

COMPOSITION:

Bioalfa Tablets
Each film coated tablet contains: Alfacalcidol BP ... 0.25mcg, 0.5mcg & 1mcg. [NQ's Specs.]

**Bioalfa Drops** Each ml contain: Alfacalcidol BP [NQ's Specs.]

## **DESCRIPTION:**

**Bioalfa** tablet is an active form of vitamin D<sub>3</sub>. It is an agent for the improvement of calcium metabolism and promotion of bone formation. Alfacalcidol is directly converted into its active form  $1\alpha$ , 25 (OH)<sub>2</sub> D<sub>3</sub> in liver by 25 hydroxylase and acts on intestine, bone, kidney and parathyroid gland. As compared to vitamin D, main advantage of **Bioalfa** (Alfacalcidol) is rapid onset and reversal of action which allows an accurate dose titration and decreases the risk of prolonged hypercalcemia.

#### PHARMACOKINETICS:

**Bioalfa** (Alfacalcidol) is absorbed through small intestine and rapidly metabolized into  $1\alpha$ , 25 (OH)<sub>2</sub> -D<sub>3</sub> in liver. The peak serum level is observed in 8-24 hours after oral administration and its half life is 2-4 days in normal

#### INDICATIONS:

Bioalfa is indicated in all conditions where there is a disturbance of calcium metabolism due to impaired  $1\alpha$ -hydroxylation of vitamin D3 such as when there is reduced renal function.

The main indications are:
• Uremic bone disease.

- Hyperparathyroidism (with bone disease).Hypoparathyroidism.
- Post-menopausal, senile and steroid-induced osteoporosis.
  Nutritional and malabsorptive rickets and osteomalacia.

- Pseudo-deficiency (vitamin D-dependent) rickets.
  Hypophosphatemic vitamin D resistant rickets and osteomalacia.
- Prophylactic and therapeutic use in neonatal hypocalcemia.

DOSAGE: TABLETS AND DROPS:

For all indications except osteoporosis: Adults: 1mcg/day Elderly patients: 0.5mcg/day Children under 20Kg: 0.05mcg/day

Children 20Kg and over except in renal osteodystrophy: 1mcg/day The dose of Bioalfa(Alfacalcidol) should be adjusted thereafter to avoid hypercalcemia. Plasma levels should initially be measured at weekly intervals. The daily dose of **Bioalfa** (Alfacalcidol) may be increased by increments of 0.5mcg. When the dose is stabilised, measurements may be taken every 2- 4 weeks. Most adults respond to doses of 1-3mcg/day. When there is biochemical or radiographic evidence of bone healing (and in hypoparathyroid patients when normal plasma calcium levels have been

In hypoparathyroid patients when normal plasma calcium levels have been attained) the dose generally decreases.

Maintenance dose: The dose required for maintenance are generally in the range of 0.25 to 1mcg/day. Should hypercalcemia occur, Bioalfa (Alfacalcidol) should be stopped until plasma calcium returns to normal (usually about a week) then restarted at one half of the previous dose.

Osteoporosis: The usual dose of Bioalfa (Alfacalcidol) is 0.5mcg/day in adults. The recommended maintenance dose is 0.5-1mcg/day which should not be exceeded. The general oral dose for children with osteoporosis

ranges 0.01-0.03mcg/kg once a day. **Renal Bone Disease (Renal Osteodystrophy):** The dose for children 20kg and over with renal osteodystrophy is 0.04-0.08mcg/kg/day.

Children seem to need relatively higher dose than adults and may even need the adult dose.

Hypoparathyroidism/Hyperparathyroidism: For adults 1-4mcg of Bioalfa (Álfacalcidol) is given orálly once a day. Severe hypocalcemia is corrected more rapidly with higher doses of **Bioalfa** (Alfacalcidol) e.g. 3-5mcg, together with calcium supplements. Bioalfa (Alfacalcidol) can be given for 2-3 weeks as preoperative treatment for primary or tertiary hyperparathyroidism surgery.

## **INSTRUCTIONS FOR USAGE OF DROPS:**

Half-drop doses should be rounded up to the next whole number of drops. Plasma levels should initially be measured at weekly intervals. The daily dose of Bioalfa may be increased by increments of 0.25-0.5mcg. When the dose is stabilised, measurements may be taken every 2-4 weeks.

#### CONTRA-INDICATIONS:

Hypercalcemia. Hypersensitivity to any of its constituents.

#### ADVERSE EFFECTS:

Adverse effects are uncommon with Bioalfa (Alfacalcidol). The adverse effects include hypercalcemia, nephrocalcinosis, eczema, itching, anorexia, nausea, vomiting, epigastric distress and elevation of GPT, GOT, γ-GTP, BUN & serum creatinine levels.

#### **GENERAL PRECAUTIONS:**

To avoid over dosage, the dose should be adjusted to keep the serum calcium level within normal range by periodical monitoring. If hypercalcemia occurs, treatment with **Bioalfa** should be stopped immediately until serum calcium level returns to normal (in about one week). Then the treatment

should be reinitiated at a lower dose.
Serum phosphate should be monitored regularly, especially in the early stages of treatment. Caution in patients under treatment with cardioactive glycosides or digitalis.

## DRUG INTERACTIONS:

Careful attention should be given to concomitant use of: Magnesium containing preparations (hypermagnesemia may occur) and Digitalis

preparations.

Patients taking barbiturates or anticonvulsants may require larger doses of Bioalfa due to the induction of hepatic detoxification enzymes.

# USE DURING PREGNANCY AND LACTATION:

**Bioalfa** should only be used in pregnancy and during lactation if considered essential by the physician.

## INSTRUCTIONS:

Store below 30°C. Protect from heat, light and moisture. Keep out of the reach of children.

# PRESENTATION:

Bioalfa Tablets 0.25mcg, 0.5mcg, 1mcg are available in the blister pack

Bioalfa Drops are available in 20ml pack.

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