



REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME

calcium chloride



Effective Date: Nov19-2014	CLASSIFICATION Electrolyte	OTHER NAMES CaCl	PAGE 1 of 2
Revised Date:			

ADMINISTRATION POLICY:

- IV bolus:** - Restricted to nurses in ED/ICU/OR
- IV infusion:** - Restricted to nurses in ED/ICU/OR
- IO:** - Restricted to nurses in ED/ICU/OR
- IM:** - Not recommended
- Subcut:** - Not recommended

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 100 mg/mL – 10 mL vial
100 mg Calcium Chloride = 27 mg elemental calcium = 0.7 mmol calcium

- IV bolus:** Resuscitation: administer undiluted or preferably diluted 1:1 with sterile water
Other indications: dilute with equal volume of sterile water and administer over 1 to 3 minutes. Do not exceed 2 mL per minute. Flush catheter of IV tubing WELL after each dose.
- Intermittent:** Infuse over 15 to 30 minutes. Usual dilution 10 mg per mL
- IV infusion:** Usual dilution 10 mg per mL

DOSAGE:

Titrate doses to serum calcium concentration. Doses expressed as calcium chloride, NOT elemental calcium.

- Resuscitation:** IV,IO: 10 to 30 mg per kg per dose every 10 minutes as required
- Hypocalcemic Tetany:** IV, IO: 0.25 to 0.5 mmol (10 to 20 mg) per kg per dose
- Hypocalcemia:** IV infusion: 1 to 4 mmol (40 to 160 mg) per kg per 24 hours by continuous infusion or divided every 4 to 6 hours. Start at lower end of dosage range and increase dose cautiously to avoid adverse effects.
Maximum 25 mmol (1 gram elemental calcium) per dose OR
100 mmol (4 grams elemental calcium) per 24 hours
- Hypotension, Cardiogenic Shock:** IVbolus: 10 to 20 mg per kg per dose every 10 minutes x 2 doses
Infusion: 1.5 mg per kg per hour
- Maintenance:** IV infusion: equal or less than 19 kg: 0.5 to 2 mmol per kg per 24 hours
20 to 29 kg: 0.75 mmol per kg per 24 hours
Equal or greater than 30 kg 0.5 mmol per kg per 24 hours
Maximum 15 mmol per 24 hours
- Hyperkalemia:** IV bolus, Intermittent: 10 to 30 mg (0.1 to 0.3 mL) per kg per dose



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Maximum concentration :	Resuscitation:	100 mg/mL (0.7 mmol/mL)
	IV bolus, Intermittent:	50 mg/mL (0.35 mmol/mL)
	Infusion:	10 grams/litre (70 mmol/litre)
Usual concentration:	Infusion:	7 grams/litre (50 mmol/litre)
Maximum rate:	Infusion:	0.6 mmol/kg/hour (24 mg/kg/hour)
STABILITY/COMPATIBILITY:		
Stability of final admixture:	24 hours at room temperature	
Compatibility:	Compatible with normal saline, dextrose concentrations between D5W to D50W, dextrose-saline combinations	
<i>Refer to King's Compatibility Chart for intravenous admixtures.</i>		

PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:	
CV: bradycardia, dysrhythmias, hypotension and cardiac arrest	
Local: tissue necrosis, phlebitis	
Other: too rapid administration – calcium taste and tingling sensation in the extremities; flushing, nausea, vomiting	
REQUIRED MONITORING	
<ul style="list-style-type: none"> • Serum calcium at least once daily during initial 3 days of therapy • continuous cardiac monitoring mandatory during and for 30 minutes following IV bolus administration 	
CAUTION	
<ul style="list-style-type: none"> • patients with renal impairment or the concurrent administration of digoxin 	

ADDITIONAL NOTES AND NURSING CONSIDERATIONS:
