Iowa Medicaid
IOWA HHS

PDL DRUG REVIEW

Proprietary Name: Verkazia®
Common Name: cyclosporine ophthalmic emulsion
PDL Category: Ophthalmics

Comparable Products	Preferred Drug List Status
Cromolyn Sodium (opth)	Preferred
Alomide	Non-Preferred

Summary

Pharmacology/Usage: Cyclosporine, the active ingredient of Verkazia®, is a calcineurin inhibitor immunosuppressant agent when administered systemically. Following ocular administration, cyclosporine is thought to act by blocking the release of pro-inflammatory cytokines such as IL-2. The exact mechanism of action for its approved indication is not known.

Indication: For the treatment of vernal keratoconjunctivitis (VKC) in children and adults.

There is no pregnancy category for this medication; however, the risk summary indicates that there are no adequate and well-controlled studies of Verkazia® administration in pregnant women to inform a drug-associated risk. The safety and efficacy of use in the pediatric population younger than 4 years of age have not been established.

Dosage Form: Ophthalmic emulsion: 0.1% (1mg/ml).

Recommended Dosage: Gently shake the single-dose vial several times to obtain a uniform, white, opaque emulsion before use.

Contact lenses should be removed before applying Verkazia® and may be reinserted 15 minutes after administration.

Instill one drop, 4 times daily (morning, noon, afternoon, and evening) into each affected eye. Treatment can be discontinued after signs and symptoms are resolved and can be reinitiated if there is a recurrence.

If a dose is missed, treatment should be continued as normal, at the next scheduled administration.

If more than one topical ophthalmic product is being used, administer the eye drops at least 10 minutes apart to avoid diluting products. Administer Verkazia® 10 minutes prior to using any eye ointment, gel, or other viscous eye drops.

Drug Interactions: There are no drug interactions listed with this product.

Box Warning: There is no box warning listed with this product.

Common Adverse Drug Reactions: *Listed % incidence for adverse drug reactions= reported % incidence for drug (Verkazia®). There was no placebo data to compare with in the prescribing information.* The most frequently reported adverse events included eye pain (12%), eye pruritus (8%), ocular discomfort (6%), visual acuity reduced (5%), ocular hyperemia (4%), cough (5%), headache (4%), and upper respiratory tract infection (2%).

Contraindications: There are no contraindications listed with this product.

Manufacturer: Santen Incorporated.

Analysis: The safety and efficacy of Verkazia® for the treatment of VKC were assessed in two randomized, multicenter, double-masked, vehicle-controlled clinical trial (VEKTIS and NOVATIVE study). In the VEKTIS study, patients with severe VKC were randomized to Verkazia® QID, Verkazia® BID or vehicle for the first 4 months (period 1). Similarly, in the NOVATIVE study, patients with moderate to severe VKC were randomized to QID Verkazia® or QID of cyclosporine ophthalmic emulsion 0.5mg/ml and vehicle group for the first 1 month (period 1). In both studies, patients randomized to the vehicle group were switched to Verkazia® (QID or BID) from month 4 to month 12 in the VEKTIS study and to cyclosporine ophthalmic emulsion 0.5mg/ml QID or 1mg/ml from month 1 to month 4 in the NOVATIVE study (period 2).

A total of 168 patients were enrolled in the VEKTIS study and 118 were enrolled in the NOVATIVE study. Patients' age ranged from 4 through 17 years (mean age 9 years) in the VEKTIS study and 4 through 21 years (mean age 9 years) in the NOVATIVE study, with most patients being between 4 and 11 years of age (76% in VEKTIS and 80% in NOVATIVE) and male (79% in VEKTIS and 81% in NOVATIVE). Most of the patients had both limbal and tarsal forms of VKC (65% in VEKTIS and 74% in NOVATIVE). In both studies, patients had experienced VKC for a mean of 3 years prior to enrollment and all patients had a history of at least one recurrence of VKC in the year prior to study entry.

In the VEKTIS study, key efficacy evaluation was based on the change in corneal fluorescein staining (CFS) score and in itching score over 4 months. Results are presented in the tables below, which were adapted from the prescribing information.

This first table includes the efficacy results of the mean change in keratitis score from baseline at each visit in the full analysis set. The CFS score was measured at each month using a 5-point scale (0=no stain and 5-more stain). Note that the 95% confidence interval results favors Verkazia® QID vs vehicle.

Visit	Vehicle (N=58)	Verkazia® QID (N=56)	Verkazia® BID (N=54)
Baseline	4.1	4.3	4.1
Month 1	-0.8	-1.4	-1.3
Month 2	-0.9	-1.8	-1.8
Month 3	-1.2	-2.3	-2.0
Month 4	-1.2	-2.3	-1.9

This second table includes the efficacy results of the mean change in itching score from baseline at each visit in the full analysis set. The itching score at each visit was measured using a Visual Analogue Scale (0=no itch to 100=maximal itch). Note that the 95% confidence interval results favors Verkazia® QID vs vehicle.

Visit	Vehicle (N=58)	Verkazia® QID (N=56)	Verkazia® BID (N=54)
Baseline	78.4	78.0	80.1

Visit	Vehicle (N=58)	Verkazia® QID (N=56)	Verkazia® BID (N=54)
Month 1	-18.3	-33.8	-24.4
Month 2	-18.6	-36.0	-29.1
Month 3	-21.6	-39.8	-35.4
Month 4	-25.4	-44.1	-35.8

Analyses of the CFS score and itching score at month 1 of the efficacy evaluation period in the NOVATIVE study also provided supporting evidence. (Note that this was all that was mentioned in the prescribing information for this study). There was no data provided that demonstrated Verkazia® had superior results than cyclosporine.

Place in Therapy: Verkazia® is a 1mg/ml (0.1%) cyclosporine ophthalmic emulsion indicated for the treatment of vernal keratoconjunctivitis (VKC) in children and adults. It is approved to be used QID, and treatment can be discontinued after signs and symptoms are resolved and can be restarted if there is a recurrence. Verkazia® is the only topical immunomodulator indicated for the treatment of VKC in children (≥4 years) and adults. In addition, per the manufacturer website, "Verkazia® uses proprietary cationic ophthalmic emulsion technology to increase cyclosporine bioavailability in the cornea." Other cyclosporine products are currently available at different doses and in both emulsion and solution form at 0.05% and 0.09%, respectively.

There is no evidence at this time to support that Verkazia® is safer or more effective than the other currently preferred, more cost-effective medications. It is therefore recommended that Verkazia® remain non-preferred and require prior authorization and be available to those who are unable to tolerate or who have failed on preferred medications.

PDL Placement: ☐ **Preferred**
☒ **Non-Preferred**

References

[1] Verkazia [package insert]. Emeryville, CA: Santen Inc; 2022.
[2] Verkazia. Website: https://www.verkazia.com/why-verkazia. Accessed February 2023.

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