For the use only of a Registered Medical Practitioner or a Hospital or a Laboratory.

IOPROST

Latanoprost Eye Drops Solution 0.005% w/v

Composition:
Each ml contains
Latanoprost .....50 mcg
Benzalkonium Chloride Ph. Eur. .....0.2 mg
(As Preservative)
Aqueous Buffered Vehicle .....q.s.

Description:
Clear, colourless solution.

Pharmacodynamics:
The active substance latanoprost, a prostaglandin F2αanalogue, is a selective prostanoid FP receptor agonist which reduces the intraocular pressure by increasing the outflow of aqueous humour. Reduction of the intraocular pressure in man starts about three to four hours after administration and maximum effect is reached after eight to twelve hours. Pressure reduction is maintained for at least 24 hours.

Latanoprost has no or negligible effects on the intraocular blood circulation when used at the clinical dose and studied in monkeys. However, mild to moderate conjunctival or episcleral hyperaemia may occur during topical treatment.

Chronic treatment with latanoprost in monkey eyes, which had undergone extracapsular lens extraction, did not affect the retinal blood vessels as determined by fluorescein angiography.

Latanoprost has not induced fluorescein leakage in the posterior segment of pseudophakic human eyes during short-term treatment.

Pharmacokinetics:
Latanoprost (mw 432.58) is an isopropyl ester prodrug which per se is inactive, but after hydrolysis to the acid of latanoprost becomes biologically active.

The prodrug is well absorbed through the cornea and all drug that enters the aqueous humour is hydrolysed during the passage through the cornea. There is practically no metabolism of the acid of latanoprost in the eye.

The main metabolism occurs in the liver. The half life in plasma is 17 minutes in man. The main metabolites, the 1,2-dinor and 1,2,3,4-tetranor metabolites, exert no or only weak biological activity in animal studies and are excreted primarily in the urine.

Indication:
Reduction of elevated intraocular pressure (IOP) in patients with open-angle glaucoma, chronic angle closure glaucoma and ocular hypertension.

Recommended Dose:
Use in adults (including the elderly):
One drop in the affected eye(s) once daily. Optimal effect is obtained if latanoprost is administered in the evening.

The dosage of latanoprost should not exceed once daily since it has been shown that more frequent administration decreases the intraocular pressure lowering effect.

If one dose is missed, treatment should continue with the next dose as normal.
Latanoprost may be used concomitantly with other classes of topical ophthalmic drug products to lower IOP. If more than one topical ophthalmic drug is being used, the drugs should be administered at least five minutes apart. Contact lenses should be removed before instillation of the eye drops and may be reinserted after fifteen minutes.

Use in children:
Safety and effectiveness in children have not been established.

Route of Administration:
For ocular use only

Contraindications:
Known hypersensitivity to latanoprost, benzalkonium chloride or any other ingredients in this product.

Warnings and precautions:
Latanoprost may gradually change eye colour by increasing the amount of brown pigment in the iris. Before treatment is instituted, patients should be informed of the possibility of a permanent change in eye colour. Unilateral treatment can result in permanent heterochromia.

This change in eye colour has predominantly been seen in patients with mixed coloured irides, i.e. blue-brown, grey-brown, yellow-brown and green-brown. The colour change is due to increased melanin content in the stromal melanocytes of the iris and not to an increase in number of melanocytes. Typically, the brown pigmentation around the pupil spreads concentrically towards the periphery in affected eyes, but the entire iris or parts of it may become more brownish. No further increase in brown iris pigment has been observed after discontinuation of treatment.

Neither naevi nor freckles of the iris have been affected by treatment. However, patients should be monitored regularly and if the clinical situation warrants, latanoprost treatment may be discontinued.

There is limited experience of latanoprost in chronic angle closure glaucoma, open angle glaucoma of pseudophakic patients and in pigmentary glaucoma. There is no experience of latanoprost in inflammatory and neovascular glaucoma, inflammatory ocular conditions, or congenital glaucoma. latanoprost has no or little effect on the pupil, but there is no experience in acute attacks of closed angle glaucoma. Therefore, it is recommended that latanoprost should be used with caution in these conditions until more experience is obtained.

There are limited study data on the use of latanoprost during the peri-operative period of cataract surgery. Latanoprost should be used with caution in these patients.

Latanoprost should be used with caution in patients with a history of herpetic keratitis, and should be avoided in cases of active herpes simplex keratitis and in patients with a history of recurrent herpetic keratitis specifically associated with prostaglandin analogues.

Reports of macular oedema have occurred mainly in aphakic patients, in pseudophakic patients with torn posterior lens capsule or anterior chamber lenses, or in patients with known risk factors for cystoid macular oedema (such as diabetic retinopathy and retinal vein occlusion). latanoprost should be used with caution in aphakic patients, in pseudophakic patients with torn posterior lens capsule or anterior chamber lenses, or in patients with known risk factors for cystoid macular oedema.

In patients with known predisposing risk factors for iritis/uveitis, latanoprost can be used with caution.

There is limited experience from patients with asthma, but some cases of exacerbation of asthma and/or dyspnoea were reported in post marketing experience. Asthmatic patients should therefore be treated with caution until there is sufficient experience.

Periorbital skin discolouration has been observed, the majority of reports being in Japanese patients. Experience to date shows that periorbital skin discolouration is not permanent and in some cases has reversed while continuing treatment with latanoprost.

Latanoprost may gradually change eyelashes and vellus hair in the treated eye and surrounding areas; these changes include increased length, thickness, pigmentation, number of lashes or hairs and misdirected growth of eyelashes. Eyelash changes are reversible upon discontinuation of treatment.

Latanoprost contains benzalkonium chloride, which is commonly used as a preservative in ophthalmic products. Benzalkonium chloride has been reported to cause punctate keratopathy and/or toxic ulcerative keratopathy, may cause eye irritation and is known to discolour soft contact lenses. Close monitoring is required with frequent or prolonged use of Xalatan in dry eye patients, or in conditions where the cornea is compromised. Contact lenses may absorb benzalkonium chloride and these should be removed before applying latanoprost but may be reinserted after 15 minutes.

Paediatric population
Efficacy and safety data in the age group < 1 year (4 patients) are very limited. No data are available for preterm infants (less than 36 weeks gestational age).

In children from 0 to < 3 years old that mainly suffers from PCG (Primary Congenital Glaucoma), surgery (e.g. trabeculotomy/goniotomy) remains the first line treatment.

Long-term safety in children has not yet been established.

Interactions with other medicaments:
Definitive drug interaction data are not available.

There have been reports of paradoxical elevations in intraocular pressure following the concomitant ophthalmic administration of two prostaglandin analogues. Therefore, the use of two or more prostaglandins, prostaglandin analogues or prostaglandin derivatives is not recommended.

Pregnancy:
Pregnancy
The safety of this medicinal product for use in human pregnancy has not been established. It has potential hazardous pharmacological effects with respect to the course of pregnancy, to the unborn or the neonate. Therefore, latanoprost should not be used during pregnancy.

Lactation
Latanoprost and its metabolites may pass into breast milk and latanoprost should therefore not be used in nursing women or breast feeding should be stopped.

Effects on ability to drive and use machines
In common with other eye preparations, instillation of eye drops may cause transient blurring of vision. Until this has resolved, patients should not drive or use machines.

Side Effects
Infections and Infestations:

Not known: Herpetic keratitis

Eye Disorders:
Very common: Increased iris pigmentation; mild to moderate conjunctival hyperaemia eye irritation (burning grittiness, itching, stinging and foreign body sensation); eyelash and vellus hair changes (increased length, thickness, pigmentation and number) (vast majority of reports in Japanese population).

Common: transient punctate epithelial erosions, mostly without symptoms; blepharitis; eye pain.

Uncommon: Eyelid oedema: dry eye; keratitus; vision blurred; conjunctivitis.

Rare: Iritis/uveitis (the majority of reports in patients with concomitant predisposing factors); macular oedema; symptomatic corneal oedema and erosions; periorbital oedema; misdirected eyelashes sometimes resulting in eye irritation; extra row of cilia at the aperture of the meibomian glands (distichiasis).

Not known: iris cyst

Nervous System Disorders:

Not known: Headache, Dizziness.

Cardiac Disorders:
Very rare: Aggravation of angina in patients with pre-existing disease.

Not known: Palpitations.

Respiratory, Thoracic and Mediastinal Disorders:

Rare: Asthma, asthma exacerbation and dyspnoea.

Skin and Subcutaneous Tissue Disorders:

Uncommon: Skin rash.

Rare: Localised skin reaction on the eyelids; darkening of the palpebral skin of the eyelids.

Musculoskeletal and Connective Tissue Disorders:

Not known: Myalgia; Arthralgia.

General Disorders and Administration Site Conditions:

Very rare: Chest pain.

Symptoms and treatment of Overdose:
Apart from ocular irritation and conjunctival hyperaemia, no other ocular side effects are known if latanoprost is overdosed.

If latanoprost is accidentally ingested the following information may be useful: One bottle contains 125 micrograms latanoprost. More than 90% is metabolised during the first pass through the liver. Intravenous infusion of 3 micrograms/kg in healthy volunteers produced mean plasma concentrations 200 times higher than during clinical treatment and induced no symptoms, but a dose of 5.5-10 micrograms/kg caused nausea, abdominal pain, dizziness, fatigue, hot flushes and sweating. In monkeys, latanoprost has been infused intravenously in doses of up to 500 micrograms/kg without major effects on the cardiovascular system.

Intravenous administration of latanoprost in monkeys has been associated with transient bronchoconstriction. However, in patients with moderate bronchial asthma, bronchoconstriction was not induced by latanoprost when applied topically on the eyes in a dose of seven times the clinical dose of latanoprost. If over dosage with latanoprost occurs, treatment should be symptomatic.

Storage:
Before opening: Protect from light. Store between 2°C to 8°C.
After opening: Do not store above 25°C and use within four weeks.

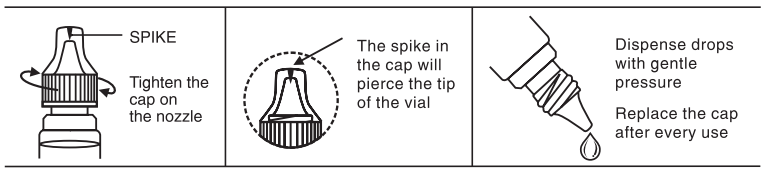
Shelf Life: 24 months

Presentation: 2.5 mL solution filled in 5 mL labeled vial with HIPS cap packed in a carton.

Regn. No. MAL14055152AZ

Date of Revision: May 2023

MODE OF USE



Manufactured in India by:
FDC Limited
Regd. Office: B-8, MIDC Industrial Area,
Waluj, Aurangabad - 431 136, Maharashtra

D1

FDC Limited	LEAFLET	Minipharma Code no. **Front: 1943 / Back: 1945**
Size	110 (L) x 230 (H) mm	
Folded Size	----------	
No. of Folds	----------	
GSM	60 gsm	
Paper	Maplitho	
Specification No.	----------	
Colour	■ TEXT IN BLACK	
Artwork Code: D1	Supercedes A/W Code:	
Location: Waluj -Malaysia	Prepared On: 31-05-2023	
Reason for Change: Change in presentation.		