For the use of a registered medical practitioner or a Hospital or a Laboratory only

OCUDOR

Dorzolamide Hydrochloride Eye Drops 2 % w/v

Composition:
Each ml contains:
Dorzolamide Hydrochloride Ph.Eur…..... 22.3 mg
Equivalent to Dorzolamide……..…..20 mg
Benzalkonium Chloride Ph.Eur……..0.0075 % w/v
(as Preservative)

Description:
Clear, colourless, slightly viscous solution, practically free from visible particles.

Pharmacodynamics:
Mechanism of action

Carbonic anhydrase (CA) is an enzyme found in many tissues of the body including the eye. In humans, carbonic anhydrase exists as a number of isoenzymes, the most active being carbonic anhydrase II (CA-II) found primarily in red blood cells (RBCs) but also in other tissues. Inhibition of carbonic anhydrase in the ciliary processes of the eye decreases aqueous humor secretion. The result is a reduction in intra-ocular pressure (IOP). Dorzolamide contains dorzolamide hydrochloride, a potent inhibitor of human carbonic anhydrase II. Following topical ocular administration, dorzolamide reduces elevated intra-ocular pressure, whether or not associated with glaucoma. Elevated intraocular pressure is a major risk factor in the pathogenesis of optic nerve damage and visual-field loss. Dorzolamide does not cause pupillary constriction and reduces intraocular pressure without side effects such as night blindness, accommodative spasm. Dorzolamide has minimal or no effect on pulse rate or blood pressure. Topically applied beta-adrenergic blocking agents also reduce IOP by decreasing aqueous humor secretion but by a different mechanism of action. Studies have shown that when dorzolamide is added to a topical beta-blocker, additional reduction in IOP is observed; this finding is consistent with the reported additive effects of beta-blockers and oral carbonic anhydrase inhibitors.

Pharmacodynamic effects
In patients with glaucoma or ocular hypertension, dorzolamide given as monotherapy or adjunctive therapy with ophthalmic beta-blockers lowers IOP. Efficacy during long-term monotherapy was similar to betaxolol and slightly less than timolol. When used as adjunctive therapy to ophthalmic beta-blockers, dorzolamide gives additional IOP lowering similar to pilocarpine.

Pharmacokinetics:
Unlike oral carbonic anhydrase inhibitors, topical administration of dorzolamide hydrochloride allows for the drug to exert its effects directly in the eye at substantially lower doses and therefore with less systemic exposure. This resulted in a reduction in IOP without the acid-base disturbances or alterations in electrolytes characteristic of oral carbonic anhydrase inhibitors. When topically applied, dorzolamide reaches the systemic circulation. Dorzolamide accumulates in RBCs during chronic dosing as a result of selective binding to CA-II while extremely low concentrations of free drug in plasma are maintained. The parent drug forms a single N-desethyl metabolite that inhibits CA-II less potently than the parent drug but also inhibits a less active isoenzyme (CA-I). The metabolite also accumulates in RBCs where it binds primarily to CA-I. Dorzolamide binds moderately to plasma proteins (approximately 33%). Dorzolamide is primarily excreted unchanged in the urine; the metabolite is also excreted in urine. After dosing ends, dorzolamide washes out of RBCs non linearly, resulting in a rapid decline of drug concentration initially, followed by a slower elimination phase with a half-life of about four months.
Dorzolamide given orally reaches steady state within 13 weeks. At steady state, there is virtually no free drug or metabolite in plasma; Similar pharmacokinetic results is observed after chronic, topical administration of dorzolamide. However, some elderly patients with renal impairment (estimated CrCl 30-60 ml/min) will have higher metabolite concentrations in RBCs without any meaningful differences in carbonic anhydrase inhibition and no clinically significant systemic side effects .

Indication:
Indicated in the treatment of elevated intraocular pressure in patients with: -Ocular hypertension -Open-angle glaucoma.

Recommended Dose:

- When use as monotherapy, the dose is one drop of dorzolamide in the conjunctival sac of the affected eye(s), three times daily.
- When used as adjunctive therapy with an ophthalmic beta-blocker, the dose is one drop of dorzolamide in the conjunctival sac of the affected eye(s), two times daily.
- When substituting dorzolamide for another ophthalmic antiglaucoma agent, discontinue the other agent after proper dosing on one day, and start dorzolamide on the next day.
- If more than one topical ophthalmic drug is being used, the drugs should be administrated at least ten minutes apart.

Mode of Use:

1. Tighten the cap on the nozzle.
2. The spike in the cap will pierce the tip of the vial.
3. Dispense drops with gentle pressure. Replace the cap after every use.

Route of Administration: For Ocular use only.

Contraindications:
The preparation is contraindicated in patients who are hypersensitive to any component of this product.

Warnings and precautions:
Dorzolamide has not been studied in patients with hepatic impairment and should therefore be used with caution in such patients. The management of patients with acute angle-closure glaucoma requires therapeutic interventions in addition to ocular hypotensive agents. Dorzolamide has not been studied in patients with acute angle-closure glaucoma.
Dorzolamide is a sulphonamide and although administered topically, is absorbed systemically.
Therefore the same types of adverse reactions that are attributable to sulphonamides may occur with topical administration. If signs of serious reactions of hypersensitivity occur, discontinue the use of this preparation.
Therapy with oral carbonic anhydrase inhibitors has been associated with urolithiasis as a result of acid-base disturbances, especially in patients with a prior history of renal calculi. Although no acid-base disturbances have been observed with dorzolamide, urolithiasis has been reported infrequently. Because dorzolamide is a topical carbonic anhydrase inhibitor that is absorbed systemically, patients with a prior history of renal calculi may be at increased risk of urolithiasis while using dorzolamide.
If allergic reactions (e.g. conjunctivitis and eyelid reactions) are observed, discontinuation of treatment should be considered.
There is a potential for an additive effect on the known systemic effects of carbonic anhydrase inhibition in patients receiving an oral carbonic anhydrase inhibitor and dorzolamide. The concomitant administration of dorzolamide and oral carbonic anhydrase inhibitors is not recommended.
Corneal oedemas and irreversible corneal decompensations have been reported in patients with pre-existing chronic corneal defects and/or a history of intra-ocular surgery while using Dorzolamide. Topical dorzolamide should be used with caution in such patients. Choroidal detachment concomitant with ocular hypotony have been reported after filtration procedures with administration of aqueous suppressant therapies. Dorzolamide contains the preservative benzalkonium chloride, which may cause eye irritation.
Benzalkonium chloride is known to discolour soft contact lenses.
Avoid contact with soft contact lenses. Remove contact lenses prior to application and wait at least 15 minutes before reinsertion.

Paediatric Population:
Dorzolamide has not been studied in patients less than 36 weeks gestational age and less than 1 week of age. Patients with significant renal tubular immaturity should only receive dorzolamide after careful consideration of the risk benefit balance because of the possible risk of metabolic acidosis.

Interactions with other medicaments:
No specific drug interaction studies have been performed.

Pregnancy and Lactation:
PREGNANCY
There are no adequate and well-controlled studies in pregnant women. Dorzolamide Hydrochloride Eye Drops should be used during pregnancy only if the potential benefit justifies the potential risk to the foetus.

NURSING MOTHERS
It is not known whether this drug is excreted in human milk. A decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Side Effects
Nervous system disorders:
Common: headache
Rare: dizziness, paraesthesia

Eye disorders:
Very common: burning and stinging,
Common: superficial punctate keratitis, tearing, conjunctivitis, eyelid inflammation, eye itching, eyelid irritation, blurred vision

Uncommon: iridocyclitis Rare: irritation including redness, pain, eyelid crusting, transient myopia (which resolved upon discontinuation of therapy), corneal oedema, ocular hypotony, choroidal detachment following filtration surgery

Respiratory, thoracic, and mediastinal disorders:
Rare: epistaxis

Gastrointestinal disorders:
Common: nausea, bitter taste
Rare: throat irritation, dry mouth

Skin and subcutaneous tissue disorders:
Rare: contact dermatitis, Stevens-Johnson syndrome, toxic epidermal necrolysis

Renal and urinary disorders:
Rare: urolithiasis

General disorders and administration site conditions:
Common: asthenia/fatigue
Rare: Hypersensitivity: signs and symptoms of local reactions (palpebral reactions) and systemic allergic reactions including angioedema, urticaria and pruritus, rash, shortness of breath, rarely bronchospasm

Symptoms and treatment of Overdose:
Only limited information is available with regard to human overdosage by accidental or deliberate ingestion of dorzolamide hydrochloride. The following have been reported with oral ingestion: somnolence; topical application: nausea, dizziness, headache, fatigue, abnormal dreams, and dysphagia.
Treatment should be symptomatic and supportive. Electrolyte imbalance, development of an acidotic state, and possible central nervous system effects may occur. Serum electrolyte levels (particularly potassium) and blood pH levels should be monitored.

Storage
Store below 30°C. Protect from direct light.
After opening: Store below 30°C. Protect from light.

Shelf Life: 24 months. Use the solution within 28 days after opening the vial.

Presentation: A vial of 5 ml

Reg. No.: MAL13125012AZ

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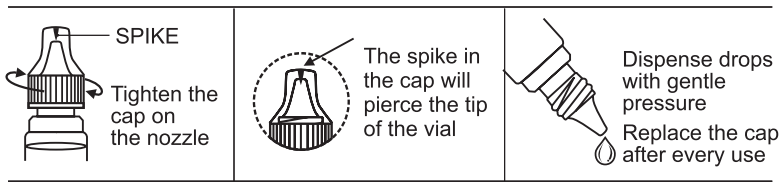
MODE OF USE



Manufactured in India by:
FDC Limited
Plot No. B-8, MIDC Industrial Area, Waluj,
Aurangabad - 431 136, Maharashtra State, India.

D1

FDC Limited	LEAFLET	Minipharma Code no. **Front: 1962 / Back: 1959**
Size	110 (L) x 280 (H) mm	
Folded Size	----------	
No. of Folds	----------	
GSM	40 gsm	
Paper	Bible Paper	
Specification No.	----------	
Colour	■ TEXT IN BLACK	
Artwork Code: D1	Supercedes A/W Code : W1DVLL02AESMY	
Location: Waluj - Malasiya	Prepared On: 03-12-2019	
Reason for Change: New Artwork made for Malaysia.		