

Summary Of Product Characteristics

Finasteride Tablets USP 5mg

1. Name of the medicinal product

Finasteride 5mg film-coated tablets

2. Qualitative and quantitative composition

Each film coated Tablet contains:

Finasteride USP 5mg

Excipients q.s

Colour: Brilliant Blue

3. Pharmaceutical form

Film-coated tablet

4. Clinical particulars

4.1 Therapeutic indications

Finasteride 5mg is indicated for the treatment and control of benign prostatic hyperplasia (BPH) to:

- cause regression of the enlarged prostate, improve urinary flow and improve the symptoms associated with BPH
- reduce the incidence of acute urinary retention and reduce need for surgery including transurethral resection of the prostate (TURP) and prostatectomy

Finasteride should be administered in patients with an enlarged prostate (prostate volume above ca. 40ml).

4.2 Posology and method of administration

Dosage

The recommended dose is one Finasteride 5 mg tablet daily (equivalent to 5 mg finasteride).

Finasteride can be given alone or in combination with the alpha-blocker doxazosin (see section 5.1 Pharmacodynamic properties).

Finasteride is for oral use only.

Posology

Dosage in adults

Even though improvement can be seen within a short time, treatment for at least 6 months may be necessary in order to determine objectively whether a satisfactory response to treatment has been achieved.

Dosage in the elderly

Dosage adjustments are not necessary although pharmacokinetic studies have shown that the elimination rate of finasteride is slightly decreased in patients over the age of 70.

Dosage in hepatic insufficiency

There is no data available in patients with hepatic insufficiency (see section 4.4).

Dosage in renal insufficiency

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Dosage adjustments are not necessary in patients with varying degrees of renal insufficiency (starting from creatinine clearance as low as 9ml/min) as in pharmacokinetic studies renal insufficiency was not found to affect the elimination of finasteride. Finasteride has not been studied in patients on haemodialysis.

Method of administration: For oral use only.

The film-coated tablets should be swallowed whole and should not be divided or crushed.

The tablets should be taken either on an empty stomach or with a meal.

4.3 Contraindications

Hypersensitivity to the active substance or to any of the excipients listed in section 6.1

Finasteride is not indicated for use in women or children.

Finasteride is contraindicated in the following:

- Hypersensitivity to any component of this product.
- Pregnancy—Use in women when they are or may potentially be pregnant (see 4.6 Pregnancy and lactation, Exposure to finasteride – risk to male fetus).

4.4 Special warnings and precautions for use

General:

To avoid obstructive complications it is important that patients with large residual urine and/or heavily decreased urinary flow are carefully controlled. The possibility of surgery should be an option.

Effects on prostate-specific antigen (PSA) and prostate cancer detection:

No clinical benefit has yet been demonstrated in patients with prostate cancer treated with finasteride. Patients with BPH and elevated serum prostate specific antigen (PSA) were monitored in controlled clinical studies with serial PSAs and prostate biopsies. In these BPH studies, finasteride did not appear to alter the rate of prostate cancer detection, and the overall incidence of prostate cancer was not statistically different in patients treated with finasteride or placebo.

Digital rectal examinations as well as other evaluations for prostate cancer are recommended prior to initiating therapy with finasteride and periodically thereafter. Serum PSA is also used for prostate cancer detection. Generally a baseline PSA > 10 ng/ml (Hybritech) prompts further evaluation and consideration of biopsy; for PSA levels between 4 and 10 ng/ml, further evaluation is advisable. There is considerable overlap in PSA levels among men with and without prostate cancer. Therefore, in men with BPH, PSA values within the normal reference range do not rule out prostate cancer, regardless of treatment with finasteride. A baseline PSA < 4 ng/ml does not exclude prostate cancer.

Finasteride causes a decrease in serum PSA concentrations by approximately 50% in patients with BPH, even in the presence of prostate cancer. This decrease in serum PSA levels in patients with BPH treated with finasteride should be considered when evaluating PSA data and does not rule out concomitant prostate cancer. This decrease is predictable over the entire range of PSA values, although it may vary in individual patients. Analysis of PSA data from over 3000 patients in the 4- year, double-blind, placebo-controlled finasteride Long-Term Efficacy and Safety Study [PLESS] confirmed that in typical patients treated with finasteride

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for six months or more, PSA values should be doubled for comparison with normal ranges in untreated men. This adjustment preserves the sensitivity and specificity of the PSA assay and maintains its ability to detect prostate cancer.

Any sustained increase in PSA levels of patients treated with finasteride should be carefully evaluated, including consideration of non-compliance to finasteride therapy.

Percent free PSA (free to total PSA ratio) is not significantly decreased by finasteride. The ratio of free to total PSA remains constant even under the influence of finasteride. When percent free PSA is used as an aid in the detection of prostate cancer, no adjustment to its value is necessary.

Drug/laboratory test interactions

Effect on levels of PSA

Serum PSA concentration is correlated with patient age and prostatic volume, and prostatic volume is correlated with patient age. When PSA laboratory determinations are evaluated, consideration should be given to the fact that PSA levels decrease in patients treated with finasteride. In most patients, a rapid decrease in PSA is seen within the first months of therapy, after which time PSA levels stabilize to a new baseline. The post-treatment baseline approximates half of the pre-treatment value. Therefore, in typical patients treated with finasteride for six months or more, PSA values should be doubled for comparison to normal ranges in untreated men. For clinical interpretation, see 4.4 Special Warnings and precautions for use, Effects on PSA and prostate cancer detection.

Effects on fertility

See section 4.6

Breast cancer in men

Breast cancer has been reported in men taking finasteride 5 mg during clinical trials and in the post-marketing period. Physicians should instruct their patients to promptly report any changes in their breast tissue such as lumps, pain, gynaecomastia or nipple discharge.

Pediatric use

Finasteride is not indicated for use in children.

Safety and effectiveness in children have not been established.

Hepatic insufficiency

The effect of hepatic insufficiency on the pharmacokinetics of finasteride has not been studied.

Mood alterations and depression

Mood alterations including depressed mood, depression and, less frequently, suicidal ideation have been reported in patients treated with finasteride 5 mg. Patients should be monitored for psychiatric symptoms and if these occur, the patient should be advised to seek medical advice.

Lactose

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This medicinal product contains lactose monohydrate. Patients with rare hereditary problems of galactose intolerance, total lactase deficiency or glucose-galactose malabsorption should not take this medicine.

Sodium

This medicinal product contains less than 1 mmol sodium (23 mg) per each tablet, that is to say essentially 'sodium-free'.

4.5 Interaction with other medicinal products and other forms of interaction

No drug interactions of clinical importance have been identified. Finasteride is metabolized primarily via, but does not appear to affect significantly, the cytochrome P450 3A4 system. Although the risk for finasteride to affect the pharmacokinetics of other drugs is estimated to be small, it is probable that inhibitors and inducers of cytochrome P450 3A4 will affect the plasma concentration of finasteride. However, based on established safety margins, any increase due to concomitant use of such inhibitors is unlikely to be of clinical significance. Finasteride does not appear to affect significantly the cytochrome P450-linked drug metabolizing enzyme system. Compounds which have been tested in man have included propranolol, digoxin, glibenclamide, warfarin, theophylline and phenazone and no meaningful interactions were found.

4.6 Fertility, pregnancy and lactation

Pregnancy

Finasteride is contraindicated for use in women when they are or may potentially be pregnant (see section 4.3).

Because of the ability of the type II 5 α -reductase-inhibitors to inhibit conversion of testosterone to dihydrotestosterone, these drugs, including finasteride, may cause abnormalities of the external genitalia of a male fetus when administered to a pregnant woman (see section 5.3).

Exposure to finasteride - risk to male fetus.

Women should not handle crushed or broken tablets of finasteride when they are or may potentially be pregnant because of the possibility of absorption of finasteride and the subsequent potential risk to a male fetus (see section 6.6). Finasteride tablets are coated and will prevent contact with the active ingredient during normal handling, provided that the tablets have not been broken or crushed.

Small amounts of finasteride have been recovered from the semen in subjects receiving finasteride 5 mg/day. It is not known whether a male fetus may be adversely affected if his mother is exposed to the semen of a patient being treated with finasteride. When the patient's sexual partner is or may potentially be pregnant, the patient is recommended to minimise exposure of his partner to semen.

Breastfeeding Finasteride is not indicated for use in women.

It is not known whether finasteride is excreted in human milk.

Fertility

Long-term data on fertility in humans are lacking, and specific studies in subfertile men have not been conducted. The male patients who were planning to father a child were initially excluded from clinical trials. Although, animal studies did not show relevant negative effects

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on fertility, spontaneous reports of infertility and /or poor seminal quality were received post-marketing. In some of these reports, patients had other risk factors that might have contributed to infertility.

Normalization or improvement of seminal quality has been reported after discontinuation of finasteride.

4.7 Effects on ability to drive and use machines

There are no data to suggest that finasteride affects the ability to drive or use machines.

4.8 Undesirable effects

The most frequent adverse reactions are impotence and decreased libido. These adverse reactions occur early in the course of therapy and resolve with continued treatment in the majority of patients.

The adverse reactions reported during clinical trials and/or post-marketing use are listed in the table below.

Frequency of adverse reactions is determined as follows:

Very common ($\geq 1/10$), Common ($\geq 1/100$ to $< 1/10$), Uncommon ($\geq 1/1,000$ to $< 1/100$), Rare ($\geq 1/10,000$ to $< 1/1,000$), Very rare ($< 1/10,000$), not known (cannot be estimated from the available data).

The frequency of adverse reactions reported during post-marketing use cannot be determined as they are derived from spontaneous reports.

System Organ Class	Frequency: adverse reactions
Immune system disorders	<i>Unknown</i> : hypersensitivity reactions including swelling of the lips tongue, throat and face
Psychiatric disorders	<i>Common</i> : decreased libido
	<i>Not known</i> : depression, decreased libido that continued after discontinuation of treatment, Anxiety
Cardiac disorders	<i>Unknown</i> : palpitation
Hepatobiliary disorders	<i>Unknown</i> : increased hepatic enzymes
Skin and subcutaneous tissue disorders	<i>Uncommon</i> : rash
	<i>Unknown</i> : pruritus, urticaria
Reproductive system and breast disorders	<i>Common</i> : impotence
	<i>Uncommon</i> : ejaculation disorder, breast tenderness, breast enlargement
	<i>Unknown</i> : testicular pain, erectile dysfunction that continued after discontinuation of treatment, hematospermia; male infertility and/or poor seminal quality
Investigations	<i>Common</i> : decreased volume of ejaculate

In addition following has been reported in clinical trials and post-marketing use: male breast cancer (see section 4.4).

Medical therapy of prostatic symptoms (MTOPS):

The MTOPS study compared finasteride 5 mg/day (n=768), doxazosin 4 or 8 mg/day (n=756), combination therapy of finasteride 5 mg/day and doxazosin 4 or 8 mg/day (n=786), and placebo (n=737). In this study, the safety and tolerability profile of the combination

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therapy was generally consistent with the profiles of the individual components. The incidence of ejaculation disorder in patients receiving combination therapy was comparable to the sum of incidences of this adverse experience for the two monotherapies.

Other long-term data

In a 7 year placebo-controlled trial that enrolled 18,882 healthy men, of 9060 had prostate needle biopsy data available for analysis, prostate cancer was detected in 803 (18.4%) men receiving finasteride and 1147 (24.4%) men receiving placebo. In the finasteride group, 280 (6.4%) men had prostate cancer with Gleason scores of 7-10 detected on needle biopsy vs 237 (5.1%) men in the placebo group. Additional analyses suggest that the increase in the prevalence of high-grade prostate cancer observed in the finasteride group may be explained by a detection bias due to the effect of finasteride on prostate volume. Of the total cases of prostate cancer diagnosed in this study, approximately 98% were classified as intracapsular (clinical stage T1 or T2) at diagnosis. The clinical significance of the Gleason 7-10 data is unknown.

Laboratory test findings

When PSA laboratory determinations are evaluated, consideration should be given to the fact that PSA levels are decreased in patients treated with finasteride (see section 4.4).

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via Yellow Card Scheme

Website: www.mhra.gov.uk/yellowcard

4.9 Overdose

Patients have received single doses of finasteride up to 400mg and multiple doses up to 80mg/day for three months without adverse effects. No specific treatment of overdosage with finasteride is recommended.

5. Pharmacological properties

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Testosterone 5 α -reductase inhibitors

ATC code: G04CB01

Mechanism of action

Finasteride is a synthetic 4-azasteroid, a specific competitive inhibitor of the intracellular enzyme Type-II-5 α -reductase. The enzyme converts testosterone into the more potent androgen dihydrotestosterone (DHT). The prostate gland and, consequently, also the hyperplastic prostate tissue are dependent on the conversion of testosterone to DHT for their normal function and growth. Finasteride has no affinity for the androgen receptor.

Clinical efficacy and safety

Clinical studies show a rapid reduction of the serum DHT levels of 70%, which leads to a reduction on prostate volume. After 3 months, a reduction of approx. 20% in the volume of the gland occurs, and the shrinking continues and reaches approximately 27% after 3 years.

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Marked reduction takes place in the periurethral zone immediately surrounding the urethra. Urodynamic measurements have also confirmed a significant reduction of detrusor pressure as a result of the reduced obstruction.

Significant improvements in maximum urinary flow rate and symptoms have been obtained after a few weeks, compared with the start of treatment. Differences from placebo have been documented at 4 and 7 months, respectively.

All efficacy parameters have been maintained over a 3-year follow-up period.

Effects of four years treatment with finasteride on incidence of acute urine retention need for surgery, symptom-score and prostate volume:

In clinical studies of patients with moderate to severe symptoms of BPH, an enlarged prostate on digital rectal examination and low residual urinary volumes, finasteride reduced the incidence of acute retention of urine from 7/100 to 3/100 over four years and the need for surgery (TURP or prostatectomy) from 10/100 to 5/100. These reductions were associated with a 2-point improvement in QUASI-AUA symptom score (range 0-34), a sustained regression in prostate volume of approximately 20% and a sustained increase in urinary flow rate.

Medical therapy of prostatic symptoms

The Medical Therapy of Prostatic Symptoms (MTOPS) Trial was a 4- to 6-year study in 3047 men with symptomatic BPH who were randomised to receive finasteride 5mg/day (n=768), doxazosin 4 or 8mg/day* (titrated from 1 mg to 4 or 8 mg over a 3-week period, n = 756), the combination of finasteride 5mg/day and doxazosin 4 or 8mg/day (n=786), or placebo (n=737). The primary endpoint was time to clinical progression of BPH, defined as a ≥ 4 point confirmed increase from baseline in symptom score, acute urinary retention, BPH-related renal insufficiency, recurrent urinary tract infections or urosepsis, or incontinence. Compared to placebo, treatment with finasteride, doxazosin, or combination therapy resulted in a significant reduction in the risk of clinical progression of BPH by 34, 39, and 67% respectively.

During the study, the frequency of overall clinical progression in men in the placebo, finasteride, doxazosin, and combination groups was 4.5, 2.9, 2.7, and 1.5 per 100 person-years. Finasteride reduced the absolute frequency of clinical progression by 1.6%, doxazosin by 1.8% and combination therapy by 3% per year. The majority of the events (274 out of 351) that constituted BPH progression were confirmed ≥ 4 point increases in symptom score; the risk of symptom score progression was reduced by 30 (95% CI 6 to 48%), 46 (95% CI 25 to 60%), and 64% (95% CI 48 to 75%) in the finasteride, doxazosin, and combination groups, respectively, compared to placebo. Acute urinary retention accounted for 41 of the 351 events of BPH progression; the risk of developing acute urinary retention was reduced by 67, 31, and 79% in the finasteride, doxazosin, and combination groups, respectively, compared to placebo. Only the finasteride and combination therapy groups were significantly different from placebo.

5.2 Pharmacokinetic properties

Absorption:

The bioavailability of finasteride is approx. 80%. Peak plasma concentrations are reached approx. 2 hours after drug intake, and absorption is complete after 6-8 hours.

Distribution:

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Binding to plasma proteins is approx. 93%. Clearance and volume of distribution are approx. 165ml/min (70-279ml/min) and 76 l (44-96 l), respectively. Accumulation of small amounts of finasteride is seen on repeated administration. After a daily dose of 5mg the lowest steady-state concentration of finasteride has been calculated to be 8-10ng/ml, which remains stable over time.

Biotransformation:

Finasteride is metabolised in the liver. Finasteride does not significantly affect the cytochrome P 450 enzyme system. Two metabolites with low 5 α -reductase-inhibiting effects have been identified.

Elimination:

The plasma half-life averages 6 hours (4-12 hours) (in men >70 years of age, 8 hours, range 6-15 hours).

After administration of radioactively labelled finasteride, approx. 39% (32-46%) of the given dose is excreted in the urine in the form of metabolites. Virtually no unchanged finasteride is recovered in the urine. Approximately 57% (51-64%) of the total dose is excreted in the faeces.

Finasteride has been found to cross the blood-brain barrier. Small amounts of finasteride have been recovered in the seminal fluid of treated. In 2 studies of healthy subjects (n=69) receiving finasteride 5mg/day for 6-24 weeks, finasteride concentrations in semen ranged from undetectable (<0.1ng/ml) to 10.54ng/ml. In an earlier study using a less sensitive assay, finasteride concentrations in the semen of 16 subjects receiving finasteride 5mg/day ranged from undetectable (<1.0ng/ml) to 21ng/ml. Thus, based on a 5-ml ejaculate volume, the amount of finasteride in semen was estimated to be 50- to 100-fold less than the dose of finasteride (5 μ g) that had no effect on circulating DHT levels in men (see also section 5.3.).

In patients with chronic renal impairment, whose creatinine clearance ranged from 9-55ml/min, the disposition of a single dose of ¹⁴C-finasteride was not different from that in healthy volunteers (see section 4.2). Protein binding also did not differ in patients with renal impairment. A portion of the metabolites which normally is excreted renally was excreted in the faeces. It therefore appears that faecal excretion increases commensurate to the decrease in urinary excretion of metabolites. Dosage adjustment in non-dialysed patients with renal impairment is not necessary.

5.3 Preclinical safety data

Non-clinical data reveal no special hazard for humans based on conventional studies of repeated dose toxicity, genotoxicity, and carcinogenic potential. Reproduction toxicology studies in male rats have demonstrated reduced prostate and seminal vesicular weights, reduced secretion from accessory genital glands and reduced fertility index (caused by the primary pharmacological effect of finasteride). The clinical relevance of these findings is unclear.

As with other 5 α -reductase inhibitors, feminisation of male rat foetuses has been seen with administration of finasteride in the gestation period. Intravenous administration of finasteride to pregnant rhesus monkeys at doses up to 800ng/day during the entire period of embryonic and foetal development resulted in no abnormalities in male foetuses. This dose is about 60-120 times higher than the estimated amount in semen of a man who have taken 5mg finasteride, and to which a woman could be exposed via semen. The reproductive toxicity is

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believed to be mediated via the intended inhibition of 5 α -reductase. Taken into account the species enzyme difference in sensitivity to finasteride inhibition the margin of pharmacological exposure would be about 4 times. In confirmation of the relevance of the Rhesus model for human foetal development, oral administration of finasteride 2mg/kg/day (the systemic exposure (AUC) of monkeys was below or in the range of that of men who have taken 5mg finasteride, or approximately 1-2 million times the estimated amount of finasteride in semen) to pregnant monkeys resulted in external genital abnormalities in male foetuses. No other abnormalities were observed in male foetuses and no finasteride-related abnormalities were observed in female foetuses at any dose.”

6. Pharmaceutical particulars

6.1 List of excipients

Microcrystalline cellulose 101

Lactose monohydrate

Povidone (PVP K30)

Maize Starch

Purified Talc

Magnesium Stearate

Sodium lauryl sulphate

Sodium Starch Glycolate

Brilliant Blue

Isopropyl alcohol

Methylene Dichloride

6.2 Incompatibilities

Not applicable

6.3 Shelf life

36 Months

6.4 Special precautions for storage

Store below 30^oC.

6.5 Nature and contents of container

Aluminium-Pvc Blister

2X14 Tablets

6.6 Special precautions for disposal and other handling

Women who are pregnant or may become pregnant must not handle crushed or broken Finasteride tablets because of the possibility of absorption of finasteride and the subsequent potential risk to a male foetus. Finasteride tablets have a film coating, which prevents contact with the active ingredient provided that the tablets have not been broken or crushed.

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

7. Registrant

8. Manufacturer

UNIZA LIFECARE PRIVATE LIMITED

Sr. No. 919/7, (Old Sr. No. 404),

Kadi-Detroj Road,

Balasar, Tal. – Kadi, Dist. – Mehsana,

Gujarat – 382 715, India

9. Date of publication or Revision

11- May-2022