

# Impact of ORA on Refractive Cataract Surgery and the Premium Channel Offering

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**Intraoperative Aberrometry**, a term describing the use of a wavefront-sensing device during cataract surgery, has been available in the US since 2008. First commercialized as the ORange® System, developer WaveTec Vision (Aliso Viejo, CA), has continued to develop the technology through a series of software and hardware modifications to improve utility of the device during cataract surgery. Its ORA System® was launched in late 2011; since that time, the company's installed base of sites and users has expanded nearly five-fold.

SM2 Strategic was asked to conduct a survey of ORA users to better understand the impact of the technology on the cataract practice. Given that ORA is a technology that surgeons are using to enhance their premium refractive cataract practices, most surgeons using the device are performing refractive cataract surgery as part of the "premium channel" offering to patients in their practice.

This survey focused on how ORA is influencing surgeon behavior in the operating suite and, consequently, how surgeons are using the device to make refractive cataract options more attractive to patients coming in for surgery. Of 215 surgeons invited to participate, 47% (101 of 215) provided data in an online survey.

Twelve surgeons also took part in a telephone interview to further understand surgeon motivation to acquire and use ORA. Additional demographics of the survey sample can be seen in Table 1. The key findings can be summarized into three main themes, each of which will be explored in the following sections:

## From Niche to Mainstream

Initially offered as a "pay per use" technology that would cost \$150 per case, the first surgeon users tended to be highly selective and used the technology on patients

**Table 1: Surgeon Demographics**

<b># Surgeons in Survey:</b>	<b>101</b>
<b>Cataract Cases per Month:</b>	
Average No. of Cases:	73
Range:	8 to 350
<b>Orange/ORA Cumulative Experience</b>	
Average No. of Cases:	365
Range:	10 to 4,000

**Table 2: Percent of Time ORA Affected IOL Power Selection**

<b>n = 21</b>	<b>90-100%</b>
<b>n = 35</b>	<b>50-80%</b>
<b>n = 25</b>	<b>11-50%</b>
<b>n = 9</b>	<b>DK/NA</b>
<b>n = 8</b>	<b>&lt; 10%</b>
<b>n = number of surgeons</b>	
<b>Average Among Surgeons = 59%</b>	

receiving toric IOLs and/or presenting as post-refractive patients. In 2010, the company changed its business model and now allows surgeons unlimited use of the device for a fixed monthly fee of \$3,000. (Note: in both models, the device was first acquired as a capital purchase or lease). This revised approach widened the appeal to surgeons; survey respondents perform anywhere from 8 to 350 cataract cases per month and use ORA on a population of patients that include all patients having refractive cataract surgery. Some surgeons have opted to use the ORA reading as a quality control checkpoint on IOL selection over a wide range of cases.

All surgeons continue to perform pre-operative diagnostics and begin surgery with an IOL selection. However, when they use ORA, they

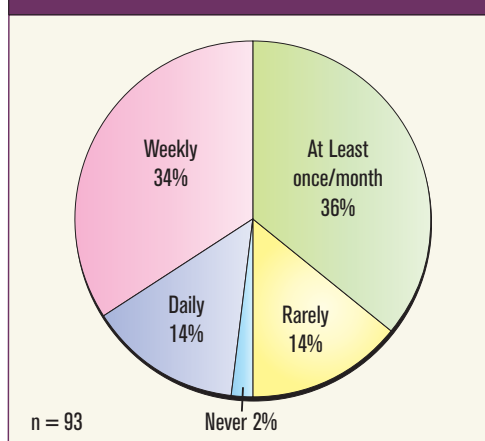
are then modifying the surgical plan based on the intra-operative ORA recommendation the majority of the time (59% across the survey sample). Further segmentation of the surgeon sample reveals that 1 in 5 surgeons do this 90% of the time or more when using ORA.

According to Denise Visco, "I tell my patients, 'I am

15% more accurate in selecting your IOL when I use ORA versus when I do not.' I tell other surgeons that you get better at it the more you use it." The distribution of usage of ORA over pre-op readings is shown in Table 2.

Similarly, the ability of ORA to prevent a refractive surprise from taking place is occurring with greater frequency. As shown in Figure 1, 14% of surgeons reported that ORA has kept them from choosing the wrong lens "a lot," meaning every week and perhaps daily. Another 34% of surgeons indicated this was occurring

**Figure 1: Frequency of ORA Saving Surgeons from Refractive Surprises**



“regularly,” meaning once per week. Only 2% of surgeons said that ORA has never prevented a refractive surprise.

“I strongly recommend ORA,” noted **Michael Woodcock**, who has used ORA in more than 3,600 cases. “It’s required for post-refractive patients and I will not perform surgery on them if they aren’t willing to have ORA.”

**Mitch Jackson**, with nearly half his cataract volume being post-refractive patients, agrees: “ORA changes outcomes. I am using it on all my post-refractive surgery cases so as not to worry about what we used to think of as ‘difficult’ cases. Fewer enhancements mean less chair time and less time spent on ‘fixing’ the primary procedure with either an IOL exchange, piggyback IOL, LRIs, and/or laser vision correction (PRK or LASIK), all of which lead to additional patient dissatisfaction.”

### The Learning Curve

This utility is achieved only with commitment and focus by the surgeon to understand the technology and how to use it. **Kevin Waltz** contends “you will adjust surgical technique as you learn how your technique impacts the refraction. This takes time, but it’s well worth it and you will find it impossible to give up (ORA).” Surgeons were asked about their learning curve; 38% of surgeons felt comfortable within the first month or 30 cases, while 10% say they are still in their learning curve. “It takes 2-3 months to get used to it; you have to have faith, and you come to realize how heavily you have relied on IOLMaster and OPD,” remarked **Jonathan Solomon**. “Having this tool available during surgery has allowed me to be much more aggressive in treatment.” The range of responses is shown in *Figure 2*.

### The Numbers Make Sense

Given the elective nature of the patient’s decision to have ORA as part of their cataract surgery, surgeons need to determine the value of intraoperative aberrometry and how much to charge for this added component of premium cataract surgery.

70% of surgeons offer ORA as a separate line-item; 21% do not break out the fee and choose to include it

with other services. The remaining 9% of surgeons do not include a charge for ORA in refractive packages either because of limited access (e.g., ORA is only available at a secondary surgery center) or have chosen to use it on all patients without charging separately for it.

The average fee, weighted across all surgeons in the survey regardless of whether or not they have a separate fee, was \$337 per eye.

Surgeon conversion of patient interest to a toric or presbyopic implant has increased significantly, moving from 31% to 38% of all cases (see *Figure 4*). “ORA gives me a lot more confidence, especially with the toric lens. I feel more comfortable treating post-refractive eyes as I am better able to triangulate thoughts with other diagnostics,” said **Richard Burns**. “My results overall are better with ORA.”

Likewise, surgeon time spent managing unhappy patients and performing associated enhancements has changed significantly, decreasing from 10%

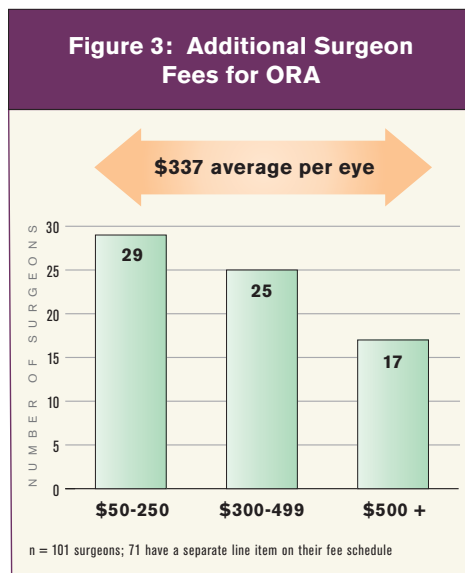
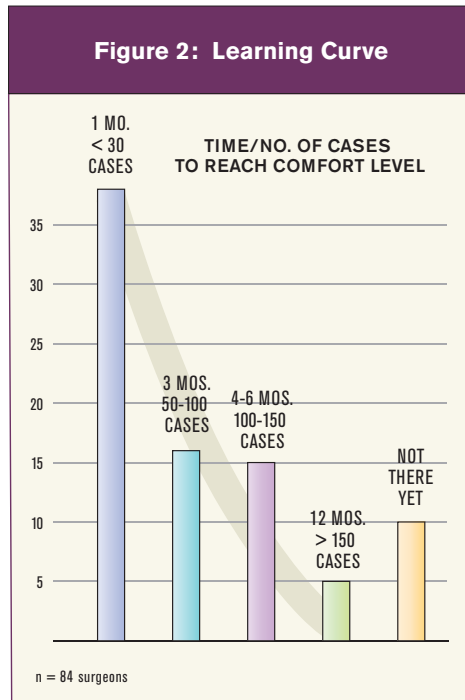
to 5.3% of cases on average (see *Figure 5*). For some surgeons, the overall enhancement rate has not changed dramatically; while the tighter results have reduced the need for enhancement, the better outcomes have led to surgeons being more aggressive overall during primary as well as

enhancement cases as a function of greater confidence throughout the process.

### Time Efficiency

A concern of some surgeons has been impact on patient flow and overall time spent in the operating room. There is a wide variety of surgeons’ reports of how much time is added. Some say it adds only 15-30 seconds, while others say it doubles the time to perform a 5-6 minute case. “It takes me five extra minutes per case, which means the outcomes have to be much better, which they are,” remarked **Kevin Waltz**.

**Maria Scott**, who routinely does 40 cataracts in a session, initially saw efficiency drop with ORA from 5.5 cases to 4.5 cases per hour. A software upgrade in August 2012 made a big improvement in capture and processing time, and case flow is now back up to between 5 and 5.5 cases



per hour. “My partner and I struggled with the original hardware (ORange); I didn’t like it very much. The ORA System and the upgrade have been a complete turnaround. I’m much more confident and now offer LRI (for a fee) along with ORA; the results are that good.”

### Expanding the Category by Creating Value

In refractive cataract surgery, ORA is not being used by itself but typically in combination with one or more elements that together comprise the premium channel category of cataract surgery. Along with other advanced diagnostics and the femto-second laser, surgeons are using ORA to make better decisions around IOL power and placement. These tools work synergistically to improve outcomes, the core premise of refractive cataract surgery.

Surgeons in this survey reflect a sense of optimism about the contribution of ORA to their field. **Nicolas Batra**, whose practice has doubled in size in recent years, says the addition of ORA has made a meaningful contribution to the premium segment: “Patient acceptance of our premium offering has grown tremendously and gave me the resources to buy the FS laser on my own. I believe that ORA is the new ‘gateway’ for refractive cataract surgeons.”

### Is ORA Worth It?

Analysis of the data from the open-ended comments added by surgeons and from the interviews make clear that the investment of time and money into ORA is well worth it and justified by the improvement in outcomes. Surgeons have come to trust the readings taken during surgery, and the resulting outcomes have led to increased “confidence”, “comfort” and “trust,” words which appeared in responses from 41 of the 72 surgeons who wrote them in on the survey. The positive comments span a wide range, including that ORA is an “essential surgical step” and that “taking the extra

time in the OR to get it right the first time is worth every second.”

According to **Rob Weinstock**, who was one of the very first users of the ORange System and works closely with WaveTec’s engineers to improve the platform, indicated “ORA is now much more bulletproof. Surgical outcomes are better and the bar is being raised. This can be leveraged in the exam room and in the community, which creates a very high value proposition for surgeons.”

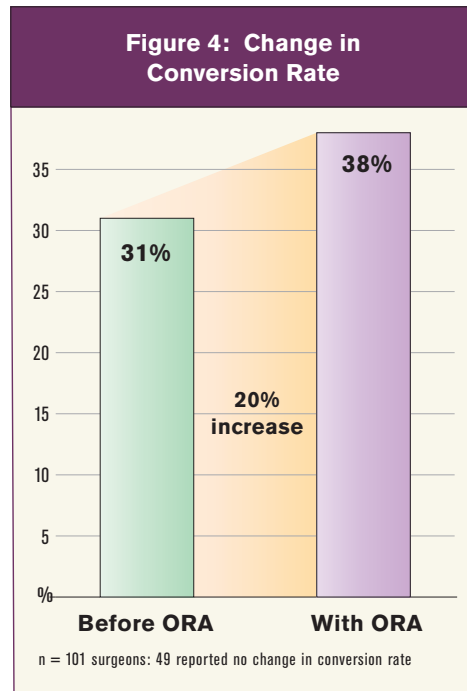
### Discussion

There is little question that the addition of ORA has meaningfully impacted the surgeon’s ability to communicate the benefits of refractive cataract surgery. Surgeon confidence from improved outcomes is translating to what is discussed during pre-operative education and counseling. As a result, patients better understand the value of refractive cataract surgery and accepting that they will share in some of the cost directly in order to achieve the results associated with premium cataract surgery.

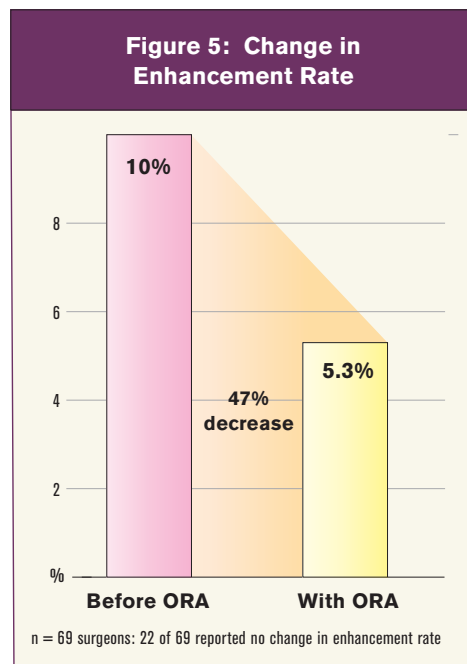
The survey data are very clear in showing how this “product promise,” and ORA’s role in helping achieve it, is increasing acceptance for the premium segment within cataract surgery.

Like all new technology, there is a learning curve associated with ORA. The path to successful integration by cataract surgeons needs to avoid the “plug and play” mind-set enabled by some of today’s medical devices. ORA is a powerful tool that provides something surgeons have never before had: refractive data to make decisions during surgery that differ from pre-operative planning and can meaningfully impact patient outcomes. “Surgeons must pay attention when first starting,” noted **John Berdahl**. “They need to respect the art that comes along with this technology.” There is also a cost associated with integrating the device, in terms of time and money, but the overwhelming sentiment of users

is that it is well worth the investment and requirement to adjust surgical thinking as part of the process.



*“taking the extra time in the OR to get it right the first time is worth every second.”*



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While some of the improvement observed with regard to fees, conversion rates, or enhancement rates may be attributable to other factors besides ORA (e.g., a more educated staff, the presence of a femtosecond laser), one gets the sense from the interviews and the open-ended responses that ORA is carrying its weight in terms of its value relative to its cost. This holds true both on a relative basis (when compared to the cost to obtain a femtosecond laser) and on an absolute basis (when compared to outcomes obtained prior to having ORA). As more and more of these technologies find their home in the refractive cataract practice, it will become increasingly difficult to precisely determine the exact contribution of each.

As an alternative, refractive cataract surgeons need to look at the overall picture and the ability to drive out-

comes, safety and demand for advanced technology that is not a covered service. This perspective is similar to that shared by Rob Weinstock: “How does anyone do refractive cataract surgery without all this technology? This is where it's all going.”

“All this technology and its automation of certain steps allows the surgeon to spend time thinking and doing other things to make results even better,” commented **Jonathan Talamo**. “ORA readings cause me to really understand the impact of every move I make during surgery.”

In terms of the future, ORA's relationship with other devices – diagnostic as well as laser – is symbiotic in nature. Each one supports the other. As more surgeons adopt ORA, it will be exciting to see how the bar gets raised even further in helping cataract surgery achieve refractive outcomes.