3.5% Viscous Topical Ocular Anesthetic Gel
Preservative Free

- Onset of action between 20 to 60 seconds and persists from 5 to 30 minutes
- Viscous gel formulation for extended localized contact
- Only FDA-approved topical lidocaine available for ocular procedures
- Store at room temperature: 15° to 25° C (59° to 77° F)
- Physiological pH: 5.5 to 7.5
- Water soluble

Akten® (lidocaine hydrochloride ophthalmic gel) 3.5%

- Each mL contains:
  - 35 mg of lidocaine hydrochloride;
  - None;
  - Hypromellose, Sodium Chloride, and Water for Injection. The pH may be adjusted to 5.5 to 7.5 with Hydrochloric Acid and/or Sodium Hydroxide.

- Store at 15° to 25° C (59° to 77° F). Keep container closed and protected from light in the original carton until use. Discard after use.

Akten® is indicated for ocular surface anesthesia during ophthalmologic procedures.

IMPORTANT SAFETY INFORMATION

Akten® has no known contraindications.

Most common adverse reactions are conjunctival hyperemia, corneal epithelial changes, headache, and burning upon instillation.

To order products call 800-932-5676 or fax 800-943-3694 • www.aktensd.com

NOT FOR PRESCRIBING PURPOSES. PLEASE REFER TO PACKAGE INSERT FOR FULL PRESCRIBING INFORMATION.
Akten® (lidocaine hydrochloride ophthalmic gel) 3.5%

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use Akten® safely and effectively. See full prescribing information for Akten®.

Akten® (lidocaine hydrochloride ophthalmic gel) 3.5%

Initial U.S. Approval: 1972

INDICATIONS AND USAGE

Akten® is a local anesthetic indicated for ocular surface anesthesia during ophthalmologic procedures (1)

—INDICATIONS AND USAGE—

Akten® is a local anesthetic indicated for ocular surface anesthesia during ophthalmologic procedures.

—DOSE AND ADMINISTRATION—

The recommended dose of Akten® is 2 drops applied to the ocular surface in the area of the planned procedure. Additional anesthesia may be reapplied as needed (2)

—DOSE FORMS AND STRENGTHS—

Akten® 3.5% (35 mg/mL) Ophthalmic Gel (3)

CONTRAINdications

None (4)

—WARNINGS AND PRECAUTIONS—

• Not for Injection (5)
• Corneal Opacification. Prolonged use of a topical ocular anesthetic may produce permanent corneal opacification and ulceration with accompanying visual loss (5)

—ADVERSE REACTIONS—

Most common adverse reactions are conjunctival hyperemia, corneal epithelial changes, headache, and burning upon instillation (6)

To report SUSPECTED ADVERSE REACTIONS, contact Akorn at 1-800-932-5676 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

Revised: 09/2013

FULL PRESCRIBING INFORMATION: CONTENTS*

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FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

Akten® is indicated for ocular surface anesthesia during ophthalmologic procedures.

2 DOSAGE AND ADMINISTRATION

The recommended dose of Akten® is 2 drops applied to the ocular surface in the area of the planned procedure. Akten® may be reapplied to maintain anesthetic effect.

3 DOSAGE FORMS AND STRENGTHS

Akten® Ophthalmic Gel, 3.5% contains 35 mg per mL of lidocaine hydrochloride for topical ophthalmic administration.

4 CONTRAINDICATIONS

None

5 WARNINGS AND PRECAUTIONS

• Not for injection
• Corneal Opacification. Prolonged use of a topical ocular anesthetic may produce permanent corneal opacification and ulceration with accompanying visual loss.

6 ADVERSE REACTIONS

Most common adverse reactions are conjunctival hyperemia, corneal epithelial changes, headache, and burning upon instillation.

7 USE IN SPECIFIC POPULATIONS

8 CLINICAL STUDIES

9 CLINICAL PHARMACOLOGY

10 OVERDOSAGE

11 DESCRIPTION

Akten® (lidocaine hydrochloride ophthalmic gel) 3.5% is a sterile, preservative-free, single patient use ophthalmic gel preparation for topical ocular anesthesia. Lidocaine hydrochloride is designated chemically as acetonide, 2-(diethylamino)-N-(2,6-dimethylphenyl)monohydrochloride with a molecular formula of C25H29NO2Cl and molecular weight of 270.8. The structural formula of the active ingredient is:

\[ \text{CH}_3 \text{CH}_2 \text{CO} \text{-CH}_2 \text{N} \text{H} - \text{CO} \text{-CH}_3 \]

Akten® contains 35 mg of lidocaine hydrochloride per mL as the active ingredient. Akten® also contains Hyprolomellose, Sodium Chloride, and Water for Injection as inactive ingredients in the 1 mL tube configuration. Akten® contains Hyprolomellose, Sodium Chloride, and Purified Water as inactive ingredients in the 5 mL in the 10 mL bottle configuration. The pH may be adjusted to 5.5 to 7.5 with Hydrochloric Acid and/or Sodium Hydroxide.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Akten® is a local anesthetic agent that stabilizes the neuronal membrane by inhibiting the ionic fluxes required for the initiation and conduction of impulses, thereby effecting local anesthetic action. Anesthesia generally occurs between 20 seconds to 1 minute and persists for 5 to 30 minutes.

12.3 Pharmacokinetics

Lidocaine may be absorbed following topical administration to mucous membranes. Its rate and extent of absorption depend upon various factors such as concentration, the specific site of application, viscosity of the agent, and duration of exposure.

The plasma binding of lidocaine is dependent on drug concentration, and the fraction bound decreases with increasing concentration. At concentrations of 1 to 4 mg of free base per mL, 60 to 80 percent of lidocaine is protein bound. Binding is also dependent on the plasma concentration of the alpha-1 acid glycoprotein.

Lidocaine is metabolized rapidly by the liver, and metabolites and unchanged drug are excreted by the kidneys. Biotransformation includes oxidative N-dealkylation, ring hydroxylation, cleavage of the amide linkage, and conjugation. N-dealkylation, a major pathway of biotransformation, yields the metabolites monoethoxylglycinexilide and glycinexilide. The pharmacologic/toxicologic actions of these metabolites are similar to, but less potent than, those of lidocaine. Approximately 90% of lidocaine administered is excreted in the form of various metabolites, and less than 10% is excreted unchanged. The primary metabolite in urine is a conjugate of 4-hydroxy-2, 6-dimethylaniline.

Studies of lidocaine metabolism following intravenous bolus injections have shown that the elimination half-life of this agent is typically 1.5 to 2 hours. Because of the rate at which lidocaine is metabolized, any condition that affects liver function may alter lidocaine kinetics. The half-life may be prolonged twofold or more in patients with liver dysfunction. Renal dysfunction does not affect lidocaine kinetics but may increase the accumulation of metabolites.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Long-term studies in animals have not been performed to evaluate the carcinogenic potential of Akten®.

14 CLINICAL STUDIES

The effect of Akten® on ocular anesthesia was studied in a multi-center, randomized, controlled, double-blind study. A total of 209 subjects were enrolled, with 54, 51, 53, and 51 subjects randomized to the sham, Akten® 1.5%, Akten® 2.5%, and Akten® 3.5% groups, respectively. Ocular anesthesia was achieved within 5 minutes of anesthetic application by 47% of subjects (92%) in the Akten® 3.5% group. The mean time to anesthesia onset ranged from 20 seconds to 5 minutes and was not affected by Akten® dose. The mean time to anesthesia onset was approximately 60 seconds, with a median onset time of 40 seconds for the Akten® 3.5% group. Among the subjects in the Akten® groups who achieved anesthesia within 5 minutes, approximately 90% had achieved anesthesia within 60 seconds of application. The duration of anesthesia generally ranged from approximately 5 minutes to 30 minutes, with mean anesthesia durations of approximately 15 minutes for the Akten® 3.5% group. Approximately 84% of the subjects in the Akten® 3.5% group experienced anesthesia for at least 5 minutes, approximately 55% of subjects experienced anesthesia for 10 minutes or longer and 27% experienced anesthesia for 15 minutes or longer. The anesthetic effect of additional applications of Akten® has not been evaluated.

16 HOW SUPPLIED/STORAGE AND HANDLING

Akten® (lidocaine hydrochloride ophthalmic gel) 3.5% is supplied as a clear gel for single patient use as follows:

NDC 17 47 8-7 9 2 -01 1 mL fill in a white polyfoil tube*

NDC 17 47 8-7 9 2 -2 5 Package of 25 units of 1 mL fill in a white polyfoil tube* (NDC 17 47 8-7 9 2 -01)

NDC 17 47 8-7 9 2 -1 0 5 mL fill in a 10 mL natural, round plastic dropper bottle.

*Manufactured in Switzerland

Manufactured for: Akorn, Inc. Lake Forest, IL 60045

Patent Pending

AEOON