

Early Experience With a More Accurate IOL

The depth of vision with this lens is greater than that typically observed with a monofocal IOL.

BY T. HUNTER NEWSOM, MD

There is no doubt that the technological evolutions of the past 2 decades have greatly advanced the field of cataract and refractive surgery.

Cataract patients themselves have a score of premium IOLs from which to choose. Surgical tools and techniques, along with more accurate, highly reproducible biometric measures, have enhanced surgical outcomes. In the near future, surgeons may find themselves using femtosecond lasers to refine surgery even further.¹ These advances add up to more accurate and predictable refractive outcomes. Obviously missing from this list has been a more accurate IOL.

STRICT TOLERANCES AND MANUFACTURING INCREMENTS

Manufacturers of IOLs have produced complex lens designs, but until now, they had yet to produce an IOL with very strict tolerances. Experts have indicated that the following variables affect refractive outcomes: biometry, keratometry, the configuration of the capsulorhexis, the IOL's power formula, retinal thickness, and the IOL's manufacturing tolerances.²

In April 2010, the FDA approved the Softec HD (Lenstec Inc., St. Petersburg, FL). This IOL addresses both manufacturing tolerances and manufacturing increments. The lens ranges from 15.00 to 25.00 D and is manufactured with a 0.11 D tolerance. The tight tolerance allows the Softec HD to be manufactured in nonoverlapping 0.25 D increments, which could benefit many patients.

I participated in the FDA's clinical trial of the Softec HD lens. Since the IOL received FDA approval, it has been my monofocal implant of choice.

RESULTS

My clinical trial data indicated that approximately 40% of patients achieved a postoperative spherical equivalent within 0.25 D of target, and approximately 70% were within 0.50 D of target (data on file at Lenstec, Inc.). With optimization, 50% of my patients' visual acuity

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is within 0.25 D of target and 77% within 0.50 D of target. These results are superior to those with conventional lenses currently published in the literature.^{3,4}

My patients report that they are happy with their vision after receiving the Softec HD, and anecdotal evidence suggests that some patients experience a near benefit from the lens as well, theoretically attributable to the aberration-neutral, biasphoric optic.⁵ Additional trials are required to examine near vision as part of the monofocal equation. For now, I have no doubt that the Softec HD provides my patients with a greater depth of vision than they typically achieve with a monofocal lens. A high number of my Softec HD patients are seeing 20/20 distance and J1 to J3 near without glasses. With these results, I will continue to enthusiastically use this IOL. ■

T. Hunter Newsom, MD, is the founder and leader of Newsom Eye in Tampa, Florida. He acknowledged no financial interest in the product or company mentioned herein. Dr. Newsom may be reached at (813) 908-2020; hunter@newsomeye.net.



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