



Miebo (perfluorohexyloctane) Quantity Limit Program Summary

This program applies to Medicaid.

POLICY REVIEW CYCLE

Effective Date
1/1/2024

Date of Origin
1/1/2024

FDA APPROVED INDICATIONS AND DOSAGE

Agent(s)	FDA Indication(s)	Notes	Ref#
MIEBO™ (perfluorohexyloctane) Ophthalmic solution	Treatment of the signs and symptoms of dry eye disease		1

See package insert for FDA prescribing information: <https://dailymed.nlm.nih.gov/dailymed/index.cfm>

CLINICAL RATIONALE

Dry Eye Disease	<p>Dry eye disease (also known as dry eye syndrome) is a multifactorial disease of the ocular surface with loss of homeostasis of the tear film. It is accompanied by ocular symptoms where tear film instability and hyperosmolarity, ocular surface inflammation and damage, and neurosensory abnormalities play etiological roles.(4) The tear film secreting glands and ocular surface function as an integrated system. Disease or dysfunction of this system results in unstable and poorly maintained tear film that causes symptoms of ocular irritation and possible damage to the ocular surface. Dry eye disease may be exacerbated by systemic medications (e.g., diuretics, antihistamines, anticholinergics, systemic retinoids, antidepressants) and rosacea.(2)</p> <p>Dry eye disease is often associated with Sjogren syndrome, an autoimmune multisystem disorder that most often affects the tear and salivary glands. Tear deficiency may occur in other systemic diseases, such as lymphoma, sarcoidosis, hemochromatosis, and amyloidosis. Dry eye disease may also develop due to systemic viral infections, such as retroviruses, Epstein-Barr virus, and HIV.(2)</p> <p>The American Academy of Ophthalmology and the Tear Film and Ocular Surface Society (TFOS) categorized dry eye into three severity levels based on both symptoms and signs. Because of the nature of the disease, this classification is imprecise because characteristics overlap at each level of severity.(2,4,5)</p> <ul style="list-style-type: none"> • Mild dry eye: symptoms of irritation, itching, soreness, ocular discomfort, burning or intermittent blurred vision • Moderate dry eye: increased discomfort and frequency of symptoms, and negative effect on visual function may become more consistent • Severe dry eye: increasing frequency of visual symptoms that may become constant as well as potentially disabling <p>The American Academy of Ophthalmology recommend treating mild dry eye with the following:(2,6)</p> <ul style="list-style-type: none"> • Education and environmental modifications • Elimination of offending topical or systemic medications • Aqueous enhancement using artificial tear substitutes, gels, or ointment
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- Eyelid therapy (warm compresses and eyelid scrubs)
- Treatment of contributing ocular factors such as blepharitis or meibomianitis
- Correction of eyelid abnormality

For treatment of moderate dry eye, the following are recommended in addition to mild dry eye treatment options:(2,6)

- Topical anti-inflammatory agents (topical cyclosporine and corticosteroids), systemic omega 3 fatty acid supplements
- Punctal plugs
- Spectacle side shields and moisture chambers

For treatment of severe dry eye, the following are recommended in addition to mild and moderate dry eye treatment options:(2,6)

- Systemic cholinergic agonists
- Mucolytic agents
- Autologous serum tears
- Therapeutic contact lenses
- Surgical punctal occlusion
- Tarsorrhaphy

Because of the inconsistent correlation between reported symptoms and clinical signs as well as the relatively poor specificity and/or sensitivity of clinical tests, patients with suggestive symptoms without signs should be placed on trial treatments with artificial tears when other potential causes of ocular irritation have been eliminated. As the severity of the dry eyes increases, aqueous enhancement of the eye using topical agents is appropriate. Emulsions, gels, and ointments can be used. The use of artificial tears may be increased, but the practicality of frequent tear instillation depends on the lifestyle or manual dexterity of the patient. Non-preserved tear substitutes are generally preferable; however, tears with preservatives may be sufficient for patients with mild dry eye and an otherwise healthy ocular surface. When tear substitutes are used frequently and chronically (e.g., more than 4 times a day), non-preserved tears are generally recommended. It is imperative to treat any causative factors that are amenable to treatment.(2)

Anti-inflammatory therapies may be considered in addition to aqueous enhancement therapies. However, since dry eye symptoms tend to wax and wane over long periods of time, the lack of long-term data on the effectiveness of cyclosporine and the costs of longer-term (e.g., annual, lifetime) treatment should be weighed.(2)

Pre-treatment with topical ophthalmic corticosteroids either before or during initiation with a non-glucocorticoid anti-inflammatory agent may provide more rapid improvement in symptoms of dry eye disease and decrease the incidence of severe stinging associated with a topical immunomodulator agent compared to a topical immunomodulator alone.(6) The AAO also notes that topical corticosteroid use for dry eye disease is controversial, but note that they can be used for induction therapy prior to initiating non-glucocorticoid anti-inflammatory agents for maintenance therapy. Once the patient is in a successful maintenance phase, steroids are used for acute flare-ups triggered by travel, allergies, respiratory infections, or exposures to environmental irritants with maintenance therapy.(7)

The Sjogren's Syndrome Foundation's Clinical Practice Guidelines on Ocular Management in Sjögren's Patients states the following:(3)

- Management depends upon the nature of the dry eye and the severity of symptoms.
- In early disease, tear replacement with topically applied artificial tear or lubricant solutions may be sufficient, but progressive or more severe inflammation of the lacrimal gland and ocular surface occur both as an inciting

	<p>event in many cases and as a secondary effect as the dry eye disease worsens, called keratoconjunctivitis sicca (KCS), requires the use of dietary supplements (omega 3 essential fatty acids), anti-inflammatory measures (e.g., topical corticosteroids or cyclosporine), or oral secretagogues.</p> <ul style="list-style-type: none"> • Plugging of the lacrimal puncta can be done once the inflammatory component of dry eye is controlled. Control of lid margin (meibomian gland) disease may require topical antibiotic or systemic doxycycline therapy. The most severe cases of dry eye, particularly those unresponsive to more standard therapy, may require use of topical autologous serum or partial closure of the interpalpebral fissure to reduce surface exposure. Scleral contact lenses may be needed to control severe ocular surface damage.
Safety	Perfluorohexyloctane ophthalmic solution has no FDA labeled contraindications for use.(1)

REFERENCES

Number	Reference
1	Miebo prescribing information. Bausch & Lomb Inc. May 2023.
2	Dry eye syndrome Preferred Practice Pattern. American Academy of Ophthalmology. October 2018. https://doi.org/10.1016/j.optha.2018.10.023
3	Ocular Management in Sjögren’s Patients. Sjögren’s Syndrome Foundation’s Clinical Practice Guidelines. https://sjogrens.org/sites/default/files/inline-files/SF_CPG-Ocular_2022_0.pdf
4	Craig, J. P., Nichols, K. K., Akpek, E. K., Caffery, B., Dua, H. S., Joo, C.-K., Liu, Z., Nelson, J. D., Nichols, J. J., Tsubota, K., & Stapleton, F. (2017). TFOS DEWS II definition and classification report. <i>The Ocular Surface</i> , 15(3), 276–283. https://doi.org/10.1016/j.jtos.2017.05.008
5	Wolffsohn, J. S., Arita, R., Chalmers, R., Djalilian, A., Dogru, M., Dumbleton, K., Gupta, P. K., Karpecki, P., Lazreg, S., Pult, H., Sullivan, B. D., Tomlinson, A., Tong, L., Villani, E., Yoon, K. C., Jones, L., & Craig, J. P. (2017). TFOS DEWS II Diagnostic Methodology Report. <i>The Ocular Surface</i> , 15(3), 539–574. https://doi.org/10.1016/j.jtos.2017.05.001
6	Jones, L., Downie, L. E., Korb, D., Benitez-del-Castillo, J. M., Dana, R., Deng, S. X., Dong, P. N., Geerling, G., Hida, R. Y., Liu, Y., Seo, K. Y., Tauber, J., Wakamatsu, T. H., Xu, J., Wolffsohn, J. S., & Craig, J. P. (2017). TFOS DEWS II management and therapy report. <i>The Ocular Surface</i> , 15(3), 575–628. https://doi.org/10.1016/j.jtos.2017.05.006
7	Savvy steroid use. American Academy of Ophthalmology. (2016, May 5). https://www.aao.org/eyenet/article/savvy-steroid-use

POLICY AGENT SUMMARY QUANTITY LIMIT

Target Brand Agent Name(s)	Target Generic Agent Name(s)	Strength	QL Amount	Dose Form	Day Supply	Duration	Addtl QL Info	Allowed Exceptions	Targeted NDCs When Exclusions Exist
Miebo	perfluorohexyloctane ophth soln	1.338 GM/ML	4	Bottles	30	DAYS			

CLIENT SUMMARY – QUANTITY LIMITS

Target Brand Agent Name(s)	Target Generic Agent Name(s)	Strength	Client Formulary
Miebo	perfluorohexyloctane ophth soln	1.338 GM/ML	Medicaid

QUANTITY LIMIT CLINICAL CRITERIA FOR APPROVAL

Module	Clinical Criteria for Approval
QL Standalone	<p>Quantity limit for the Target Agent(s) will be approved when ONE of the following is met:</p> <ol style="list-style-type: none">1. The requested quantity (dose) does NOT exceed the program quantity limit OR2. The requested quantity (dose) exceeds the program quantity limit AND ONE of the following:<ol style="list-style-type: none">A. The requested quantity (dose) does NOT exceed the maximum FDA labeled dose for the requested indication ORB. BOTH of the following:<ol style="list-style-type: none">1. The requested quantity (dose) exceeds the maximum FDA labeled dose for the requested indication AND2. Information has been provided to support therapy with a higher dose for the requested indication <p style="text-align: center;">Length of Approval: up to 12 months</p>