

PRIOR AUTHORIZATION POLICY

POLICY: Ophthalmology – Oxervate™ (cenegermin-bkbj ophthalmic solution – Dompé farmaceutici S.p.A)

TAC APPROVAL DATE: 10/31/2018

OVERVIEW

Oxervate, a recombinant human nerve growth factor, is indicated for the treatment of neurotrophic keratitis.¹ Oxervate was designated as a Breakthrough Therapy and an Orphan Drug by the FDA.^{2,3}

Disease Overview

Neurotrophic keratitis, a rare degenerative disease, is characterized by corneal epithelium breakdown, impairment of corneal healing, and development of corneal ulceration, melting, and perforation.^{2,4,5} Corneal epithelial cells release various neurotrophic growth factors, including nerve growth factors, which are important in maintaining the integrity and function of the ocular surface and in stimulating both epithelial and nerve fiber proliferation and survival.^{6,7} When corneal sensory innervation is impaired, reduction of both protective reflexes and trophic neuromodulators essential for the vitality, metabolism, and wound healing of the ocular surface tissues results. *In vivo* studies have shown that increasing nerve growth factor concentration after injury can accelerate healing.^{4,7}

Guidelines/Recommendations

Prior to the approval of Oxervate, there are no approved pharmacologic therapies for the treatment of neurotrophic keratitis.² If neurotrophic keratitis is left untreated, the condition can progress to anatomical loss of the eye; even with treatment, loss of vision is common.⁶ Current treatment options are supportive and do not improve the speed of healing. Treatment should target corneal sensory innervation impairment to restore corneal integrity; treatment goals are to stop progression and reverse damage from neurotrophic keratitis.

Regardless of disease severity/stage, all topical medications should be discontinued to avoid topical drug toxicity on the corneal epithelium.^{4,5} Additionally, preservative-free artificial tears should be used to improve lubrication. Prophylactic topical antibiotics can be considered to prevent superinfections. Associated ocular surface disease, such as exposure keratitis, dry eye, or limbal stem cell deficiency, should be treated to improve the prognosis of neurotrophic keratitis. Therapeutic contact lenses can be used to promote corneal healing.⁷ Surgical interventions are reserved for refractory cases.^{4,5,7}

POLICY STATEMENT

Prior authorization is recommended for prescription benefit coverage of Oxervate. Because of the specialized skills required for evaluation and diagnosis of patients treated with Oxervate as well as the monitoring required for adverse events and long-term efficacy, initial approval requires Oxervate to be prescribed by, or in consultation with, a physician who specializes in the condition being treated. All approvals are provided for 1 year in duration unless otherwise noted below.

Automation: None.

RECOMMENDED AUTHORIZATION CRITERIA

Coverage of Oxervate is recommended in those who meet the following criteria:

FDA-Approved Indications

1. **Neurotrophic keratitis.** Approve for 2 months if Oxervate is prescribed by, or in consultation with, an ophthalmologist.

CONDITIONS NOT RECOMMENDED FOR APPROVAL

Oxervate has not been shown to be effective, or there are limited or preliminary data or potential safety concerns that are not supportive of general approval for the following conditions. (Note: This is not an exhaustive list of Conditions Not Recommended for Approval.)

1. Coverage is not recommended for circumstances not listed in the Recommended Authorization Criteria. Criteria will be updated as new published data are available.

REFERENCES

1. Oxervate™ ophthalmic solution [prescribing information]. L'Aquila, Italy: Domp farmaceutici S.p.A; August 2018.
2. Oxervate. FDA Clinical Review. Available at: https://www.accessdata.fda.gov/drugsatfda_docs/nda/2018/761094Orig1s000TOC.cfm. Accessed on September 20, 2018.
3. Oxervate. FDA Pharmacology Review. Available at: https://www.accessdata.fda.gov/drugsatfda_docs/nda/2018/761094Orig1s000TOC.cfm. Accessed on September 20, 2018.
4. Mastropasqua L, Massaro-Giordano G, Nubile M, Sacchetti M. Understanding the pathogenesis of neurotrophic keratitis: the role of the corneal nerve. *J Cell Physiol.* 2017;232:717-724.
5. Sacchetti M, Lambiase A. Diagnosis and management of neurotrophic keratitis. *Clin Ophthalmol.* 2018;8:571-579.
6. Dua HS, Said DG, Messmer EM, et al. Neurotrophic keratopathy. *Progress in Retinal and Eye Research.* 2018;16:107-131.
7. Vesura P, Giannaccare G, Pellegrini M, et al. Neurotrophic keratitis: current challenges and future prospects. *Eye and Brain.* 2018;10:37-45.

HISTORY

Type of Revision	Summary of Changes*	TAC Approval Date
New Policy	--	10/31/2018

TAC – Therapeutic Assessment Committee; * For further summary of criteria changes, refer to respective TAC minutes available at: <http://esidepartments/sites/Dep043/Committees/TAC/Forms/AllItems.aspx>.