

Calcium carbonate (oral)

1,250 mg (equiv. 500 mg elemental calcium)

chewable tablets

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Note:

This guideline provides advice of a general nature. This statewide guideline has been prepared to promote and facilitate standardisation and consistency of practice, using a multidisciplinary approach. The guideline is based on a review of published evidence and expert opinion.

Information in this statewide guideline is current at the time of publication.

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Health practitioners in the South Australian public health sector are expected to review specific details of each patient and professionally assess the applicability of the relevant guideline to that clinical situation.

If for good clinical reasons, a decision is made to depart from the guideline, the responsible clinician must document in the patient's medical record, the decision made, by whom, and detailed reasons for the departure from the guideline.

This statewide guideline does not address all the elements of clinical practice and assumes that the individual clinicians are responsible for discussing care with consumers in an environment that is culturally appropriate and which enables respectful confidential discussion. This includes:

- The use of interpreter services where necessary,
- Advising consumers of their choice and ensuring informed consent is obtained,
- Providing care within scope of practice, meeting all legislative requirements and maintaining standards of professional conduct, and
- Documenting all care in accordance with mandatory and local requirements

For information on intravenous calcium, see calcium gluconate

Generic Ingredients

Calcium carbonate tablets (Cal Sup[®], Cal-500[®]) 1,250 mg contain 500 mg of elemental calcium (equivalent to 12.5mmol)

Dose and Indications

Maintenance treatment of hypocalcaemia

Oral

Doses should be expressed in mmol of elemental calcium.

0.5 mmol/kg/day of elemental calcium, up to 2 mmol/kg/day. Give in 2 to 4 divided doses.

Adjust according to calcium and phosphate levels.

Phosphate binding in renal failure

Oral

6.25 mmol (250 mg) elemental calcium into total daily feeds

Increase to a maximum daily dose of 12.5 mmol (500 mg) elemental calcium into feeds if inadequate response to treatment.

Nephrology consultation is required when commencing.



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Preparation and Administration

Oral

Disperse one tablet of calcium carbonate (12.5 mmol) in 12.5 mL of sterile water to get a mixture of 1 mmol/mL.

Dose	0.25 mmol	0.5 mmol	0.75 mmol	1 mmol	1.25 mmol
Volume	0.25 mL	0.5 mL	0.75 mL	1 mL	1.25 mL

NB – Calcium carbonate is not soluble in water; however the chewable tablets can be dispersed in water. The Cal Sup® brand dispersed readily in water, however the Cal-500® requires crushing to a fine powder prior to dispersing in water. Shake well to disperse immediately before measuring a dose. Discard remaining solution after use.

Give dose with feeds.

Separate dose of calcium and the following medications by at least 2 hours – iron, levothyroxine, phenytoin, and phosphate.

Adverse Effects

Common

Gastric irritation, diarrhoea

Infrequent

Hypercalcemia, alkalosis, hypophosphatemia

Rare

Renal calculi, mild-alkali syndrome

Monitoring

- > Serum calcium and phosphate levels

Practice Points

- > Do not mix with other drugs as precipitation may occur.
- > Clinical effect may be reduced by drugs that increase gastric pH (including sodium bicarbonate).
- > Hypercalcaemia can occur following administration, especially if prolonged. Monitoring of calcium levels following commencement of therapy is recommended.
- > Hypocalcaemia can commonly occur in conjunction with hyperphosphataemia and is unlikely to respond to treatment until the hyperphosphataemia is controlled.



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Document Ownership & History

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Approval Date	Version	Who approved New/Revised Version	Reason for Change
18/10/2023	V2.1	Domain Custodian, Clinical Governance, Safety and Quality	Administration change
15/11/2018	V2	SA Health Safety and Quality Strategic Governance Committee	Formally reviewed in line with 5 year scheduled timeline for review.
9/3/2018	V1.1	SA Health Safety and Quality Strategic Governance Committee	Review date extended to 5 years following risk assessment. New template.
13/8/2013	V1	SA Health Safety and Quality Strategic Governance Committee	Original SA Health Safety and Quality Strategic Governance Committee approved version

