

Advanced
OCULAR CARE

Improving
**Integrated
Eye Care**

**Collaborative Patient
Management for
Premium IOLs**

Contributors:

- Robert Cionni, MD
- Stephen V. Scoper, MD
- Richard A. Van De Velde, OD
- J. James Thimons, OD, FAAO



Improving Integrated Eye Care

Collaborative Patient Management for Premium IOLs

Part two of a four-part series



The changing landscape of health care delivery paired with a rising number of patients has led to a demand for the improved integration of ophthalmology and optometry in providing vision care. For some clinicians, this integration requires a change in paradigm, while others have already adopted a collaborative care model with success. This four-part series offers eye care professionals the tools necessary for improving the integrated delivery of care, and it provides valuable information on achieving better outcomes and enhancing patients' satisfaction.

Contributors

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Incorporating Elective IOLs Into Practice

The goal is to meet or exceed patients' expectations.

BY ROBERT CIONNI, MD



My Salt Lake City practice is mainly cataract based with a moderate corneal refractive component. My colleagues and I at the practice have a strong optometric referral base, yet most patients are referred to us by word of mouth. Our philosophy regarding patient care is to treat each patient as we would a family member. Therefore, we strive to educate our patients about their options, make certain that they have realistic expectations, and then do our utmost to meet or exceed those prospects.

HOW DO WE ACCOMPLISH REALISTIC PATIENTS' EXPECTATIONS WITH ELECTIVE IOLs?

Patients' Education

An educational brochure is mailed to any patients who are likely to need cataract surgery before they come into the office for an evaluation. This includes any patient who is scheduled for a cataract consultation, a cataract re-evaluation, or whose symptoms obtained by the appointment scheduler indicate a possible cataract. The brochure contains literature that describes what a cataract is, how we treat cataracts, what is astigmatism, and what is presbyopia. It then discusses patients' IOL options in generic terms.

By providing this information prior to their office visit, patients have the opportunity to gain a general understanding of the available options before they come into the office. Indeed, many investigate the options further, usually with the help of the Internet and arrive to their appointment with a concrete idea of what they hope to achieve with their cataract surgery.

Once in the office, the patient meets the technician who will begin the workup and ask the patient if he or she has any questions about the literature. Our technicians have been well trained and can answer most patient questions regarding elective IOLs. Before the patient's dilation, the technician obtains keratometry readings, either automated or manually. This is so that I have an idea as to whether or not the patient will need astigmatic correction before the examination. While the patient is dilating, he or she is asked to complete a short questionnaire that helps me deter-

mine his or her level of desire for reduced spectacle wear.

Next comes my examination, which typically begins with me saying something like this: "Mrs. Smith, from your symptoms and initial testing, it seems that you may indeed have a cataract. I also understand that you would like to be out of your glasses as much as possible after cataract surgery. I am going to examine your eyes and see what I can do to accomplish that for you." I have now asserted my role as a patient advocate and not someone trying to "sell" an expensive IOL procedure.

After a detailed examination, I have all the information I need to recommend an IOL to my patient. If the patient agrees with my recommendation, I then review the advantages and compromises relative to the recommended IOL, including the cost. I strongly recommend offering financing, an option 30% of our patients choose.

Patients' Selection

We must take several factors into consideration—some of which are IOL dependent—before selecting a patient to receive an elective IOL. For instance, if a patient has a poor tear film or other pathology that might indicate a guarded visual prognosis, I will not recommend a presbyopia-correcting IOL. However, if that same patient has corneal astigmatism of 1.00 D or more, I will likely recommend a toric IOL.

Assuming the patient has an unremarkable examination (other than cataract) and less than 1.00 D of astigmatism, I begin to consider a presbyopia-correcting IOL. Before making the recommendation, however, I want to get to know the patient better. What are his or her visual needs at work and at play? This discussion takes a little extra chair time, but it is certainly time well spent. I will not recommend a presbyopia-correcting IOL unless I am confident that the patient understands all that we have discussed and has realistic expectations. For specific patients with significant astigmatism, I may consider a limbal relaxing incision following the Donnenfeld nomogram (available at www.Iricalculator.com). I use optical zone markers at the beginning of surgery, and I strive to center the capsulorhexis and the IOL on the visual axis.

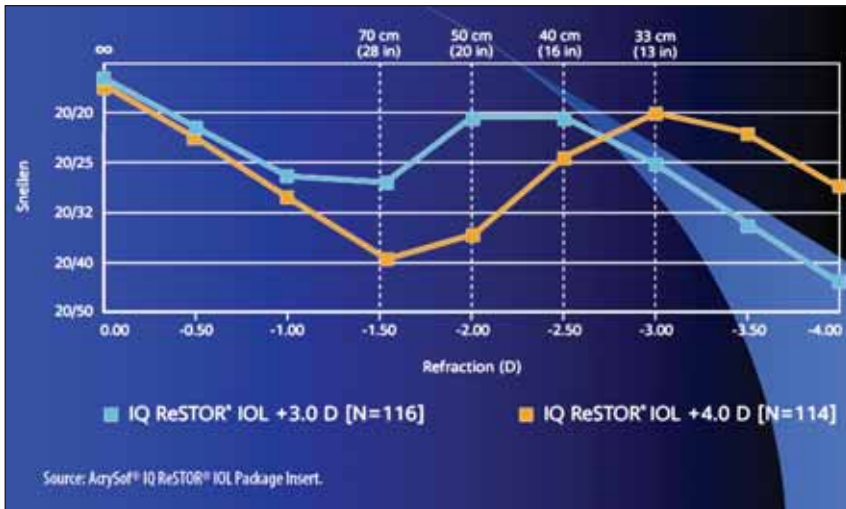


Figure 1. A comparison of the binocular defocus curves for the AcrySof IQ ReSTOR +4.0 D and AcrySof IQ ReSTOR +3.0. Source: AcrySof [package insert]. Fort Worth, TX: Alcon Laboratories, Inc.

es for 90% to 95% of everything they do. I reinforce to my patients the IOL's limitations and compromises. For the IQ ReSTOR IOL +3.0 D, these would include reading in dim light and halos around lights at night. I explain that the halos occur, in part, due to how the IOL works. I also explain that, after the first week, most people feel that the halos are minimal, not bothersome, and a good compromise for obtaining excellent distance and reading vision without glasses.

LENS CHOICE

As mentioned earlier, for patients who have more than 1.50 D of astigmatism, I usually recommend a toric IOL solution. I explain to the patient that although he or she will likely still need reading glasses, there will be a 97% chance of not needing glasses for distance vision. Most of these patients choose this option. If he or she still wants near visual freedom and has never been successful with monovision, however, I may offer a two-step procedure in specific cases when a LASIK enhancement will likely be needed after the cataract procedure.

“If the patient does not have significant astigmatism, I make a recommendation for a presbyopia-correcting IOL. My preferred choice is the AcrySof IQ ReSTOR IOL +3.0 D.”

If the patient does not have significant astigmatism, I make a recommendation for a presbyopia-correcting IOL. My preferred choice is the AcrySof IQ ReSTOR IOL +3.0 D (model SN6AD1; Alcon Laboratories, Inc., Fort Worth TX). I reiterate the goal of spectacle reduction, not complete freedom, and I tell my patients that in my experience, the IQ ReSTOR +3.0 D is the presbyopia-correcting IOL that will provide them with the most significant amount of reduced spectacle wear.

In addition, I state that they will likely not need glass-

Why IQ ReSTOR IOL +3.0 D?

Having implanted almost every available presbyopia-correcting IOL style over the last several years, I have found that

the IQ ReSTOR IOL +3.0 D provides the greatest chance of spectacle freedom with the least risk for unwanted dysphotopsias or need for an enhancement (Figure 1).

What About the Other Available Presbyopia-Correcting IOLs?

Anyone who implanted the original AcrySof ReSTOR +4.0 D IOL (model SN60D3; Alcon Laboratories, Inc.) can tell you that, although many patients were satisfied, many were underwhelmed for two reasons. First, the decrease in contrast was significant owing in part to the fact that the IOL did not have an aspheric design. This led to complaints of “hazy vision.” Second, the reading distance was just too close.

The ReZoom lens (Abbott Medical Optics Inc., Santa Ana, CA) provided a bit better reading distance compared with the ReSTOR IOL +4.0; however, in my experience, the dysphotopsias were too severe, and the near-reading clarity was insufficient for many patients.

Although the Crystalens (Bausch + Lomb, Rochester, NY) IOL models have improved during the years, three basic problems remain:

- poor reading vision in many patients unless a moderate amount of monovision was planned and obtained,
- incomplete UV blocking, and
- difficulty predicting where the IOL's axial position would end up after surgery. This is due to the hinged haptics and resulted in 50% of my patients ending up more than 0.50 D from my refractive target at the 1-month visit.

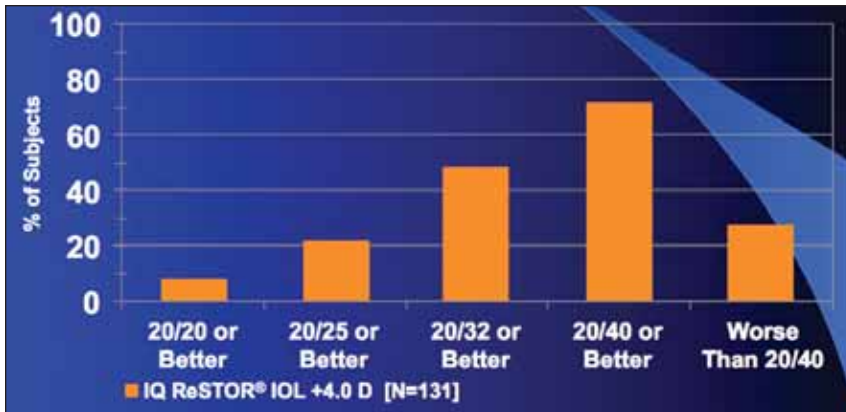


Figure 2. Vision at all three distances for the IQ ReSTOR IOL +4.0 D.

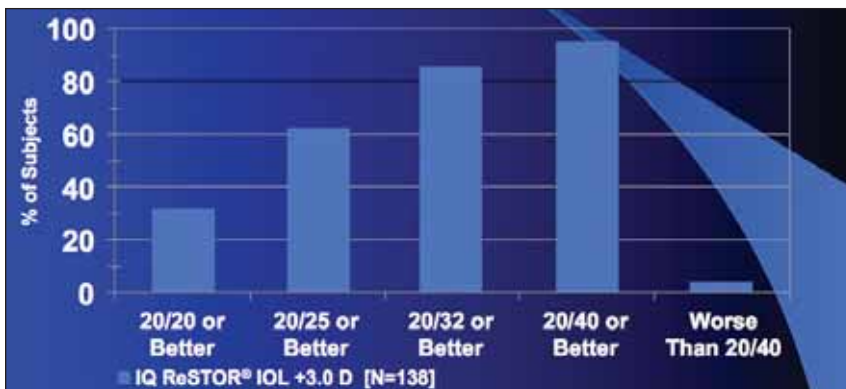


Figure 3. Vision at all three distances for the IQ ReSTOR IOL +3.0 D.

Additionally, in my experience, the resulting myopia or hyperopia tended to shift months after surgery, leading to a higher risk for enhancement and perhaps multiple enhancements in these patients.

Tecnis Multifocal IOL

Why have I not implanted the Tecnis Multifocal IOL? Because this IOL has a full-optic diffractive grating, it should provide better near vision in dim light than the IQ ReSTOR IOL +3.0 D. However, providing the ability to read in dimmer light might induce compromises that may not be advisable for the majority of my patients. The Tecnis Multifocal IOL incorporates a 4.00 D add, and I believe the resultant reading vision may be too close. Additionally, a full-optic diffractive grating may lead to a greater likelihood of

severe nighttime halos and glare.¹

IQ ReSTOR +3.0 D

As mentioned earlier, the IQ ReSTOR IOL +3.0 D has become my presbyopia-correcting IOL of choice for the vast majority of my patients. This IOL has several unique attributes that have improved patients' satisfaction in terms of reduced spectacle use and minimal compromises or dysphotopsias. The apodized optic manages light and allows for excellent reading vision in good light while minimizing unwanted halos and glare, especially when pupils are larger such as when one is driving at night. Compared with the spherical, the now aspheric design of the lens improves contrast sensitivity. Additionally, the 3.00 reading add at the IOL plane provides the most acceptable reading distance and the best intermediate vision of all the presbyopia-correcting IOLs that I have used without compromising near

reading (Figures 2 and 3). It has been demonstrated in laboratory settings that the blue-light-filtering properties of this IOL may help to prevent retinal damage.²

CONCLUSION

The ultimate goal in our practice is to meet or exceed each patient's expectations. This might be accomplished with a conventional IOL, a toric IOL, or a presbyopia-correcting IOL depending on the patient's desires and the pathology present. Understanding what each IOL design can offer the patient is paramount to being able to accomplish this task. ■

1. Tecnis Multifocal [package insert]. Santa Ana, CA: Abbott Medical Optics Inc.
2. Sparrow JR, Nakanishi K, Parish CA. The lipofuscin fluorophore A2E mediates blue light-induced damage to retinal pigmented epithelial cells. *Invest Ophthalmol Vis Sci.* 2000;41(7):1981-1989.



How Is Your Practice Set Up?

Pearls for incorporating a successful optometric network.

BY STEPHEN V. SCOPER, MD



My practice, Virginia Eye Consultants, is located in a 34,000-square foot state-of-the-art facility with 27 examination lanes, an ASC, and a LASIK center. There are five ophthalmologists in the practice, including a fellowship-trained cornea and external disease specialist, retina, glaucoma, and oculoplastic specialists, as well as two optometrists. The director of optometric services is a residency-trained optometrist who is a key player in developing and growing the practice's optometric referral base. He is assisted by the optometric services coordinator who works in a similar fashion to a pharmaceutical representative calling on six optometric practices per day.

The team generates approximately 2,700 cataract surgeries per year and collaboratively cares for more than half of these patients with other optometrists in the community. My colleagues and I have a 30% premium IOL conversion rate, with our current choice being the AcrySof IQ ReSTOR +3.0 D and the AcrySof IQ Toric IOLs (both from Alcon Laboratories, Inc., Fort Worth, TX). Although the majority of our optometric referrals are for cataract surgery, the network also provides significant referrals for in the areas of retina, glaucoma, and oculoplastics.

COLLABORATIVE CARE REFERRALS FOR GROWING

Elective IOL Conversion Rates

Educating the optometric network about premium IOL technology is the primary factor in growing the elective IOL conversion rate at Virginia Eye Consultants. The information empowers the optometrist to make a specific recommendation for an IOL to his or her patient prior to referring the patient. My colleagues and I stress that premium IOLs are about good patient care and providing a great quality of life.

Many times, the best choice of IOL will be a monofocal implant for distance or near as well as replicating monovision in a successful monovision contact lens patient. Toric and multifocal IOLs, however, can be an exciting opportunity for patients. The referring optometrists tell their patients that this is truly a great time to have cataract surgery, as the procedure can

“Whenever a concern arises about joint patient management, the question that should be asked is, What is best for the patient?”

offer so much more than in the past. The referring provider emphasizes to the patient that this is his or her only opportunity to select an IOL and he or she will be given all of the information needed to help with making this important decision. Patients often feel more comfortable discussing their options with an optometrist that they have known for many years versus a surgeon that they have only known a few minutes. The optometrists understand that they have an important responsibility to educate their patients and to make a recommendation. All optometrists involved in integrated care must have a call to action in recommending a premium IOL to appropriate patients.

The foundation of integrated patient management is quality care. Whenever a concern arises about joint patient management, the question that should be asked is, What is best for the patient? Shared care is always the patient's choice and is documented with a consent form for comanagement as well as a transfer of care form from the surgeon's office (Figures 1A and B). Communication between the ophthalmologist and optometrist is a critical component to accomplishing this goal. This exchange of ideas and education builds strong bonds between the two doctors, resulting in the best possible care for patients.

Optometrists are motivated to help their patients by offering them premium IOL technology and, therefore, being able to make a well-informed recommendation to their patients. Receiving an additional fee for their supplementary work is also an important component. These optometric fees must be transparent to the patient. As a result, at my facility, the staff asks patients to make three separate payments for premium IOLs:

- to the ASC for the IOL's cost
- to the ophthalmology practice for its costs



A

VIRGINIAeye™
consultants

TRANSFER OF CARE AFTER CATARACT SURGERY

Patient Name: _____ DOB: _____

Surgeon: _____

Sx Date: _____ OD / OS

Type of IOL: Standard / ReStor / Toric

OD / OS: VEC has billed for ____ day(s) of post operative period.

Co-Managing Doctor: _____

Location / Fax: _____

Date when Care is transferred to co-managing doctor: _____

_____ OD / OS

Patient Signature: _____ Date: _____

B

CONSENT FOR COMANAGEMENT AFTER CATARACT EYE SURGERY

Patient Name: _____

Patient Confirmation

I understand that Stephen V. Scoper, M.D. will be performing surgery on me and my optometrist will be co-managing for the reason initiated by me and my optometrist below:

Patient Initial	Optometrist Initial	
_____	_____	Surgeon's unavailability
_____	_____	Clinically appropriate and in patient's best interest
_____	_____	Travel, illness, leave, in a rural area, surgery performed in a designated physician shortage area.
_____	_____	Patient cannot travel

It is my desire to have my own ophthalmologist/optometrist, Doctor _____, perform my postoperative follow-up care. I will discuss this postoperative selection with my surgeon, Stephen V. Scoper, M.D. I understand that an optometrist may lawfully provide postoperative care under applicable state and Federal law. I understand that my ophthalmologist/optometrist will contact Dr. Scoper immediately if I experience any complications related to my eye surgery. I understand that I may also contact Dr. Scoper at any time after the surgery.

Patient: _____ Date: _____

Printed Name: _____

Witness: _____ Date: _____

Not MD/OD

Ophthalmologist/Optometrist Confirmation

I have agreed to provide follow-up care for _____. I will see the patient after surgery when Dr. Scoper notifies me that he is releasing the patient to my care. I agree to notify my portion of the postoperative period.

Ophthalmologist/Optometrist: _____ Date: _____

Source: OMIC
Revised 2/23/07

Figure 1. These forms, Transfer of Care After Cataract Surgery (A) and Consent for Comanagement After Cataract Surgery (B), are available via the OD Resources Portal at www.virginiaeyeconsultants.com. To obtain access, visit the Web site and request a log in and password.



IMPROVING INTEGRATED EYE CARE

- to the optometry practice for its costs

Typically, the optometrist receives 20% of the fee charged by the ophthalmologist after the ASC fee has been paid.

Developing and growing an optometric referral base for cataract surgery and premium IOL conversion is based on several sound principles, including:

- developing an infrastructure and protocol for ensuring that all patients are returned to their optometrist
- personal visits by the surgeon to the optometrist's office
- developing a systematic approach to communicating with the optometric network on a continuous basis
- tracking optometric referrals and following trends
- continuing optometric education

HOW TO EDUCATE OPTOMETRISTS

Optometric education is a critical component for jointly managing care, because all providers need to make sure they are on the same page. Virginia Eye Consultants offers quarterly continuing education seminars that provide 2 to 3 hours of credit. Many times outside, nationally known optometric speakers are brought in. Smaller roundtable dinners are held every other week giving optometrists an opportunity to interact one-on-one with ophthalmologists. Other opportunities to build these relationships include supporting optometric educational events, newsletters, and the practice's Web site. The "OD Resources Portal" (www.virginiaeyeconsultants.com) is a password-protected site for optometrists where they can download

"My colleagues and I learned several years ago that jointly caring for patients with premium IOLs is very different than integrated care for routine cataract surgery patients with multifocal IOLs."

past presentations, keep abreast of new developments in ophthalmology, and download all of the forms needed for collaborative care.

My colleagues and I learned several years ago that jointly caring for patients with premium IOLs is very different than integrated care for routine cataract surgery patients with monofocal IOLs. Thus, a 3-hour course called "Comanagement of Premium IOLs," was developed. This is a required course for all optometrists in the network who collaboratively care for ReSTOR or toric IOL patients. This lesson offers in-depth training regarding multifocal and toric IOL technology, clinical trial results, tips for patient selection, and setting proper patients' expectations. The nuances of postoperative care and problem solving with multifocal IOLs are a very important component of this program.

Only by educating optometrists can they in turn educate patients about premium IOL technology. The goal my practice has for the optometric network is that its members recommend with enthusiasm a surgeon to their patients and the premium IOL to appropriate candidates. ■



Optometric Preoperative Management of Cataract Patients

The optometrist's role in the selection of IOLs.

BY RICHARD A. VAN DE VELDE, OD



According to the American Optometric Association's Clinical Practice Guidelines on the Care of the Adult Patient With Cataract, surgery is indicated when the cataract formation has reduced visual acuity, which

interferes with the patient's lifestyle and everyday activities and when satisfactory functional vision is not achieved with spectacles, contact lenses, or other optical aids.¹ Although generally it is not technically difficult to diagnose a typical cataract, practicing state-of-the-art optometry means more than telling patients that we can no longer help them with glasses or contact lenses and that they should seek the care of an ophthalmologist for surgery. In today's challenging and competitive marketplace, it is imperative that we as optometrists maintain our relationship with our patients throughout the entire surgical encounter, from the initial preoperative examination through the final postoperative evaluation. Each optometrist must provide what he or she believes is the best in care by being involved through the entire process. This is best accomplished through educating the patient, arranging for the appropriate referral to the most suitable surgeon, assisting the patient and the surgeon with IOL recommendations, and managing postoperative care.

PATIENT EDUCATION

Once an optometrist diagnoses a cataract, the job is far from done. The primary care optometrist has the responsibility to explain to the patient that the cataract is the reason for his or her loss of visual acuity and contrast sensitivity, as well the etiology of symptoms such as increased glare and halos at night. The optometrist may offer these descriptions verbally and by using brochures, handouts, diagrams, photos, and/or videos.

The patient should be made to understand that traditional optical correction may no longer be sufficient to meet his or her visual needs for activities of daily living, and that it is time to consider cataract surgery. For some patients, particularly those who have been

“Many optometrists elect to allow the ophthalmologist to whom the patient is being referred provide the education. This is an opportunity missed.”

proactively managed by their optometrist, vision loss is not a surprise. For others, however, the loss of vision is unexpected and is considered an unpleasant discovery. These patients should be counseled that the optometrist will act as their advocate throughout the entire surgical experience. They deserve to know that contemporary cataract surgery can not only return excellent visual acuity but can also reduce their dependence on spectacles or contact lenses with the use of aspheric monofocal, toric, or presbyopia-correcting IOLs (either multifocal or accommodating).

Surgery cannot be performed without explaining the choices of IOLs to the patient. Many optometrists elect to allow the ophthalmologist to whom the patient is being referred provide this education. This is an opportunity missed. The patient has a right to know all of the available options, and it is appropriate for the optometrist to begin this discussion and to make recommendations to the patient and the surgeon.

Often, the optometrist is familiar with the patient's medical history, which aids in the IOL selection process. The optometrist has the information required to give the best advice to the patient based on the results of the current examination. When keratometry readings or corneal topography indicate the presence of more than 1.00 D of corneal astigmatism, a toric IOL might be recommended. Conversely, in cases when there is 1.00 D or less of corneal astigmatism, a presbyopia-correcting IOL might be an option, assuming that there are no medical contraindications. Perhaps even more important, the optometrist often has enough experience with the patient to know if his or her personality will allow for successful adaptation



IMPROVING INTEGRATED EYE CARE

Cataract Surgery and Your Lens Options

Cataract surgery is a big decision... and so is the artificial intraocular lens (IOL) you choose for the procedure. Each lens offers its own unique features and benefits – and the one you pick can have a major impact on your vision.

Based upon your lifestyle and the unique characteristics of your eyes, the following artificial lens options could be right for you:

- AcrySof® IQ ReSTOR® IOL Multifocal Lens**
Most IOLs can only correct vision at one distance – these premium lenses correct vision near, far and in-between, for your best chance at freedom from glasses!!
- AcrySof® IQ Toric IOL Astigmatism-Correcting Monofocal Lens**
These advanced lenses are designed to correct both cataracts and astigmatism at the time of surgery, for clear distance vision without the need for glasses. However, you will still need glasses for reading.
- AcrySof® IQ IOL Monofocal Lens**
Typically covered by insurance or Medicare, these trusted lenses provide clear distance vision. However, you will likely still need glasses for reading – and possibly for distance vision.

Bring this referral sheet to your surgeon, so you can fully discuss your options, and decide what's best for you.

Your Surgeon Referral:

You'll be referred to Dr. _____ for surgery.

To schedule an appointment, call _____.


You're being referred by Dr. _____.

Get the Full Story:
For more information about cataract surgery, visit these educational websites:
www.acrysofrestor.com
www.allaboutvision.com
www.cataractsurgery.com

Paying For Your Lenses:
Medicare and insurance typically cover the cost of cataract surgery with a standard monofocal lens, like the AcrySof® IQ IOL. If you'd like to take advantage of advanced lenses like the AcrySof® IQ ReSTOR® or AcrySof® IQ Toric IOLs, the procedure will still be covered, and you can choose to pay an additional fee for these lenses. Talk to your doctor or insurance provider for full details.

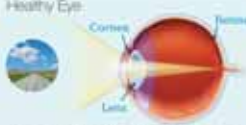
Want to learn more about cataract surgery?
Request your complimentary copy of *Focus™: A Journey to Clearer Vision* at www.acrysofrestor.com

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This publication is part of an educational initiative, sponsored by the AcrySof® IQ IOL Family and Alcon, Inc.




Cataract Surgery At A Glance

Healthy Eye:




Light enters the eye through the cornea, passes through the natural crystalline lens and is accurately focused onto the retina, providing a clear, sharp image.

Eye with Cataract:



As the old eye, the lens becomes clouded, allowing less light to pass through. The light that does reach it to the retina is diffused or scattered, leaving vision dulled and blurry.

The Cure for Cataract:



The cloudy natural lens is removed and replaced by an artificial Intraocular Lens (IOL). This lens also acts as the eye's camera lens.

Common Cataract Symptoms:

- Blurred vision
- Faded or dull colors
- Poor night vision
- Sensitivity to light

Choosing the Right Lens

The artificial lens you select determines a major portion of your vision.

AcrySof® Lens Options	Monofocal	Intermediate	Distance	Astigmatism
AcrySof® IQ ReSTOR® IOL Multifocal Lens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AcrySof® IQ Toric IOL Astigmatism-Correcting Monofocal Lens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AcrySof® IQ IOL Monofocal Lens	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Figure 1. This form can be filled out during the patient's visit and given to him or her to take to the surgical consultation.

to technology such as a multifocal or accommodating IOL. Patients who have successfully adapted to monovision contact lenses may be best served by surgical correction in a similar manner. This should be clearly explained to the patient as well as the consulting surgeon.

Primary care optometrists have a unique opportunity to empower their patients. By having the aforementioned discussions before the patient is in the examination chair of the consulting surgeon, he or she can be much more comfortable and informed when the IOL's selection occurs. The final recommendation is that of the surgeon, and the final decision is that of the patient. The optometrist, however, has the opportunity to provide a great deal of assistance to both parties as this important choice is made.

When considering available options of IOLs, my preference is the platform of lenses from Alcon Laboratories, Inc. (Forth Worth, TX), including the AcrySof IQ aspheric monofocal IOL, the AcrySof Toric IOL, and the AcrySof IQ ReSTOR IOL (my preference is the +3.00 D). My patients have experienced a great deal of success with this series of IOLs. Regardless of which IOLs optometrists and the surgeons choose to use, the same rules apply. Make your recommenda-

tions based on sound clinical judgment, educate patients as thoroughly as possible, underpromise and overdeliver, and keep the lines of communication open with the patient and the surgeon.

PATIENTS' REFERRAL

When referring a patient for surgical consultation, it is very important to explain to him or her why a particular surgeon was recommended and that the patient will be seen at the optometrist's office for postoperative care. An appointment should be scheduled with the consulting surgeon before the patient leaves the office, and, ideally, a written referral should be forwarded to the surgeon. The referral should include pertinent findings from the exam, potential contraindications to surgery, any current ophthalmic treatment (including treatment of chronic ocular surface disease), and possible IOL recommendations that have been discussed. A patient should never be dismissed from the optometrist's office with a fistful of business cards and the advice to "pick one of these surgeons and make your own appointment." If a patient insists on making his or her own appointment, notify the surgeon in writing that a patient is being referred for consultation, and document in the



patient’s chart that he or she wished to schedule his or her own appointment. A staff member should follow up with a phone call to confirm that the appointment was made.

A tool that can assist both in educating the patient regarding types of IOLs and reinforcing the scheduled appointment with the appropriate ophthalmic surgeon is the brochure “Cataract Surgery and Your Lens Options” (Figure 1). This form can be filled out during the patient’s visit and given to him or her to take to the surgical consultation.

CONCLUSION

In contemporary cataract surgery, it is more important than ever to be aware of what our counterparts in ophthalmology are providing for our patients. To be on the cutting edge of eye care, we need to be on the cutting edge of ophthalmology. More surgeons are offering the option of a premium IOL with cataract surgery. I have seen optometric practices that chose to ignore the potential effect on their patient base of technological advances such as radial keratotomy and LASIK, as well as those that chose to embrace them. By choosing not to take advantage of the trend toward refractive surgery, some practices failed to satisfy their patients’ needs and may have suffered because of it. Those who involve their practices in these trends will thrive.

We are at the crossroads of refractive and cataract surgery. The use of premium IOLs is a growing segment of the cataract surgery market, having increased to 12.8% of the total US market share in the fourth quarter of 2009 (Figure 2). This percentage is likely to grow as technology brings new IOL options to our colleagues in ophthalmology and ultimately to our patients. Those who take advantage of technology will be involved in a new and exciting realm of eye care, and optometric practices will benefit. Most importantly, however, patients will be well served by optometrists’ expertise. ■

1. American Optometric Association, Optometric Clinical Practice Guidelines: Care of the Adult Patient with Cataract. Revised: 2004. www.aoa.org/documents/QRG-8.pdf. Accessed March 5, 2010.

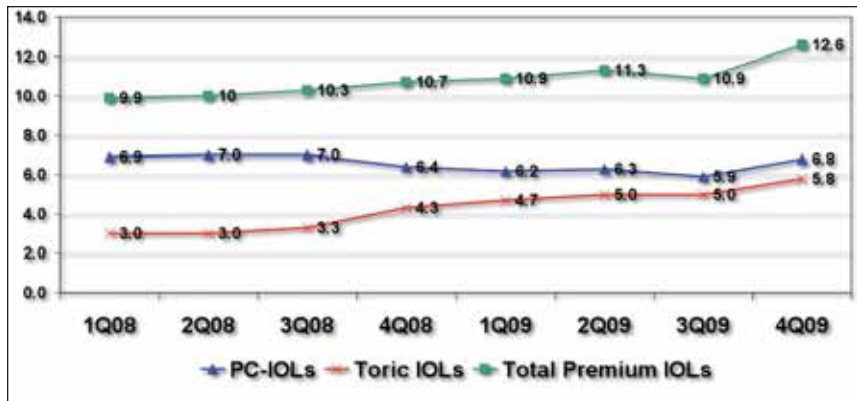


Figure 2. The use of premium IOLs is a growing segment of the cataract surgery market, having increased to 12.8% of the total US market share in the fourth quarter of 2009. (Source: Market Scope LLC, St. Louis MO.)



Managing the Postoperative Premium IOL Patients

A clinician's guide to understanding the effect of premium IOL technology on patients' care.

BY J. JAMES THIMONS, OD, FFAO



Comanagement of the cataract patient has been an integral aspect of optometric practice for more than 20 years. During that period, technological advances have included foldable IOLs, clear corneal small-incision surgery, improved implant measurements, and sutureless procedures. Although these upgrades have made modern cataract surgery the most successful surgical procedure ever performed, they are small steps compared to the quantum leap that premium IOLs represent. The ability to address presbyopia and provide visual function at all distances is the most remarkable advancement in this field since the IOL's invention by Dr. Ridley.¹

Advances bring challenges that must be met and knowledge that must be acquired in order to maximize the potential of the new technology. This is particularly true regarding the postoperative care of the premium IOL patient, which can be divided into two general categories: day 1 to 2 weeks and 2 weeks to 3 months (see sidebar *What to Look for After Surgery*).

DAY 1 TO 2 WEEKS POSTOPERATIVELY

At the patient's 1-day visit, the physician should address all of the typical factors associated with cataract surgery. These include issues such as visual acuity that matches corneal status, infection assessment, excessive inflammation, IOL position, and IOP. The premium IOL patient may have concerns related to visual function due to his or her increased expectations.

In most instances, visual function concerns will be due to one of two issues,² the first of which is corneal integrity and the second is pupil size. Both are readily identified with slit-lamp examination and should be explained to the patient. In some instances, the use of a rewetting drop is helpful to demonstrate the improvement the patient will experience once the transient impact of the surgery dissipates. Additionally, the near capabilities of the premium IOL are typically not as robust as expected until the second eye has

"The 2-week visit is crucial in the sense that the second eye's surgery has been completed, and the patient now has to begin the process of neural adaptation."

been completed.³ Therefore, unlike with traditional IOLs, it is sometimes necessary for the clinician to review the expected progression of visual performance that the premium IOL will provide even at the 1-day visit.

The 2-week visit is crucial in the sense that the second eye's surgery has been completed, and the patient now has to begin the process of neural adaptation, which is essential for optimal performance of the IOL. At this visit, the clinician needs to examine the second eye, which is typically at its 1-day visit for the normal issues previously discussed, and assess the first eye for refractive status as well as ocular health concerns. The refractive status plays a critical role in the patient's visual performance and satisfaction.

2 WEEKS TO 3 MONTHS POSTOPERATIVELY

Most clinicians will see the patient again at the 4-week mark to examine the initial surgical eye, which will be the 2-week visit on the second eye. This postoperative visit should include an evaluation of basic ocular health issues such as IOP, IOL position, and the anterior chamber reaction. If any of these findings are abnormal, they should be treated as they would be in any traditional IOL patient. Additionally, at this visit, a detailed assessment of refractive status including an examination of the patient's distance and near function in both photopic and mesopic conditions should be performed to determine the IOL's functional status.⁴ At this visit, many patients have begun to successfully adapt to the new optics and need only encouragement or advice on how to maximize per-



WHAT TO LOOK FOR AFTER SURGERY

Day One

- Measure visual acuity
 - Test all distances if the patient has a presbyopia-correcting IOL
- Look for a quiet anterior chamber
- Continue antibiotic, steroidal, and NSAID therapy
- Treat dry eye aggressively

One Week

- Patient should demonstrate greatly improved visual acuity
- Look for a quiet anterior segment
 - If edema persists, consider gonioscopy
- Taper off the postop eye drop regimen
- Maintain aggressive dry eye management

One Month

- Patient should have bilateral lenses
- Conduct a dilated fundus examination to check for cystoid macular edema
- Discontinue drops
- Prescribe spectacles, if necessary

Three Months

- Check visual acuities at appropriate distances
- Survey patients for their satisfaction

When to Refer Back to the Ophthalmologist

- Posterior capsular opacification
 - Treated with a Nd:YAG laser
- Persistent tear film abnormalities
 - (unless you are comfortable managing it)
- Residual refractive error if the patient is interested in a surgical solution

formance, such as using proper lighting and focal distance and enhancing the ocular surface with topical lubricants while the cornea completes the healing process.

Other patients may be struggling at this point and need a more detailed assessment to determine why the lens' performance is not optimal.⁵ There are multiple causes of suboptimal performance at this visit, and they can be conveniently grouped under the *Four Cs*. Using this system, the clinician can organize the approach to diagnostic assessment and define a plan to create maximal IOL's performance.

The *Four Cs* are cylinder, cornea, capsule, and cystoid macular edema (CME). They constitute the key areas that affect the function of premium IOLs that may not have played a role in creating symptoms in patients with monofocal lenses.

CYLINDER

Cylinder is euphemistic for residual ametropia, because most surgeons can produce outstanding IOL calculations with systems like the IOLMaster (Carl Zeiss Meditec, Inc., Dublin, CA) or the Lenstar (Haag-

Streit AG, Köniz, Switzerland), and significant spherical deviation from outcomes is rare. With typical monofocal lenses, a small refractive variation (eg, +0.25 -0.75 X 090) is usually of little impact. It is important for the clinician to understand that, in the premium IOL patient, even a minimal error as stated previously, can cause a significant variation in how well the IOL works. Because patients expect not to wear glasses, residual ametropia will need to be managed in most individuals. This is typically done by referring the patient back to the surgeon for either a limbal relaxing incision or a laser procedure (LASIK or PRK).

CORNEA

Cornea implies the need for a healthy functioning ocular surface to prevent a decrease in contrast function, which is important to the lens' performance. Although traditional IOLs can be affected by corneal health, premium implants are extremely dependent on the presence of a healthy tear film. This creates a need for a thorough examination of the cornea, tear film, and lids including the use of supravital dyes such as Lissamine green staining. Treatment should be directed



TREATING DRY EYE IS IMPORTANT

- All visual fluctuation is due to ocular surface disease
- Dry eye treatment options:
 - Over the counter*
 - Systane Ultra lubricant eye drops (Alcon Laboratories, Inc.)
(preservative-free formula available)
 - Prescription*
 - Restasis (Allergan, Inc.)
- Punctal occlusion

toward the underlying cause, for example, dry eye or blepharitis (see sidebar *Treating Dry Eye is Important*).

CAPSULE

The lens *capsule* is important in the postoperative patient with a traditional implant, but it is crucial in the premium IOL patient. The difficulty for most clinicians is that they have established thresholds for referral back to the surgeon for Nd:YAG capsulotomy that are inconsistent with good outcomes in premium IOL patients. The importance of capsular opacities, folds, or even simple haze cannot be underestimated in the premium IOL patient, and should necessitate a referral back to the operating surgeon for evaluation at even trace levels.⁶

CME

CME is not an uncommon finding in cataract surgery. In premium IOL patients, however, it can be

associated with a significant decrease in performance at levels that are sometimes difficult to ascertain with routine examination of the posterior pole. Instead, optical coherence tomography should be performed to compare pre- and postoperative macular thickness.⁷ Whether this is done at the partnering doctor's office or the patient is referred back to the surgeon for assessment is not as paramount as is diagnosing CME and prescribing an appropriate course of nonsteroidal anti-inflammatory drugs to treat the condition.⁸

CONCLUSION

The introduction of premium IOLs is associated with a new level of clinical technology, challenges, and expectations—unlike few other advances in eye care. To succeed in this exciting arena, practitioners need to understand the new optics, the types of patients who are seeking this technology, and the intricacies of integrated care. ■

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SEE FAR

The natural lens inside your eye. The iris, works just like the lens in a camera. It focuses light on the retina, which is the back of the eye. As you get older, the human lens can become so stiff that light can't focus properly. This is called presbyopia. Sharp images become blurred, and reading at night is more difficult. Reading glasses or bifocals that correct for simple tasks no longer work. These problems have been described as "age-related changes."

SEE INTERMEDIATE

As you get older, the lens of the eyes, and neither diet nor exercise can be prevented. Some medications can also contribute to cataract formation. To treat a cataract is with surgery. The surgeon removes the clouded lens and replaces it with an artificial lens. This restores your vision, and, in many cases, improves your quality of life.

SEE NEAR

As you get older, the lens of the eye becomes stiffer. This is a condition that could prevent you from being able to see objects clearly. You may find yourself holding a book or newspaper further away to read it? The condition is called presbyopia. It affects everyone. If you have presbyopia, you may want to consider AcrySof® ReSTOR® lenses.

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"I see far, I see close. It's unbelievable."
—Anne S., Ohio

the details first.

Questions to ask

What are the benefits of multifocal lens surgery and how does it differ from a monofocal lens? Am I a candidate for a multifocal lens? How long will it take to see the results of multifocal lens surgery? Is multifocal lens surgery right for me?

For more information, visit www.alcon.com

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The Alcon AcrySof IQ ReSTOR IOL patient education brochure.

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