

## Who can administer

May be administered by registered competent doctor or nurse/midwife

## Important information

- Calcium chloride is **second-line** when the gluconate salt is unavailable <sup>(ref 1)</sup>
- Calcium chloride minijets MAY BE USED in the resus situation
- **Very irritant** solution- give slowly, and stop if extravasation occurs
- Calcium chloride should **NEVER** be given by IM or subcutaneous routes, as **severe necrosis and sloughing may occur**
- Do **NOT** administer through same line as solutions containing **phosphate, bicarbonate or sulphates**
- Do **NOT CONFUSE WITH CALCIUM GLUCONATE**
- There is a risk of **arrhythmias** if the drug is given too quickly. Also, nausea, vomiting, hot flushes, sweating, hypotension, tingling, chalky taste and vasomotor collapse may occur if the drug is given too quickly <sup>(ref 2)</sup>

## Available preparations

Drug	Presentation	Concentration (mmol)	Concentration (%= g/100ml)	Content in grams
Calcium chloride	minijet	6.8 mmol in 10ml	10%	1g in 10ml
	ampoule	5mmol in 5ml	14.7%	0.735g in 5ml
	ampoule	10mmol in 10ml	14.7%	1.47g in 10ml

## Reconstitution

Already in solution

**Draw up using a 5 micron filter needle (ampoules)**

## Infusion fluids

Sodium chloride 0.9% <sup>(ref 2)</sup>

## Methods of intravenous administration

### **Slow intravenous injection (in resus situations)**

- **Minijet:** as per resuscitation guidelines
- **Ampoules:** administer slowly over at least 3 minutes <sup>(ref 2)</sup>
- See under 'Important information' re rate of administration

### **Intermittent intravenous infusion(administer using an electronically controlled infusion pump)**

- Dilute with at least four times its own volume with infusion fluid <sup>(ref 2)</sup>
- Administer over one hour via a large vein <sup>(ref 1)</sup>

- Rate may be increased if necessary to a maximum rate of 1mmol per minute<sup>(ref 2)</sup>

## Dose in adults

### Emergency situations

- As per resus guidelines

### Hypocalcaemia

- Calcium gluconate salt preferred - see separate monograph
- The dose is determined by the requirements of the patient
- Suggest initial dose of Calcium chloride 10mmol (10ml of **ampoule** solution)
- Repeat every day if needed

### Hypocalcaemic tetany/severe hypocalcaemia

- See calcium gluconate monograph

## Monitoring

- Monitor serum calcium, blood pressure
- The infusion site must be monitored to ensure **extravasation injury** has not occurred
- There is a risk of arrhythmias if the drug is given too quickly<sup>(ref 2)</sup>

## Further information

- Conversion: 1mmol is the same as 2mEq
- Calcium chloride 1g = 270mg elemental calcium = 13.6mEq = 6.8mmol<sup>(ref 3)</sup>

## Storage

Store at room temperature

## References

SPC Minijet May 2019

1. Uptodate- accessed online 09/05/2023
2. Injectable medicines administration Medusa downloaded 29/03/2023
- 3: Druginformation.com Conversion calculator

## Therapeutic classification

Electrolyte