Caldical 500

Calcium 500 mg

Composition:
Caldical 500 Tablet: Each tablet contains Calcium Carbonate USP 1250 mg equivalent to elemental Calcium 500 mg.

Pharmacology:
Calcium carbonate reacts with gastric acid to produce a salt and water. For calcium carbonate the postulated chemical reaction is CaC03 + 2HCl = CaCl2 + H20 + C02 Two grams of calcium carbonate will readily bring 100 ml of hydrochloric acid to a pH above 6. The increase in gastric pH diminishes the activity of pepsin in the gastric secretion. Up to 30% of the oral calcium load may be absorbed.

Indication:
Caldical 500 (Calcium Carbonate) is used for the treatment or prevention of calcium depletion in patients in whom dietary measures are inadequate. Conditions that may be associated with calcium deficiency include hypoparathyroidism, achlorhydria, chronic diarrhea, vitamin D deficiency, steatorrhea, sprue, pregnancy and lactation, menopause, pancreatitis, renal failure, alkalosis, and hyperphosphataemia. Calcium Carbonate is being used increasingly often to treat hyperphosphataemia in chronic renal failure as well as those on continuous ambulatory peritoneal dialysis (CAPD) and haemodialysis. Many patients are unable to tolerate sufficient doses for complete phosphate control and require additional measures such as stringent dietary phosphate restriction or relatively small doses of aluminium hydroxide. Calcium Carbonate containing preparations can provide short-term relief of dyspeptic systems but are no longer recommended for long-term treatment of peptic ulceration.

Dosage and Administration:
Calcium Carbonate is always used orally and when used as an antacid the recommended doses for adults are equivalent to 540-2000 mg Calcium Carbonate per day, doses for children being half of those for adults. As a dietary supplement, such as for the prevention of osteoporosis, 1250-3750 mg Calcium Carbonate (500-1500 mg calcium) daily is recommended in general, but again this will need to be tailored to the individual patient depending on any specific disease such as Calcium deficiency, malabsorption or parathyroid function. In pregnancy and lactation the recommended daily dose of calcium is 1200-1500 mg. In chronic renal failure the doses used vary from 2.5 - 9.0 gm Calcium Carbonate per day and need to be adjusted according to the individual patient. To maximize effective phosphate binding in this context the Calcium Carbonate should be given with meals.

Side Effect:
Orally administered Calcium Carbonate may be irritating to the GI tract. It may also cause constipation. Hypercalcaemia is rarely produced by administration of calcium alone, but may occur when large doses are given to patients with chronic renal failure.

Contraindication:
1. Hypercalcaemia and hyperparathyroidism
2. Hypercalciuria and nephrolithiasis
3. Zollinger-Ellison syndrome
4. Concomitant digoxin therapy (requires careful monitoring of serum calcium level)

Precaution:
When hypercalcaemia occurs, discontinuation of the drug is usually sufficient to return serum calcium concentrations to normal. Calcium salts should be used cautiously in patients with sarcoidosis, renal or cardiac disease, and in patients receiving cardiac glycosides.

Use in Pregnancy and Lactation:
Calcium containing drugs have been widely used in pregnancy by way of oral calcium supplementation or antacid therapy. Calcium Carbonate can be used in lactating women too.

Use in children:
Calcium carbonate has been extensively studied in children and infants with chronic renal failure and is both safe and effective.

Use in elderly:
In case of elderly patients with renal failure when calcium carbonate is taken constipation may be troublesome one for this group. For this reason, monitoring of serum calcium and phosphate is of course indicated for elderly patients.

Drug Interaction:
Calcium Carbonate may enhance the cardiac effects of digoxin and other cardiac glycosides, if systemic hypercalcaemia occurs. Calcium Carbonate may interfere with the absorption of concomitantly administered tetracycline preparations and in chronic renal failure modification of vitamin D therapy may be required to avoid hypercalcaemia when Calcium Carbonate is used as the primary phosphate binder.

Storage:
Store in a cool & dry place, protected from light.

Packaging:
Caldical 500 Tablet: Each box contains 5x10 tablets in blister pack.

Manufactured by

ZISKA PHARMA

Ziska Pharmaceuticals Ltd.
Gazipur, Bangladesh