CIPLOX Eye Ointment (Ciprofloxacin hydrochloride)

Qualitative and Quantitative Composition

CIPLOX Eye Ointment

Ciprofloxacin Hydrochloride equivalent to Ciprofloxacin.....0.3% w/w

Benzalkonium Chloride IP.....0.01% w/w

Dosage Form and Strength

Ciprofloxacin Eye Ointment 0.3% w/w

Clinical Particulars

Therapeutic Indications

CIPLOX Eye Ointment is indicated for the treatment of external ocular infection of the eyes.

Posology and Method of Administration

Apply a half-inch ribbon of ointment into the conjunctival sac three times a day on the first 2 days; then, for the next 5 days, apply a half-inch ribbon of ointment two times a day.

Contraindications

A history of hypersensitivity to ciprofloxacin or any other component of the medication is a contraindication to its use. A history of hypersensitivity to other quinolones may also contraindicate the use of ciprofloxacin.

Special Warnings and Precautions for Use

FOR TOPICAL OPHTHALMIC USE ONLY.

NOT FOR INJECTION INTO THE EYE.

Serious, and occasionally fatal, hypersensitivity (anaphylactic) reactions, some following the first dose, have been reported in patients receiving systemic quinolone therapy. Some reactions were accompanied by cardiovascular collapse, loss of consciousness, tingling, pharyngeal or facial oedema, dyspnoea, urticaria, and itching. Only a few patients had a history of hypersensitivity reactions. Serious anaphylactic reactions require immediate emergency treatment with epinephrine and other resuscitation measures, including oxygen, intravenous fluids, intravenous antihistamines, corticosteroids, pressor amines and airway management, as clinically indicated.

General

As with other antibacterial preparations, prolonged use of ciprofloxacin may result in overgrowth of non-susceptible organisms, including fungi. If super-infection occurs, appropriate therapy should be initiated. Whenever clinical judgement dictates, the patient should be examined with the aid of magnification, such as slit-lamp biomicroscopy and, where appropriate, fluorescein staining. Ciprofloxacin should be discontinued at the first appearance of a skin rash or any other sign of hypersensitivity reaction. Ophthalmic ointments may retard corneal healing and cause visual blurring. Patients should be advised not to wear contact lenses if they have signs and symptoms of bacterial conjunctivitis.

Drugs Interactions

Specific drug interaction studies have not been conducted with ophthalmic ciprofloxacin. However, the systemic administration of some quinolones has been shown to elevate plasma concentrations of theophylline, interfere with the metabolism of caffeine, enhance the effects of the oral anticoagulant, warfarin, and its derivatives, and has been associated with transient elevations in serum creatinine in patients receiving cyclosporine concomitantly.

Use in Special Populations

Pregnant Women

Category C

Reproduction studies have been performed in rats and mice at doses up to 6 times the usual daily human oral dose and have revealed no evidence of impaired fertility or harm to the foetus due to ciprofloxacin. In rabbits, as with most antimicrobial agents, ciprofloxacin (30 and 100 mg/kg orally) produced gastrointestinal disturbances resulting in maternal weight loss and an increased incidence of abortion. No teratogenicity was observed at either dose. After intravenous administration, at doses up to 20 mg/kg, no maternal toxicity was produced and no embryotoxicity or teratogenicity was observed.

There are no adequate and well controlled studies in pregnant women. **CIPLOX Eye Ointment** should be used during pregnancy only if the potential benefit justifies the potential risk to the foetus.

Lactating Women

It is not known whether topically applied ciprofloxacin is excreted in human milk. However, it is known that orally administered ciprofloxacin is excreted in the milk of lactating rats and oral ciprofloxacin has been reported in human breast milk after a single 500 mg dose.

Caution should be exercised when **CIPLOX Eye Ointment** is administered to a nursing mother.

Paediatric Patients

Safety and effectiveness of **CIPLOX Eye Ointment** in paediatric patients below the age of 2 years have not been established. Although ciprofloxacin and other quinolones may cause arthropathy in immature Beagle dogs after oral administration, topical ocular administration of ciprofloxacin to immature animals did not cause any arthropathy and there is no evidence that the ophthalmic dosage form has any effect on the weight bearing joints.

Geriatric Patients

No overall clinical differences in safety or effectiveness have been observed between the elderly and other adult patients.

Effects on Ability to Drive and Use Machines

Not known.

Undesirable Effects

The following adverse reactions (incidence) were reported in 2% of the patients in clinical studies for ciprofloxacin ophthalmic ointment: discomfort, keratopathy.

Other reactions associated with ciprofloxacin therapy occurring in less than 1% of patients included allergic reactions, blurred vision, corneal staining, decreased visual acuity, dry eye, oedema, epitheliopathy, eye pain, foreign body sensation, hyperaemia, irritation, keratoconjunctivitis, lid erythema, lid margin hyperaemia, photophobia, pruritus, and tearing.

Systemic adverse reactions related to ciprofloxacin therapy occurred at an incidence below 1% and included dermatitis, nausea and taste perversion.

Systemic Absorption of fluoroquinolones has been reported to cause following adverse effects:

The drug may cause low blood sugar and mental health related side effects. Low blood sugar levels, also called hypoglycemia, can lead to coma. The mental health side effects more prominent and more consistent across the systemic fluoroquinolone drug class are as mentioned below;

- Disturbances in attention
- Disorientation
- Agitation
- Nervousness
- Memory impairment
- Serious disturbances in mental abilities called delirium

If you experience any side effects, talk to your doctor or pharmacist or write to drugsafety@cipla.com. You can also report side effects directly via the National Pharmacovigilance Programme of India (PvPI) by calling on 1800 267 7779 (Cipla number) or you can report to PvPI on 1800 180 3024. By reporting side effects, you can help provide more information on the safety of this product.

Overdose

Not known.

Pharmacological Properties

Mechanism of Action

Ciprofloxacin has *in vitro* activity against a wide range of Gram-negative and Gram-positive organisms. The bactericidal action of ciprofloxacin results from interference with the enzyme DNA gyrase, which is needed for the synthesis of bacterial DNA.

Pharmacodynamic Properties

Microbiology

Ciprofloxacin has *in vitro* activity against a wide range of Gram-negative and Gram-positive organisms. The bactericidal action of ciprofloxacin results from interference with the enzyme DNA gyrase, which is needed for the synthesis of bacterial DNA.

Ciprofloxacin has been shown to be active against most strains of the following microorganisms both *in vitro* and in clinical infections.

Aerobic Gram-positive Microorganisms

Staphylococcus aureus (methicillin-susceptible strains)

Staphylococcus epidermidis (methicillin-susceptible strains)

Streptococcus pneumoniae

Streptococcus Viridans group

Aerobic Gram-negative Microorganisms

Haemophilus influenzae

The following *in vitro* data are available; **but their clinical significance in ophthalmologic infections is unknown**. The safety and effectiveness of ciprofloxacin in treating conjunctivitis due to these microorganisms have not been established in adequate and well controlled trials.

The following organisms are considered susceptible when evaluated using systemic breakpoints. However, a correlation between the *in vitro* systemic breakpoint and ophthalmological efficacy has not been established. Ciprofloxacin exhibits *in vitro* minimal inhibitory concentrations (MIC's) of 1 mcg/mL or less (systemic susceptible breakpoint) against most (greater than or equal to 90%) strains of the following ocular pathogens.

Aerobic Gram-positive Microorganisms

Bacillus species

Corynebacterium species

Staphylococcus haemolyticus

Staphylococcus hominis

Aerobic Gram-negative Microorganisms

Acinetobacter calcoaceticus

Enterobacter aerogenes

Escherichia coli

Haemophilus parainfluenzae

Klebsielle pneumoniae

Moraxella catarrhalis

Neisseria gonorrhoeae

Proteus mirabilis

Pseudomonas aeruginosa

Serratia marcesens

Most strains of *Burkholderia cepacia* and some strains of *Stenotrophomonas maltophilia* are resistant to ciprofloxacin as are most anaerobic bacteria, including *Bacteroides fragilis* and *Clostridium difficile*.

The minimal bactericidal concentration (MBC) generally does not exceed the minimal inhibitory concentration (MIC) by more than a factor of 2. Resistance to ciprofloxacin *in vitro* usually develops slowly (multiple-step mutation). Ciprofloxacin does not cross-react with other antimicrobial agents such as beta-lactams or aminoglycosides; therefore, organisms resistant to these drugs may be susceptible to ciprofloxacin. Organisms resistant to ciprofloxacin may be susceptible to beta-lactams or aminoglycosides.

Clinical Studies: In multi-centre clinical trials, approximately 75% of the patients with signs and symptoms of bacterial conjunctivitis and positive conjunctival cultures were clinically cured and approximately 80% had presumed pathogens eradicated by the end of treatment (Day 7).

Pharmacokinetic Properties

Systemic Absorption

Absorption studies in humans with the ciprofloxacin ointment have not been conducted, however, based on studies with ciprofloxacin solution, 0.3%, mean maximal concentrations are expected to be less than 2.5 ng/mL.

Non-Clinical Properties

Animal Toxicology or Pharmacology

Ciprofloxacin and related drugs have been shown to cause arthropathy in immature animals of most species tested following oral administration. However, a 1-month topical ocular study using immature Beagle dogs did not demonstrate any articular lesions.

Description

CIPLOX Eye Ointment contains 0.3% ciprofloxacin, a fluoroquinolone antibacterial. It is a synthetic, sterile, multiple-dose, antimicrobial for topical use.

Pharmaceutical Particulars

Incompatibilities

Not known.

Shelf-Life

As on the pack.

Packaging Information

CIPLOX Eye Ointment..... tube of 5 gm

Storage and Handling Instructions

Sterile until opened

Store in a cool place

Patient Counselling Information

- **What is CIPLOX Eye Ointment?**

  CIPLOX Eye Ointment contains 0.3% ciprofloxacin, a fluoroquinolone antibacterial. It is a synthetic, sterile, multiple-dose, antimicrobial for topical use.

- **Do not use if you have an allergy to CIPLOX Eye Ointment**

  Do not use if you have an allergy to **ciprofloxacin** or any other quinolone antibiotic or any other part of ciprofloxacin eye ointment.

- **Before you use CIPLOX Eye Ointment, tell your HCP about other medication.**

  Tell your doctor or pharmacist if you are taking or have recently taken any other medicines, including medicines obtained without a prescription. If you are using more than one type of eye medicine

- **How should I use CIPLOX Eye Ointment?**

  Always use **CIPLOX Eye Ointment** exactly as your doctor has told you. You should check with your doctor or pharmacist if you are not sure.

- **What are the possible side effects?**

  Like all medicines, **CIPLOX Eye Ointment** can cause side effects, although not everybody gets them.

  Tell your doctor or get medical help right away if you have any of the following signs or symptoms that may be related to a very bad side effect:

- Signs of an allergic reaction such as rash; hives; itching; red, swollen, blistered, or peeling skin with or without fever; wheezing; tightness in the chest or throat; trouble breathing, swallowing, or talking; unusual hoarseness; or swelling of the mouth, face, lips, tongue, or throat.
- Change in eyesight, eye pain, or very bad eye irritation.

- Eye or eyelid swelling.
- Joint pain or swelling.
- Sometimes, ciprofloxacin eye ointment causes white crystals in the eye. This does not harm the eyesight or stop the drug from working. If this happens, tell the doctor.

Others

- Blurred eyesight
- Eye irritation
- Bloodshot eyes
- Eyelid crusting
- Feeling that something is in the eye
- Bad taste in your mouth

These are not all of the side effects that may occur. If you have questions about side effects, call your doctor. Call your doctor for medical advice about side effects.

- **How should I store CIPLOX Eye Ointment?**

- Store at room temperature. Do not freeze.
- Keep all drugs in a safe place. Keep all drugs out of the reach of children and pets.
- Keep the bottle tightly closed.
- Do not use the drops after the expiry date on the bottle and the carton. The expiry date refers to the last day of that month.
- Use within one month after opening the tube

- **General information about safe and effective use of CIPLOX Eye Ointment.**

CIPLOX Eye Ointment is indicated in the treatment of external ocular infection of the eyes.

- Tell all of your healthcare providers that you use ciprofloxacin eye ointment. This includes your doctors, nurses, pharmacists, and dentists.
- Use care when driving or doing other tasks that call for clear eyesight.
- Bright lights may bother you. Wear sunglasses.
- Do not use longer than you have been told.
- Tell your doctor if you are pregnant or plan on getting pregnant. You will need to talk about the benefits and risks of using ciprofloxacin eye ointment while you are pregnant.
- Tell your doctor if you are breastfeeding. You will need to talk about any risks to your baby.

- **What are the ingredients in CIPLOX Eye Ointment?**

CIPLOX Eye Ointment contains 0.3% ciprofloxacin, a fluoroquinolone antibacterial.

- **Any other information**

Do not touch tip to any surface as this may contaminate the ointment.

Do not use the product if the imprinted carton seals have been damaged,or removed.

Details of The Manufacturer

CIPLA LTD.,

BRASSICA PHARMA PVT LTD (711221)

PLOT- NO. T-68, M.I.D.C,

TARAPUR, [W], BOISAR - 401502

District: Thane - Zone4

Details of Permission or Licence Number with Date

28A-KD-2149-A and 03/02/2017

Date of Revision

06/11/2019