HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use VIZZ™ safely and effectively. See full prescribing information for VIZZ.

VIZZ (aceclidine ophthalmic solution) 1.44%, for topical ophthalmic use
Initial U.S. Approval: 2025

----------INDICATIONS AND USAGE----------
VIZZ is a cholinergic agonist indicated for the treatment of presbyopia in adults (1).

----------DOSAGE AND ADMINISTRATION----------
Instill one drop in each eye, wait 2 minutes and instill a second drop in each eye once daily (2).

----------DOSAGE FORMS AND STRENGTHS----------
Ophthalmic solution: aceclidine 1.44% in a single-dose vial (3).

----------CONTRAINDICATIONS----------
None.

----------WARNINGS AND PRECAUTIONS----------
- Blurred Vision: Patients may experience temporary dim or dark vision after instillation. Do not drive or operate machinery if vision is not clear (e.g., blurred vision). Exercise caution in night driving and other hazardous activities in poor illumination (5.1).
- Risk of Retinal Tear/Detachment: Rare cases of retinal tears and detachments have been reported with miotics. Examination of the retina is advised in all patients prior to initiation of therapy. Patients should be advised to seek immediate medical care with sudden onset of flashing lights, floaters, or vision loss (5.2).
- Iritis: Caution is advised in patients with a history of iritis (5.3).

----------ADVERSE REACTIONS----------
The most common adverse reactions were instillation site irritation (20%), dim vision (16%), and headache (13%) (6.1).

To report SUSPECTED ADVERSE REACTIONS, contact LENZ Therapeutics, Inc. at 1-888-711-LENZ or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 1/2026

FULL PRESCRIBING INFORMATION: CONTENTS*

1 INDICATIONS AND USAGE
2 DOSAGE AND ADMINISTRATION
2.1 Recommended Dosage
2.2 Administration Instructions
3 DOSAGE FORMS AND STRENGTHS
4 CONTRAINDICATIONS
5 WARNINGS AND PRECAUTIONS
5.1 Blurred Vision
5.2 Risk of Retinal Tear/Detachment
5.3 Iritis
5.4 Hypersensitivity
5.5 Use with Contact Lenses
5.6 Potential for Eye Injury or Contamination
6 ADVERSE REACTIONS
6.1 Clinical Trials Experience
8 USE IN SPECIFIC POPULATIONS
8.1 Pregnancy
8.2 Lactation
8.4 Pediatric Use
8.5 Geriatric Use
10 OVERDOSAGE
11 DESCRIPTION
12 CLINICAL PHARMACOLOGY
12.1 Mechanism of Action
12.3 Pharmacokinetics
13 NONCLINICAL TOXICOLOGY
13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
14 CLINICAL STUDIES
16 HOW SUPPLIED/STORAGE AND HANDLING
16.1 How Supplied
16.2 Storage and Handling
17 PATIENT COUNSELING INFORMATION

* Sections or subsections omitted from the full prescribing information are not listed.

FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

VIZZ is indicated for the treatment of presbyopia in adults.

2 DOSAGE AND ADMINISTRATION

2.1 Recommended Dosage

Instill one drop in each eye, wait 2 minutes and instill a second drop in each eye once daily from the same single-dose vial.

2.2 Administration Instructions

Contact lenses should be removed prior to the instillation of VIZZ and may be reinserted 10 minutes after instillation.

If more than one topical ophthalmic product is being used, the products should be administered at least 5 minutes apart.

To open vial, twist off top *[see How Supplied/Storage and Handling (16.1)]*.

Discard the opened single-dose vial after use.

3 DOSAGE FORMS AND STRENGTHS

VIZZ is a clear to opalescent and colorless to slightly yellow ophthalmic solution containing 1.44% of aceclidine in a single-dose vial.

4 CONTRAINDICATIONS

None.

5 WARNINGS AND PRECAUTIONS

5.1 Blurred Vision

Miotics may cause accommodative spasm. Do not drive or operate machinery if vision is not clear (e.g., blurred vision).

Patients may experience temporary dim or dark vision. Exercise caution in night driving and other hazardous activities in poor illumination.

5.2 Risk of Retinal Tear/Detachment

Rare cases of retinal tear and detachment have been reported with miotics when used in susceptible individuals and those with pre-existing retinal disease. Examination of the retina is advised in all patients prior to the initiation of treatment with VIZZ. Patients should be advised to seek immediate care with sudden onset of flashing lights, floaters, or vision loss.

5.3 Iritis

Sequelae of ocular inflammation, i.e., adhesions (synechiae) between the iris and the lens, may be exacerbated with miotic use in patients with a known history of iritis.

5.4 Hypersensitivity

VIZZ is not recommended for use in patients with a known hypersensitivity to aceclidine or any other ingredient in VIZZ.

5.5 Use with Contact Lenses

Contact lenses should be removed prior to the instillation of VIZZ and may be reinserted 10 minutes after instillation.

5.6 Potential for Eye Injury or Contamination

To prevent eye injury or contamination, care should be taken to avoid touching the single-dose vial to the eye or to any other surface.

6 ADVERSE REACTIONS

6.1 Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

VIZZ dosed once daily was evaluated for safety and efficacy in 466 participants with presbyopia in 2 randomized, double-masked, controlled phase 3 studies for 42 days (CLARITY-1, NCT05656027 and CLARITY-2, NCT05728944). VIZZ dosed once daily was also evaluated for long term safety in 217 participants with presbyopia in a separate randomized, double-masked, controlled phase 3 study (CLARITY-3, NCT05753189) for a 6-month duration.

The most common reported adverse reactions of participants were instillation site irritation (20%), dim vision (16%), and headache (13%). Adverse reactions reported in > 5% of participants were conjunctival hyperemia (8%) and ocular hyperemia (7%). The majority of adverse reactions were mild, transient, and self-resolving.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Risk Summary

There are no adequate and well controlled studies of VIZZ administration in pregnant women to inform a drug associated risk. In animal reproduction studies, oral administration of aceclidine to pregnant rats and rabbits throughout organogenesis and lactation did not produce adverse maternal, fetal or neonatal effects at clinically relevant doses.

Data

Animal Data

In embryofetal development studies, oral administration of aceclidine to pregnant rats and rabbits throughout organogenesis produced no maternal toxicity, skeletal anomalies, nor reduction in fetal body weight at 1.5 mg/kg/day (approximately 110-fold and 70-fold the human plasma exposure to the metabolite, 3-quinuclidinol, in rats and rabbits, respectively, at the MRHOD, assuming administration of 2 drops/eye/day).

In a pre-/postnatal development study in rats, oral administration of aceclidine during organogenesis through lactation produced no adverse maternal, fetal, or neonatal effects at doses up to 1.5 mg/kg/day (approximately 110-fold higher than the MHOD based on body surface area, assuming administration of 2 drops/eye/day).

8.2 Lactation

Risk Summary

There is no information regarding the presence of VIZZ or its metabolite in human or animal milk, the effects on breastfed infants or the effects on milk production to inform the risk of VIZZ to an infant during lactation.

Systemic levels of aceclidine and its metabolites following topical ocular administration are low *[see Clinical Pharmacology (12.3)]*, and it is not known whether measurable levels of aceclidine or its metabolites would be present in human milk following topical ocular administration.

The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for VIZZ and any potential adverse effects on the breastfed child from VIZZ or from the underlying maternal condition.

8.4 Pediatric Use

Presbyopia does not occur in the pediatric population.

8.5 Geriatric Use

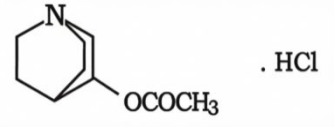
No overall differences in safety or effectiveness of VIZZ have been observed between patients 65 years of age and older and younger adult patients.

10 OVERDOSAGE

Systemic toxicity following topical ocular administration of miotics is rare, but occasionally patients who are sensitive may develop increased salivation, sweating, gastrointestinal overactivity, and slowing of the pulse. Accidental ingestion can produce sweating, salivation, nausea, tremors, slowing of the pulse, and a decrease in blood pressure. In moderate overdosage, spontaneous recovery is to be expected and is aided by intravenous fluids to compensate for dehydration.

11 DESCRIPTION

VIZZ (aceclidine ophthalmic solution) 1.44% is a cholinergic muscarinic receptor agonist supplied as a sterile, clear to opalescent, colorless to slightly yellow, and viscous ophthalmic solution containing 1.75% of aceclidine hydrochloride (equivalent to 1.44% aceclidine).



The chemical names for aceclidine hydrochloride are: 1) 3-Acetoxyquinuclidine Hydrochloride; 2) 3-Quinuclidinyl Acetate Hydrochloride. Its molecular weight is 205.68 g/mol and its molecular formula is $C_9H_{15}NO_2 \cdot HCl$.

Each mL of VIZZ contains aceclidine hydrochloride 1.75% (17.82 mg) as the active ingredient. Inactive ingredients in the ophthalmic solution are: polysorbate 80, mannitol, hypromellose, edetate disodium dihydrate, sodium citrate dihydrate, water for injection, and may also include hydrochloric acid and/or sodium hydroxide for pH adjustment to between 4.5 and 5.5, if necessary. VIZZ does not contain antimicrobial preservatives.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Aceclidine is a cholinergic muscarinic agonist that stimulates muscarinic receptors located on smooth muscles. VIZZ is a predominantly pupil selective miotic that interacts with the iris with minimal ciliary muscle stimulation. VIZZ causes contraction of the iris sphincter muscle, resulting in a pinhole effect that extends depth of focus to improve vision.

12.3 Pharmacokinetics

Aceclidine undergoes hydrolysis in the eye to acetate and 3-quinuclidinol (3-Q) with one mole of aceclidine hydrolyzed to one mole of 3-Q. Pharmacokinetic studies are performed on the analysis of 3-Q, which is a metabolite formed from the hydrolysis of aceclidine.

Systemic exposure of aceclidine hydrochloride was evaluated in 16 subjects with presbyopia following once daily VIZZ administration (one drop of VIZZ in each eye followed by a second drop in each eye two minutes later) for 8 days. The mean C_{max} and AUC_{0-t} values for 3-Q after Day 8 dosing were 2.114 ng/mL and 4.899 hr*ng/mL, respectively.

There was little to no accumulation of 3-Q after repeat once daily dosing of VIZZ. After 8 days, the mean (SD) $RAUC_{0-t}$ and RC_{max} values were 1.189 (0.770) and 0.996 (0.314), respectively. $T_{1/2}$ could not be estimated at any timepoint due to the limited amount of quantifiable 3-Q concentrations after ocular dosing.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis

Long term studies in animals have not been performed to evaluate carcinogenic potential.

Mutagenesis

Aceclidine did not show any potential to cause genetic toxicity in a series of studies that included: 1) bacterial assays (Salmonella and E. coli) for reverse gene mutations; 2) an in vitro chromosome aberration assay in cultured human peripheral blood lymphocytes; and 3) an in vivo chromosome aberration assay (micronucleus test) in mice.

Impairment of Fertility

Oral administration of aceclidine produced no adverse effect on fertility in rats at doses up to 1.5 mg/kg/day (approximately 25 times the MRHOD based on body surface area).

14 CLINICAL STUDIES

The efficacy of VIZZ for the treatment of presbyopia was demonstrated in two, randomized, double-masked, controlled studies, CLARITY-1 and CLARITY-2. A total of 466 participants aged 45 to 75 years old with presbyopia were randomized. Participants had a refractive range from -4.00 to +1.00 D sphere, with astigmatism up to 2.00 D, and a spherical equivalent no more myopic than -4.00 D. Both studies included participants who were post-refractive surgery and/or pseudophakic.

Participants were instructed to instill 2 drops of VIZZ (or control) in each eye once daily, one drop in each eye followed by a second drop in each eye two minutes later. Participants were treated for 42 days. Ophthalmic efficacy assessments were conducted on Day 1, Day 15, and Day 28 of the study at various timepoints through 10 hours post dose.

In each study, the proportion of participants gaining 3 lines or more in high contrast, distance corrected, near visual acuity (DCNVA) at 40 cm, without loss of 1 line or more (≥5 letters) of distance corrected, distance visual acuity (DCDVA) at 4 meters was statistically significantly greater in the VIZZ group compared to the control group at Day 1, Hour 3.

Table 1. Primary Efficacy Endpoint from CLARITY-1 and CLARITY-2 Studies Day 1, at 3 Hours Post Dose (FAS Population)

	CLARITY-1			CLARITY-2		
	VIZZ N=157	Brimonidine N=156	p-value	VIZZ N=77	Vehicle N=76	p-value
Proportion of participants gaining 3-lines or more in DCNVA at 40cm, without losing 1 line or more (≥5 letters) of DCDVA at 4m at Day 1, at 3 hours	65%	12%	p<0.01	71%	8%	p<0.01

Figure 1 and Figure 2 demonstrate the onset of the VIZZ effect on presbyopia, from 30 minutes post dose and lasting 10 hours.

Figure 1 **Percentage of Participants Achieving 3 Lines or More Improvement in High Contrast, Monocular Near Vision (DCNVA at 40 cm) and No Loss of 1 or More Lines (DCDVA at 4 m) on Day 1 at All Measured Time Points (CLARITY-2, FAS population with Observed data)**

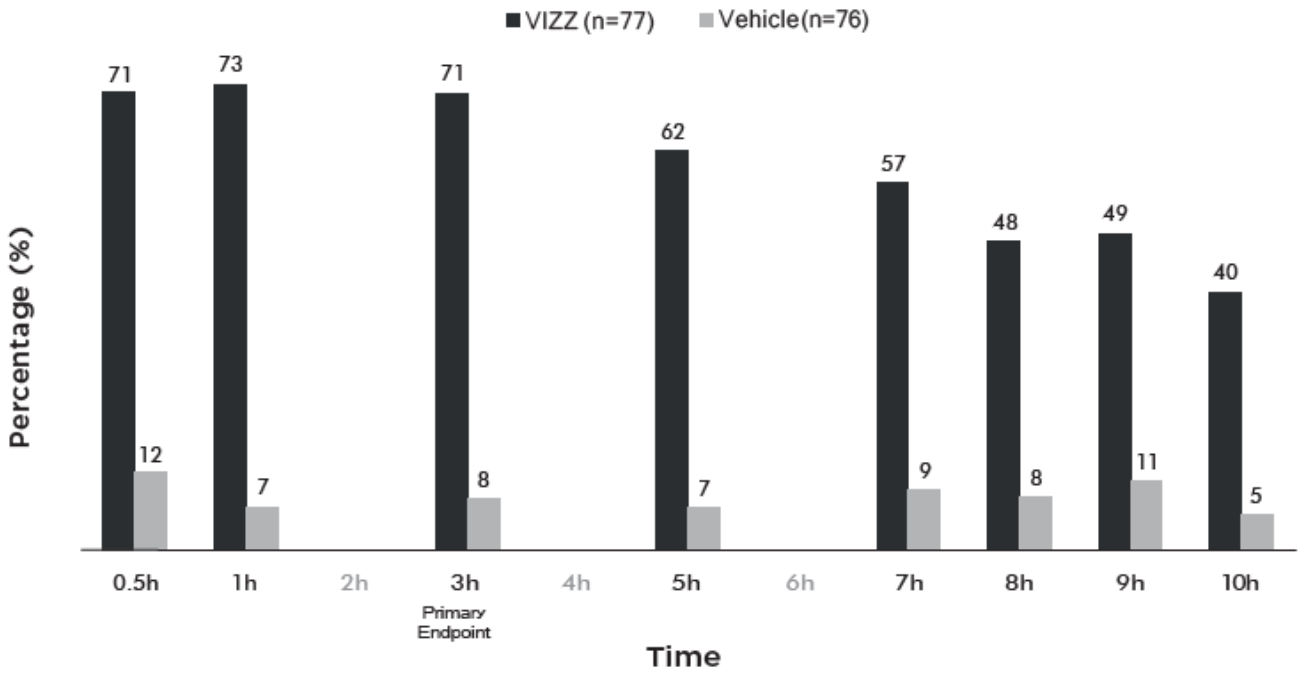
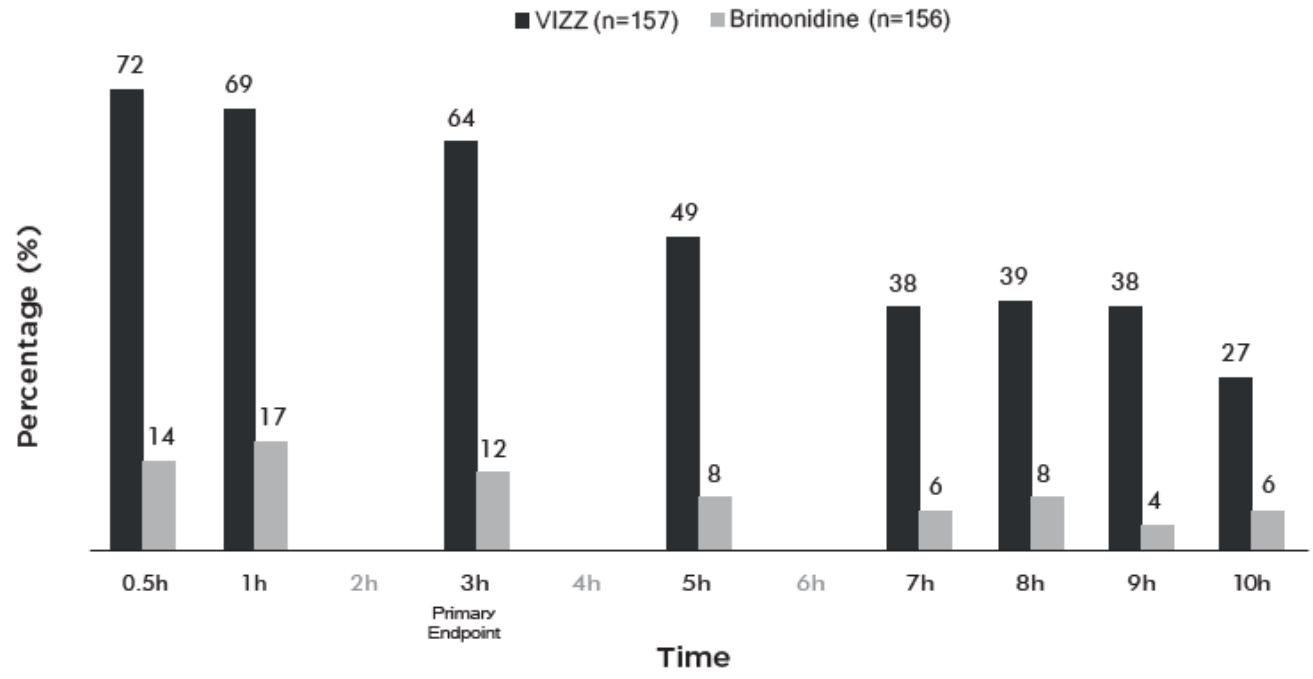


Figure 2 **Percentage of Participants Achieving 3 Lines or More Improvement in High Contrast, Monocular Near Vision (DCNVA at 40 cm) and No Loss of 1 or More Lines (DCDVA at 4 m) on Day 1 at All Measured Time Points (CLARITY-1, FAS population with Observed data)**



16 HOW SUPPLIED/STORAGE AND HANDLING

16.1 How Supplied

VIZZ (aceclidine ophthalmic solution) 1.44% is supplied as a sterile, clear to opalescent, colorless to slightly yellow, and viscous ophthalmic solution in configurations of 5 single-dose vials. VIZZ does not include antimicrobial preservatives.

Each single-dose vial is comprised of transparent low-density polyethylene (LDPE).

5 single-dose vials are packaged in a foil pouch.

VIZZ is supplied in:

NDC Number	Description	Vial Configuration
84226-100-11	carton box of 25 single-dose vials (5 pouches x five vials of 0.4 mL each)	
84226-100-21	carton box of 25 single-dose vials (5 pouches x five vials of 0.25 mL each)	

16.2 Storage and Handling

Store refrigerated at 36°F to 46°F (2°C to 8°C). Do not freeze.

When stored in refrigerated conditions, VIZZ can be used until the expiration date.

Once pouch or vial(s) are removed from refrigeration, VIZZ may be stored at room temperature [up to 77°F (25°C)] but must be used within 30 days.

Discard the opened single-dose vial after use.

During shipment, VIZZ may be maintained at temperatures up to 104°F (40°C) for a period not exceeding 8 days.

17 PATIENT COUNSELING INFORMATION

Night Driving

Advise patients that they may experience temporary dim or dark vision. Advise patients to exercise caution with night driving and when hazardous activities are undertaken in poor illumination *[see Warnings and Precautions (5.1)]*.

Blurred Vision

Temporary problems when changing focus between near and distant objects may occur. Advise patients not to drive or use machinery if vision is not clear (e.g., blurred vision) *[see Warnings and Precautions (5.1)]*.

When to Seek Physician Advice

Advise patients to seek immediate medical care with sudden onset of flashing lights, floaters, or vision loss *[see Warnings and Precautions (5.2)]*.

Contact Lens Wear

Advise patients to remove contact lenses prior to the instillation of VIZZ. Wait 10 minutes after instillation before reinserting their contact lenses *[see Warnings and Precautions (5.5)]*.

Potential for Eye Injury or Contamination

Advise patients to avoid touching the tip of the single-dose vial to the eye or to any other surface in order to prevent eye injury or contamination *[see Warnings and Precautions (5.6)].* Advise patients to discard the opened single-dose vial and any remaining contents after use.

Concomitant Topical Ocular Therapy

Advise patients if more than one topical ophthalmic medication is being used, the medicines should be administered at least 5 minutes apart *[see Dosage and Administration (2)]*.

U.S. Patent Nos.: 11,179,328, 10,052,313, 9,844,537, 12,128,036, and 12,414,942.

VIZZ is a registered trademark of LENZ Therapeutics, Inc.
Manufactured for: LENZ Therapeutics, Inc., 201 Lomas Santa Fe Drive, Suite 300, Solana Beach, CA 92075, USA