediately, duration varies

Contraindications
   Hypercalcemia
   Ventricular fibrillation

Interactions
   Inactivates or minimizes the effects of catecholamines if not flushed properly
   Can cause cardiac standstill in patients taking Digoxin

Adverse Effects
   Cardiac arrest
   Hypotension or hypertension
   Pain and burning at injection site
   Tingling sensations

Prehospital Considerations
   • Precipitates to form calcium carbonate (chalk) when used with sodium bicarbonate. Administer calcium
     chloride and sodium bicarbonate in separate IV/ IO or thoroughly flush in between administrations
     using at least 10mL of normal saline
   • Confirm IV is patent prior to administration as extravasation causes severe tissue necrosis