Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Fultium-D3 20000 IU capsules

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each capsule contains:
20 000 IU Cholecalciferol (equivalent to 500 micrograms vitamin D^3)

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Capsule, soft

Yellow coloured translucent soft gelatin capsule, 10.6 mm x 6.2 mm

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

Initial treatment of symptomatic vitamin D deficiency in adults.

4.2 Posology and method of administration

Recommended dose: One capsule (20 000 IU) weekly.
After first month, lower doses may be considered, dependent upon desirable serum levels of 25-hydroxycolecalciferol (25(OH)D), the severity of the disease and the patient´s response to treatment.

Alternatively, national posology recommendations in treatment of vitamin D deficiency can be followed.

Dosage in hepatic impairment
No dose adjustment is required.

Dosage in renal impairment
Fultium-D_3 should not be used in patients with severe renal impairment (see section 4.3).

Paediatric population
Fultium-D_3 is not recommended.

Method of administration

This medicine is taken orally.
The capsule should be swallowed whole with water, preferably with the main meal of the day.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1.
Hypervitaminosis D
Nephrolithiasis
Diseases or conditions resulting in hypercalcaemia and/or hypercalciuria
Severe renal impairment

4.4 Special warnings and precautions for use

Vitamin D should be used with caution in patients with impairment of renal function and the effect on calcium and phosphate levels should be monitored. The risk of soft tissue calcification should be taken into account. In patients with severe renal insufficiency, vitamin D in the form of cholecalciferol is not metabolised normally and other forms of vitamin D should be used (see section 4.3).

Caution is required in patients receiving treatment for cardiovascular disease (see section 4.5 – cardiac glycosides including digitalis).

Vitamin D^3 should be prescribed with caution to patients suffering from sarcoidosis because of the risk of increased metabolism of vitamin D to its active form. These patients should be monitored with regard to the calcium content in serum and urine.

During long-term treatment with an equivalent daily dose exceeding 1,000 IU vitamin D the serum calcium values and renal function must be monitored, especially in elderly patients. In case of hypercalciuria (exceeding 300 mg (7.5 mmol)/24hours) or signs of impaired renal function, the dose should be reduced or the treatment discontinued.

The content of vitamin D in Fultium-D_3should be considered when prescribing other medicinal products containing vitamin D. Additional doses of vitamin D should be taken under close medical supervision. In such cases it is necessary to monitor serum calcium levels and urinary calcium excretion frequently.

Paediatric population

Fultium-$D_3$is not recommended in children and adolescents under 18 years of age. Capsules are not a suitable dose form for children under 12 years, due to the risk of choking.

4.5 Interaction with other medicinal products and other forms of interactions

Concomitant treatment with phenytoin or barbiturates can decrease the effect of vitamin D because of metabolic activation. Concomitant use of glucocorticoids can decrease the effect of vitamin D.

The effects of digitalis and other cardiac glycosides may be accentuated with the oral administration of calcium combined with vitamin D. Strict medical supervision is needed and, if necessary monitoring of ECG and calcium.

Simultaneous treatment with ion exchange resins such as cholestyramine or laxatives such as paraffin oil may reduce the gastrointestinal absorption of vitamin D.

The cytotoxic agent actinomycin and imidazole antifungal agents interfere with vitamin D activity by inhibiting the conversion of 25-hydroxyvitamin D to 1,25-dihydroxyvitamin D by the kidney enzyme, 25-hydroxyvitamin D-1-hydroxylase.

Ketoconazole may inhibit both synthetic and catabolic enzymes of vitamin D. Reductions in serum endogenous vitamin D concentrations have been observed following the administration of 300 mg/day to 1,200 mg/day ketoconazole for a week to healthy men. However, in vivo drug interaction studies of ketoconazole with vitamin D have not been investigated.

4.6 Fertility, pregnancy and lactation

In pregnancy and lactation the high strength formulation is not recommended and a low strength formulation should be used.

Pregnancy

Vitamin D deficiency is harmful for mother and child. High doses of vitamin D have been shown to have teratogenic effects in animal experiments (see section 5.3). Overdose of vitamin D must be avoided during pregnancy, as prolonged hypercalcaemia can lead to physical and mental retardation, supravalvular aortic stenosis and retinopathy of the child.

Where there is a vitamin D deficiency the recommended dose is dependent on national guidelines, however, the maximum dose should not exceed 4,000 IU/day. Treatment of pregnant women with high-dose vitamin D is not recommended.

Breast-feeding

Vitamin D_3 and metabolites pass into the breast-milk. This should, however, be borne in mind when administering additional vitamin D to the child. Treatment with high-dose vitamin D in breast-feeding women is not recommended.

Fertility
Normal endogenous levels of vitamin D are not expected to have any adverse effects on fertility.

4.7 Effects on ability to drive and use machines

There are no data about the effect of this product on driving capacity. An effect is, however, unlikely.

4.8 Undesirable effects

Adverse reactions are listed below, by system organ class and frequency. Frequencies are defined as: uncommon (>1/1,000, <1/100) or rare (>1/10,000, <1/1,000).

Metabolism and nutrition disorders
Uncommon: Hypercalcaemia and hypercalciuria.

Skin and subcutaneous disorders
Rare: Pruritus, rash and urticaria.

Reporting of suspected adverse reactions
HPRA Pharmacovigilance
Earlsfort Terrace
IRL - Dublin 2
Tel: +353 1 6764971
Fax: +353 1 6762517
Website: www.hpra.ie
e-mail: medsafety@hpra.ie

4.9 Overdose

The most serious consequence of acute or chronic overdose is hypercalcaemia due to vitamin D toxicity. Symptoms may include nausea, vomiting, polyuria, anorexia, weakness, apathy, thirst and constipation. Chronic overdoses can lead to vascular and organ calcification as a result of hypercalcaemia.

Treatment should consist of stopping all intake of vitamin D and rehydration.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Vitamin D and analogues, ATC code: A11CC05

In its biologically active form, vitamin D^3 stimulates intestinal calcium absorption, incorporation of calcium into the osteoid, and release of calcium from bone tissue.

In the small intestine it promotes rapid and delayed calcium uptake. The passive and active transport of phosphate is also stimulated.

In the kidney, it inhibits the excretion of calcium and phosphate by promoting tubular resorption. The production of parathyroid hormone (PTH) in the parathyroids is inhibited directly by the biologically active form of vitamin D^3. PTH secretion is inhibited additionally by the increased calcium uptake in the small intestine under the influence of biologically active vitamin D^3.

5.2 Pharmacokinetic properties

Absorption
Vitamin D is well absorbed from the gastro-intestinal tract in the presence of bile, so the administration with food might therefore facilitate the absorption of vitamin D^3.

Distribution and Biotransformation

Colecalciferol and its metabolites circulate in the blood bound to a specific globulin. It is hydroxylated in the liver to form 25-hydroxycolecalciferol and then undergoes further hydroxylation in the kidney to form the active metabolite 1, 25 dihydroxycolecalciferol (calcitriol), responsible for increasing calcium absorption. Vitamin D, which is not metabolised, is stored in adipose and muscle tissues.

After a single oral dose of colecalciferol, the maximum serum concentrations of the primary storage form are reached after approximately 7 days. 25-hydroxycolecalciferol is then slowly eliminated with an apparent half-life in serum of about 50 days.

Elimination
Vitamin $D_3$and its metabolites are excreted mainly in the bile and faeces with a small percentage found in urine.

Special population
A defect in the metabolism and excretion of vitamin D has been described in patients with chronic renal failure.

5.3 Preclinical safety data

Cholecalciferol has been shown to be teratogenic in high doses in animals (4-15 times the human dose). Offspring from pregnant rabbits treated with high doses of vitamin D had lesions anatomically similar to those of supravalvular aortic stenosis and offspring not showing such changes show vasculotoxicity similar to that of adults following acute vitamin D toxicity.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Capsule content:
Maize oil, refined
Butylated hydroxytoluene (BHT) (E321)

Capsule shell:
Glycerol (E422)
Purified Water
Quinoline Yellow (E104)
Gelatin (E441)

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years

6.4 Special precautions for storage

This medicinal product does not require any special temperature storage conditions.
Store blister foil in original container in order to protect from light.

6.5 Nature and contents of container

Opaque, white PVC/PVdC blister tray with aluminium foil.
Pack sizes: 4, 6, 15 or 50 capsules.
Not all pack sizes may be marketed.

6.6 Special precautions for disposal

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7 MARKETING AUTHORISATION HOLDER

Stada Arzneimittel AG
Stadastrasse 2-18
D-61118 Bad Vilbel
Germany

8 MARKETING AUTHORISATION NUMBER

PA0593/044/003

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 24th November 2017

10 DATE OF REVISION OF THE TEXT

October 2021