SUMMARY OF PRODUCT CHARACTERISTICS

1. NAME OF THE MEDICINAL PRODUCT

Floxsol® 0.3 % eye drops, solution

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

For 5 ml:
Norfloxacin 15 mg

Excipients with notorious effect: benzalkonium chloride solution (preservative)
For a full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Eye drops, solution.

4. CLINICAL PARTICULARS

4.1. Therapeutic indications

Local antibacterial treatment of severe ocular infections (severe conjunctivitis, keratitis and corneal ulcers) caused by organisms sensitive to Norfloxacin. Consideration should be given to official guidance on the appropriate use of antibacterial agents.

4.2. Posology and method of administration

The usual posology is one to two drops 4 times a day in the infected eye(s).
If the severity of the infection requires it, one or two drops of eye drops every two hours during the day may be prescribed on the first day of treatment.

Administration mode

Local route

In local instillation

4.3. Contraindications

This medicine should not be used in the following cases:

- Hypersensitivity to one of the components,
- Hypersensitivity to quinolones.

In general, this medicine should not be used during lactation.

4.4. Special warnings and precautions for use

- Do not inject nor swallow.
- The eye drops should not be injected in peri- nor intra-ocular routes.
- The appearance of a resistance or selection of some resistant strains is possible, especially in long term treatment.
- A cross-resistance between quinolones might occur.
- Treatment should be stopped as soon as first signs of skin rash or hypersensitivity reaction appear.
- When instilling, do not touch the eye with the nozzle,
- Wearing contact lenses is not recommended for eye infections. However, if the physician deems the use of contact lenses to be possible, the patient should be informed as follows: Avoid contact with soft contact lenses. Remove contact lenses before application and wait at least 15 minutes before reapplying.
- In case of simultaneous administration of other eye drops, an interval of 15 minutes

should be respected.
This medicine contains 1.2 microgram of benzalkonium chloride per drop.
Benzalkonium chloride is known to cause eye irritation, symptoms of dry eye syndrome, and can affect the tear film and surface of the cornea. Should be used with caution in patients with dry eye and those at risk of corneal damage.
Patients should be monitored during prolonged use.
Benzalkonium chloride may be absorbed by soft contact lenses and change their colour.
Patients should be instructed to remove contact lenses before using this medication and to wait at least 15 minutes before reinsertion.

4.5. Interaction with other medicinal products and other forms of interaction

No interaction studies have been conducted with eye drops solution containing Norfloxacin.

4.6. Fertility, Pregnancy and lactation

Pregnancy
Taking into account the small administered doses, the use of these eye drops can be considered during pregnancy, if needed.
With Norfloxacin administered by systemic route, studies performed on the animal have not shown any teratogenic effect, and clinical data are still insufficient.
Articular disorders have been described in children treated with quinolones but no case of secondary arthropathy after *in utero* exposure has been reported.

Lactation
Norfloxacin, when administered by general route, is secreted into mother's milk. As a consequence, with the lack of data after ocular administration, it is advised not to use these eye drops during the lactation period.
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4.7. Effects on ability to drive and use machines

Not applicable.

4.8. Undesirable effects

Most frequently encountered: burning sensations or local tingling point.
More rarely: conjunctival hyperrheaemia, chemosis, photophobia, bitter taste after instillation.
Very rarely: corneal deposits

Due to benzalkonium chloride, risk of contact eczema and of irritation.

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 the national reporting system.

4.9. Overdose

No overdose has been reported with eye drops solution containing Norfloxacine.

5. PHARMACOLOGICAL PROPERTIES

5.1. Pharmacodynamic properties

Pharmacotherapeutic group:
ANTIBIOTICS OF THE QUINOLONE FAMILY, ATC Code: S01AE02
Norfloxacin inhibits the synthesis of bacterial deoxyribonucleic acid. It is bactericidal

SPECTRUM OF ANTIBACTERIAL ACTIVITY
Critical concentrations separate susceptible strains from intermediate susceptible strains, and the latter from resistant strains**.** S ≤ 1 mg/l et R > 2 mg/l

The prevalence of acquired resistance may vary with geography and time for some species. It is therefore useful to have information on the prevalence of local resistance, especially for the treatment of severe infections. These data can only provide guidance on the probabilities of the susceptibility of a bacterial strain to this antibiotic.
The critical concentrations discriminate the sensitive strains from the strains of intermediate sensitivity, and the latter from the resistant strains.

Categories	**Frequency of acquired resistance in Europe, as indication**
SENSITIVES SPECIES	
Gram positive Aerobics	
Staphylococcus meti-S	0 - 16 %
Gram negative Aerobics	
Acinetobacter baumannii	50 - 88 %
Citrobacter freundii	0 - 36 %
Citrobacter koseri	0 - 12 %
Enterobacter aerogenes	0 - 65 %
Enterobacter cloacae	0 - 27 %
Escherichia coli	0 - 15 %
Klebsiella oxytoca	0 - 13 %
Klebsiella pneumoniae	0 - 15 %
Morganella morganii	0 - 15 %
Neisseria gonorrhoeae	
Proteus mirabilis	0 - 17 %
Proteus vulgaris	
Providencia rettgeri	
Providencia stuartii	0 - 71 %
Pseudomonas aeruginosa	0 - 45 %
Serratia marcescens	0 - 30 %
RESISTANT SPECIES	
Gram positive Anaerobics	
Enterococcus	
Staphylococcus meti-R *	
Anaerobics	
Gram positive anaerobic bacteria except some *Clostridium perfringens* strains	
All Gram negative anaerobic bacteria	

* The frequency of methicillin resistance is about 30-50% of all staphylococci and occurs mainly in hospital settings.
Resistance to Norfloxacin due to spontaneous mutations is of the order of 10^{-7} to 10^{-8} cells.
This spectrum corresponds to that of systemic forms of Norfloxacin. With local pharmaceutical presentations, the concentrations obtained *in situ* are much higher than plasma concentrations.
Some uncertainties remain on the kinetics of the *in situ* concentrations, on the local physico-chemical conditions that may modify the activity of the antibiotic and on the stability of the product *in situ*.

5.2. Pharmacokinetic properties

In animals, one hour after the administration of a drop of this eye drop in the conjunctival cul-de-sac, the lacrimal concentration of this eye drop is higher than the MIC of the main germs encountered in eye infections.
After administration of this eye drop in a single or repeated dose, the antibiotic could not be found in the blood within 3 hours after instillation.

5.3. Preclinical safety data

Not applicable.

6. PHARMACEUTICAL PARTICULARS

6.1. List of excipients

Sodium chloride, disodium edetate, benzalkonium chloride solution, glacial acetic acid, water for injections.

6.2. Incompatibilities

Not applicable.

6.3. Shelf life

Before opening: 36 months
After opening: the medication can be stored for a maximum of 15 days

6.4. Special precautions for storage

Store at room temperature (below 30°C).
Keep the vial in the outer packaging.

6.5. Nature and contents of container

The bottle is made of clear low density polyethylene.
Plastic cap of white low density polyethylene.
Bottle of 5 ml.

6.6. Special precautions for disposal and other handling

Bottle opening:

1. With the spike: tighten the cap on the nozzle.
2. The spike in the cap will pierce the tip of the bottle.

3. Dispense drops with gentle pressure. Replace the cap after every use.

7. CATEGORY OF DISTRIBUTION:

☐ Over-the counter medicine ☒ Prescription only medicine

8. MARKETING AUTHORISATION HOLDER:

Exphar sa
Zoning Industriel de Nivelles Sud, zone II – Av. Thomas Edison 105 – 1402 Thines (Belgium)

Phone +32 (0)67 68 84 05
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9. MANUFACTURER:

AHLCON PARENTERALS (INDIA) LIMITED
SP-918, Phase-III, Bhiwadi-301019,
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10. UPDATE DATE:

September 2020