SCIENCE IN FOCUS

Xiidra® (lifitegrast ophthalmic solution 5%) Across Patient Populations: Evidence Informing Practical Use in Dry Eye Disease

Exploring evidence-based clinical scenarios that inform when to consider Xiidra® (lifitegrast ophthalmic solution 5%) in dry eye management.

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KEY TAKEAWAYS

- The evidence base for Xiidra® (lifitegrast ophthalmic solution 5%) beyond pivotal clinical trials includes post-marketing prospective and retrospective studies, registry analyses and physician-reported experience reflecting its use across diverse patient populations.
- Data in symptomatic contact lens wearers reported that Xiidra® (lifitegrast ophthalmic solution 5%) was associated with approximately 2.5 additional daily hours of comfortable lens wear time.
- In cataract surgery candidates, Xiidra® (lifitegrast ophthalmic solution 5%) was associated with improved preoperative biometry accuracy, including 87.5% of eyes within 0.25 D after treatment versus 67.5% at baseline.
- Post-marketing safety studies spanning nearly 8 years and more than 900,000 patient-treatment years identified no new safety signals, with reported events consistent with the established safety profile of Xiidra® (lifitegrast ophthalmic solution 5%).

A Recent Review Considers When to Reach for Xiidra® (lifitegrast ophthalmic solution 5%)

Following our previous Science in Focus article on Xiidra® (lifitegrast ophthalmic solution 5%)'s pivotal clinical trial program, this article examines how the review by Dr Eric Donnenfeld and Dr Jason Bacharach contextualizes Xiidra use across evidence-based clinical scenarios in dry eye practice.

The review considers evidence across clinical scenarios including contact lens-associated dry eye, cataract and refractive surgery, ocular graft-versus-host disease and patients with ocular or systemic comorbidities.

In this article, we explore how evidence across these patient groups informs practical perspectives on Xiidra® (lifitegrast ophthalmic solution 5%) use beyond the pivotal clinical trial program.

Contact Lens Wearers With Dry Eye Symptoms

Contact lens discomfort remains a common cause of ocular dryness and reduced quality of life. In an investigator-initiated study on symptomatic contact lens wearers experiencing end-of-day dryness and discomfort (Schulze et al), patients reported improvement of symptoms within weeks of starting treatment with Xiidra® (lifitegrast ophthalmic solution 5%). Notably, continued use led to approximately 2.5 additional daily hours of comfortable wear time in average. The treatment was generally well tolerated, with no serious adverse events reported.

Real-world physician experience appears consistent with these findings. In a survey of 6 optometrists and 6 ophthalmologists, 11 out of the 12 (91.7%) reported using Xiidra in patients with contact lens-associated dry eye disease, providing further support for its potential use in this patient population. These results were presented by Feulner et al at ASCRS 2026.

Patients Undergoing Cataract and Refractive Surgery

The relationship between dry eye disease and ocular surgery is clinically important, as optimizing the ocular surface can help improve refractive outcomes and enhance patient satisfaction.

The review highlights evidence that tear film instability and ocular surface disease can affect preoperative biometry measurements prior to cataract surgery and may contribute to postoperative symptoms. In a multicentre study of patients scheduled for cataract surgery, treatment with Xiidra® (lifitegrast ophthalmic solution 5%) demonstrated improvement in biometry measurements and high order aberrations while also improving SPEED scores and ocular surface staining. Additional improvements were observed following a second treatment course initiated postoperatively.

A separate prospective study by Yang et al. similarly reported significant improvements in preoperative biometry accuracy (mean absolute error was within 0.25D in 87.5% of eyes after treatment compared to 67.5% at baseline), symptom burden and corneal staining following treatment with Xiidra in patients undergoing cataract surgery.

Furthermore, these findings align with real-world clinical experience. In a provider survey conducted in North America and Canada, 83% of responding eye care professionals reported use of Xiidra in patients undergoing cataract and refractive surgery to optimize the ocular surface preoperatively and postoperatively to support dry eye management.

Patients Suffering From Ocular Graft-Versus-Host Disease

The evidence base for Xiidra® (lifitegrast ophthalmic solution 5%) also extends into more specialized inflammatory ocular surface disorders with dry eye.

Ocular graft-versus-host disease (GVHD) shares several pathophysiological features with dry eye disease, including inflammatory cell infiltration, cytokine release and ocular surface damage. As reported in prospective and retrospective studies evaluating Xiidra for dry eye in patients with oGVHD, subjects demonstrated improvements in both signs and symptoms, while the treatment was generally well tolerated and no serious treatment-related safety concerns were reported.

Although these studies represent a small sample size, they provide evidence of how Xiidra has been utilized across a diverse dry eye patient population.

Broader Dry Eye Populations in Real-World Practice

Beyond specific clinical scenarios, real-world datasets and provider surveys help contextualize how Xiidra® (lifitegrast ophthalmic solution 5%) is used across broader dry eye populations encountered in routine care, with supporting evidence presented in recent congress communications cited below.

Registry analyses and provider surveys suggest that patients initiating Xiidra often had a history of ocular and systemic comorbidities. Cataract, glaucoma and age-related macular degeneration were among the most frequently identified ocular comorbidities, while diabetes, hypertension, Sjögren's syndrome and rheumatoid arthritis were frequently present systemic conditions of patients prescribed this treatment.

Eye care professionals reported using Xiidra in patients with mild, moderate and severe dry eye disease, including those who wear contact lenses or have undergone cataract surgery, refractive surgery, keratoplasty, vitreoretinal surgery and other ocular procedures. Survey findings indicated approximately two-thirds of clinicians reported near-complete or complete symptom resolution within one to three months of treatment, while long-term follow-up data suggested benefits could be maintained with continued treatment.

Safety observations from physician experience and post-marketing surveillance have remained consistent with the established safety profile of Xiidra. Across nearly eight years of worldwide experience and more than 900,000 patient-treatment years of exposure, no new safety signals were identified. Reported adverse events were consistent with the known safety profile and were generally mild or moderate in severity.

Implications for Dry Eye Disease Management

Across clinical trials, real-world evidence and physician-reported experience, Xiidra® (lifitegrast ophthalmic solution 5%) has been evaluated in patients with a broad range of dry eye disease etiologies and clinical presentations. Taken together, the available evidence suggests that this treatment improves both the signs and symptoms of DED with symptom improvement observed as early as 2 weeks in some patients. The evidence also reflects use across a range of underlying causes, comorbidities and clinical settings.

Readers interested in exploring the complete evidence base are encouraged to consult the review article by Dr Eric Donnenfeld and Dr Jason Bacharach, which provides a comprehensive overview of clinical trial findings, real-world evidence and patient-specific applications of Xiidra across the dry eye disease spectrum. The publications and congress communications discussed in this entry are also available on the publication section of this website.

References

1. Donnenfeld E, Bacharach J. When to reach for XIIDRA: guidance from clinical trials and real-world evidence.
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Author disclosures

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Xiidra® (lifitegrast ophthalmic solution 5%) is available in the US. However, it is not available worldwide. Contact us for further information about Xiidra availability.