Trends-in-Medicine

April 2009

by D. Woods

SUMMARY

♦ The recession is hurting most practices, and many refractive doctors have already transitioned to other procedures, such as cataract and glaucoma surgery, cut spending for new equipment to little or nothing, and reduced salaries and staff hours. Reimbursement continues to be a problem. ♦ Refractive surgeons are making do with their current lasers and not buying new ones. Although doctors like the Alcon Wavefront technology, they said it is expensive. ♦ Premium IOLs were the hot topic at the meeting, but they are still being put in a small percentage of patients (<10%) because of their cost. Alcon's ReStor +3.0 was getting the most attention, followed by AMO's Tecnis. Both will likely cannibalize their own prior lenses, though ReStor may take some market share from Bausch & Lomb's Crystalens. No doctors interviewed currently use AMO's ReZoom. ♦ Doctors are delaying getting electronic medical record software for as long as they can, citing unreasonable expense, no advantage for their patients, and lack of standardization. ♦ A new ASCRS task force on LASIK safety, scheduled to publish its results later this month, reinforced the safety of LASIK.

Trends-in-Medicine
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AMERICAN SOCIETY OF CATARACT AND REFRACTIVE SURGERY (ASCRS)

San Francisco, CA
April 5-7, 2009

The 33 cataract and refractive surgeons interviewed at ASCRS (28 U.S., 5 OUS) said that the LASIK market has experienced as much as a 50% drop in procedures, while other ophthalmologic procedures are flat to slightly up. As the refractive side suffers, ophthalmologists are concentrating more on cataract and glaucoma procedures, including premium intraocular lenses (IOLs), which are high dollar items. Alcon's new ReStor +3.0 appears to be the winner in IOLs. A few items of new technology were getting a look, but there were no new blockbuster products at the meeting.

The economy

Most ophthalmologists said that the recession is hurting their practices, and they don't believe the economy has hit bottom yet. Dr. Richard Lindstrom, immediate past president of ASCRS and part of a large diversified practice of optometrists and ophthalmologists in Minnesota, said, "While LASIK is down, everything else is up. Cataract procedures are the primary savior, and that helps a lot. Glaucoma and keratotomy are flat but not down. Cataract procedures are up almost 20%, so the overall practice is not far from the national average of 8%-10%."

Comments about the economy included:

- *California:* "The economy is bad, refractive is hurting, and cataract practices are growing because of the aging population."
- *Arizona #1:* "I'm doing badly in refractive, but steady in everything else."
- *Arizona #2:* "Business is down in refractive, but volume is stable in other areas. Seasonally, the first quarter is supposed to be very strong, but it wasn't this year."
- *Indiana:* "The healthcare business is not recession proof. People are not spending money. They're not buying a second pair of glasses or contact lenses. So far, we are stable. I've lost in LASIK and cosmetic (procedures), but business has increased slightly in other areas."
- *New Jersey:* "My business is doing well. Most discreet income is in the hands of the elderly."
- *Iowa:* "It's been rough. Both cataract and LASIK are down, and you just hope that it doesn't get worse."
- *Ohio #1:* "Business didn't decline in 2008 compared to 2007, but it declined in 2009 compared to 2008."

- *Arizona #3:* "Refractive is dying."
- *Ohio #2:* "Refractive is drying up because of the economy. People are just not buying."

Asked how they are coping with the continuing recession, ophthalmologists said that they are looking hard at what they spend money on, if anything. Some are cutting back on staff hours and cutting salaries. Refractive surgeons are expanding their practices to include other procedures, including implanting premium IOLs, which they see as potentially lucrative. Dr. Lindstrom said, "We are much more careful about adding any increased costs. We have conferences about hiring any new employees and have discussions before we buy any new equipment. We bought another Pentacam (from Oculus) and are looking at a Lumera (Carl Zeiss Meditec) microscope, but this year that's about it…Refractive is down 30%-35% for us. Refractive surgeons are getting crushed, and some are going broke. Some are going into cataract surgery and other areas of ophthalmology because they are still ophthalmologists."

Other comments on coping strategies included:

- *Georgia:* "There is a feeling of despair on the part of some of our colleagues, but there is a ray of hope. When LASIK is down, cataract work and glaucoma work are up. A lot of refractive doctors learned in the beginning of the decade that they needed to diversify, and that is how they have survived."
- *Arizona #2:* "I'm cutting overhead and concentrating more on cataracts to buffer the drop in refractive."
- *Indiana:* "I'm working a little harder. I'm not laying off people or reducing salaries, like some of my colleagues. But one thing new that I'm doing is looking at the numbers every month, and I didn't use to do that."
- *Iowa:* "Everyone has to adapt and evaluate where money is being spent. We don't want to cut employees."
- *Ohio #1 (primarily refractive):* "We are moving into the lens area, with premium IOLs, presbyopic correction, and astigmatism. We're good at refractive surgery, and it's spilling into other areas."
- *Arizona #3:* "I am doing more cataract procedures, such as presbyopic IOLs and toric IOLs, and I am starting to do cataract surgery."
- *Ohio #2 (primarily refractive):* "I am getting back into cataracts. I have to move into other areas and…scoop up the patients left over."
- *Ohio #3:* "Everyone is tightening their belts. Staff has taken a 5% cut in pay, and hours are down from 40 to 32. We are doing it because we don't want to have to let anyone go in nine months. We are also switching the practice to things that are recession-proof. We are getting our large laser center to switch to cataract surgery."

Refractive surgery

Ophthalmologists said that LASIK procedures are down an average of 40% in 2009 vs. 2008. As a result, they are not investing in new lasers. An Ohio doctor said, "Refractive has fallen by half. It's our biggest hit since 2001." An Arizona surgeon said, "Alcon's last laser is now obsolete, but companies are reluctant to make something that costs a lot of money and which is a 'must have' because we would resent that."

Abbott Medical Optics' (AMO's) Visx remains the dominant excimer laser. Ophthalmologists were familiar with Alcon/WaveLight's Allegretto, but no one is buying. An Arkansas doctor said, "I bought a LASIK (Visx) machine, and I have to ride that horse until it's dead. It's expensive, and doctors don't want to change." Surgeons agreed that Wavefront and Wavefront-optimized are both excellent procedures.

Dr. Lindstrom serves on an ASCRS LASIK safety task force, which was formed in response to patient complaints. The task force conducted a global literature review, and the results will be released in ***Ophthalmology*** in April 2009. The task force looked at 20 studies and 200 eyes and found 95.4% patient satisfaction and 4.6% dissatisfaction. The most common cause of dissatisfaction was residual refractive error – ~3% of the 4.6%. The study also found 1% dry eye and 1% night vision symptoms. Dr. Lindstrom said, "For night vision, custom LASIK responded to that. These data were compiled before custom Wavefront optimization. All in all, if you compare this to other surgeries, such as breast augmentation, which has 95% satisfaction, the only thing that beat LASIK satisfaction was Botox (Allergan, botulinum toxin A). However, there is room for improvement."

Cataract surgery

Cataract procedures are expected to grow an average of 7% in 2009 compared to 2008 because of the aging population and because refractive surgeons are adding more procedures (including cataract surgery) to their practices. A North Carolina surgeon said, "My practice added 85 intraocular cases, transplants, and IOLs." A Minnesota surgeon said that his group practice's cataract volume is up 20% in 2009 vs. 2008.

In this environment, Carl Zeiss Meditec's IOLMaster, which provides precise measurements for IOLs, was getting a lot of attention.

Premium IOLs

Most of the buzz at ASCRS was about premium IOLs, with the AMO and Alcon booths – situated close to each other – competing for doctors' attention. The booths were swarming with reps, and Alcon had a steady stream of speakers almost every day. Alcon also had one of the best coffee bars on the conference floor.

Premium IOLs were the topic at two dinner symposia, and both were packed with perhaps 1,800 guests total. Surgeons said that premium IOLs are one area where there is money to be made. An Ohio surgeon said, "I get $130 per lens, and the company makes $900 per lens, so there is a huge incentive there for everyone." An industry source said, "Our doctors are saying that this is one of the few ways that they can survive – doing premium IOLs. They're using Alcon's ReStor +3.0 and Bausch & Lomb's Crystalens (an accommodating lens)."

Despite the attention to premium IOLs, several doctors said that they won't use them – yet. A Texas doctor said, "I won't try them. I'm too conservative. I use the (monofocal) Alcon IQ for cataract patients. I'm not the leading edge, but I also don't fall off (I don't take risks)." An Oregon doctor said, "I have limited use of multifocals because I am very conservative." A Virginia surgeon said, "I'm not doing any multifocals now, but if I do, it will probably be Crystalens. I don't like the science of ReStor or ReZoom."

Ophthalmologists appeared most impressed with Alcon's new ReStor +3.0 multifocal IOL (mIOL). The ReStor +3.0 has a near power zone of 3.0 D (diopters), providing better intermediate vision than the older 4.0 version. Doctors said that AMO's new Tecnis mIOL, approved by the FDA in January 2009, looks promising, but only a few have had a chance to try it so far. Ophthalmologists who are already using B&L's Crystalens HD are happy with it, but some said that they will switch to ReStor +3.0 if it works as well as the company says it does.

Ophthalmologists estimated that their premium IOL use currently is split fairly evenly between ReStor and Crystalens, with <5% still using AMO's ReZoom. They predicted that in 6-12 months, ReStor will have an average of 55% of the market, Crystalens will have 36%, and Tecnis will have 9%.

Although sources agreed that the Tecnis multifocal IOL looks promising, only three U.S. doctors said that they have used it. All of the doctors using it like the lens, although one added that he likes ReStor much better. A refractive surgeon who is starting to do cataracts said, "The advantage of Tecnis (over ReStor) is its full diffusion, providing one diopter compared to ReStor's two or three diopters. There is more range with Tecnis and less diffraction." A surgeon whose practice used Tecnis in clinical trials said, "One of my colleagues liked it so much that she switched from Crystalens HD totally. She thinks that there is some higher quality near vision, and distance and intermediate vision are 'good enough.'" A Midwest surgeon said that the new Tecnis lens "is most comparable to ReStor +4.0. Tecnis stays the same across the board, so reading a menu in a dark place is better with Tecnis, but ReStor +4.0 is better on the highway." A ReStor +3.0 fan asked, "But how important is it to patients to be able to read a menu in a dark restaurant?"

Several surgeons said that they would not use the new Tecnis' lens because of their past experience with other AMO lenses. A California surgeon said, "I won't try it because of my bad experiences with Array and ReZoom." A Georgia doctor said, "I haven't used it. It looks promising, but I prefer ReStor +3.0. I had problems with ReZoom that were glare-related, and I'm a little reluctant to try the new Tecnis lens." A doctor who was an original Tecnis user in 2002 said that he doesn't use it now but may start using it.

Most surgeons said they don't know where Tecnis will fit in their practices. An Ohio doctor said, "It will find a place. Education is the key. Only 7% of doctors use (premium) IOLs. In my practice it is 20%, and some doctors are going to be 50%. As we get better at educating the public and helping with patient financing, IOL use will grow."

Although several doctors said that they would probably use Tecnis to some extent, most said that they are using – or will use – ReStor +3.0 before trying Tecnis. A California doctor said, "Although Tecnis looks promising, and I will probably use it if it's as good as they say, Alcon has the edge because the ReStor +3.0 was approved first." An Arkansas doctor said, "Tecnis will have a hard time competing with ReStor +3.0."

ReStor +3.0 received the most attention at ASCRS, and doctors generally agreed that it is a major improvement over the ReStor +4.0. An Indiana surgeon, who was the first surgeon to implant the ReStor +3.0 in his state, said, "I use it and am very happy with it. They fixed the problems with the 4.0, and the 3.0 gives patients a range (of vision) with no issues." An Arkansas ophthalmologist said, "ReStor +3.0 is the best choice. It is the easiest to implant and has the best depth of field. Instead of underpowering the patient with 4.0, you can give the exact power the patient needs to see in the distance." An Ohio surgeon added, "ReStor +3.0 is a great improvement, but it is not perfection. It is a huge step in the right direction, and the technology keeps getting better."

Other comments about premium IOLs included:

- *Georgia:* "I use ReStor +3.0 exclusively now. It will be the standard of care…I have some patients who can thread needles with ReStor +3.0."
- *Nebraska:* "I love ReStor +3.0 and will use it."
- *New Jersey:* "If I were having surgery, I'd have the ReStor +3.0. I have operated on everyone I play golf with and used the lens. It is designed intelligently. As the pupil gets larger, more of the light is focused for distance. What if the patient who has a big pupil has a ghost image or unfocused light? I measure the pupil diameter in every cataract patient I do, preoperatively. The most important measurement is when they read. I love it when the pupil diameter is 2.5 or less. The patient will read great, with no ghost image…Tecnis works better in the dark. They say that you can read a menu in the dark (with Tecnis). The question is, does it matter? With the ReStor lens, intermediate and near vision are now hugely better."

- *Brazil:* "I used ReStor +3.0, and the results were very good. We use only that lens, and we use it in both eyes. So far, the lens is fantastic. Yes, there are complaints, but the complaints are fewer."

Ophthalmologists said that ReStor +3.0 and Tecnis will cannibalize ReStor +4.0 and ReZoom, respectively, and Alcon may even take market share from AMO and Bausch & Lomb. An Arkansas doctor said, "My preference is Alcon. AMO lenses are nice, but difficult to get folded. My technician struggled with them and destroyed six lenses over the last two weeks." An Ohio surgeon said, "Right now, our use of Tecnis, ReStor, and Crystalens are split equally…In six to 12 months I see it half and half between Crystalens and ReStor +3.0, and we will have happier patients." A Pennsylvania doctor said, "Our use in six to 12 months will be 60% ReStor and 20% Crystalens."

Several doctors predicted that ReStor +3.0 will take market share from Crystalens. An Oregon cataract surgeon said, "I am uncomfortable about the variability of the Crystalens. It moves around. It is not refractive. You don't lose contrast, but there are instability issues." A North Carolina surgeon said, "I just started using ReStor +3.0, and I'm very optimistic about it. I think that it will eat into the Crystalens business. I haven't used Tecnis, but I may try it. Everything I have heard, though, is that the ReStor lens is better than the Tecnis lens." A New Jersey surgeon said, "I don't know why anyone would use Crystalens. The glare and halo are the same as for the multifocals, there is no UVA, and it's unpredictable. It doesn't have better distance vision than ReStor, and it has worse vision in pupils of 5 mm or greater." An Arkansas doctor said, "Crystalens doesn't give you what it promises. The old Crystalens implant I wouldn't put in my worst enemy. As for putting it in, it's like putting a spider into a Coke bottle. And if you want to take it out, the legs get all hung up. Good luck taking it out unless you're Houdini." A hospital owner from the Netherlands swore that he would never use Crystalens again, "We used it, and it was a major business disaster. It stopped working after a year. Patients got capsular fibrosis, and we had to give back a lot of money. It was a total and complete disaster."

Other comments included:

- *Indiana:* "ReStor +3.0 will definitely grow. I used to use Crystalens mostly. I have more success with the 3.0. Crystalens was not as predictable for me."
- *Michigan:* "I use Crystalens and ReStor now, more Crystalens than ReStor. But when I start using ReStor +3.0, it'll probably surpass Crystalens."
- *Minnesota:* "We like to try new things in my practice, so things may change in six months. It's not uncommon to see a shift. For presbyopic IOLs, Crystalens HD is No. 1, followed by Tecnis and then ReStor. We haven't had much experience with the ReStor +3.0 though, and we will have to see."
- *North Carolina:* "Of the small percentage of patients getting premium IOLs, it will be Alcon 80% and Crystalens 20%. No one uses ReZoom, and I'm not sure that Tecnis will be able to make many inroads."

ASCRS survey. Dr. David Leaming from Palm Springs CA conducted a 2008 survey of ophthalmologists and found that 82% of doctors implanted ReStor, 42% implanted ReZoom, and 53% implanted Crystalens.

Interesting technology

A number of new technologies and procedures were attracting attention at ASCRS, including:

➢ **Phacoemulsification machines.** The brightest spot for equipment manufacturers may be phaco machines. Despite the recession – and in some cases because of it – ophthalmologists are interested in the newer phaco machines, particularly AMO's Signature and Bausch & Lomb's Stellaris. One ophthalmologist described the new machines as more stable and a bit more comfortable to use than earlier versions. Three surgeons said they are looking to buy a new phaco machine. A Texas surgeon said, "The phaco machines are looking much better. We are expanding and have to buy one, and we are looking at the AMO and B&L units." He added that he wasn't as interested in Alcon's Infiniti because it is "three- or four-years-old."

Carl Zeiss Meditec's new phaco machine was launched in India and is primarily for the emerging markets. It is not for sale in the U.S., though it was on the exhibit floor at ASCRS.

➢ **Calhoun Vision's photosensitive silicone intraocular lens.** This technology was developed by researchers at the University of California, San Francisco, and Cal Tech in conjunction with Calhoun Vision. The lens can be adjusted non-invasively, weeks after surgery, with a low power source of light to eliminate refractive errors post implantation. An Ohio surgeon said, "This is a silicone implant that has special monomers in it that shines light and polymerizes and changes the shape of the lens inside the eye. It is attracting attention in Europe, and it is in FDA trials now at two centers. It could change the way we do cataract surgery."

➢ **Phakic IOLs.** A few surgeons mentioned AMO's Verisyse phakic IOL, but no one interviewed is using it yet. Another doctor said that Lenstec's Tetraflex will be similar in some capacity to Crystalens, but it doesn't have the folding elbow. Hoya is coming out with a similar lens. As for Staar's Visian ICL, few surgeons have used it. A Georgia surgeon said, "I was trained to do anterior chamber lenses, and I still like that the best. Visian causes non-visual-impairing cataracts, but that small number is still significant to those who get them…I understand that Alcon is doing European studies on its anterior chamber lens." A few doctors mentioned Carl Zeiss Meditec's Acri.Lisa, a premium presbyopia-correcting multifocal IOL, not yet approved in the U.S., as promising.

➢ **Endoscopic Cyclophoto-coagulation** (ECP). ECP offers a way to treat glaucoma at the time of cataract surgery. It uses a diode laser and fiber-optic light to reduce pressure from inside the eye and to reduce the need for glaucoma medications.

➢ **Presbyopia surgery.** Another hot technology uses an excimer laser to make cuts inside the cornea to correct presbyopia. A surgeon said, "It is a big change in refractive action."

➢ **Optical coherence tomography (OCT).** A few doctors mentioned that the newer OCT devices look promising.

➢ **Yag lasers.** An Ellex sales rep said that doctors are becoming interested in more precise Yag lasers for procedures after surgery, "Our Ultra Q Yag is not new, but there's a lot of interest because it has a level of precision that no other Yag can do. With some of the premium IOLs, there is a Yag laser follow-up after surgery, and doctors are finding that they have a different type of patient, who is less tolerant of accidental damage to the lens in the follow-up procedures. Our Yag delivers that level of precision."

Electronic medical records (EMRs)

One feature of the economic stimulus package is aimed at getting more doctors and hospitals to adopt electronic medical records, but ophthalmologists are in no rush to get an EMR for their offices. The government is offering incentives worth up to $44,000 for doctors who utilize an EMR. Those incentives don't start until January 2011 and are paid out over five years.

- In Year 1, the incentive is $15,000-$18,000; Year 2 $12,000; Year 3 $8,000; Year 4 $4,000; and Year 5 $2,000. This averages to ≤$8,800 per year.
- To receive the ***full amount***, the EMR must be implemented by 2012. To receive any incentive payments, the EMR must be implemented by 2014.
- Medicare reimbursements will be reduced for doctors not using EMRs: by 1% in 2015, 2% in 2016, and 3% in 2017.

Ophthalmologists at ASCRS generally questioned the ethics of EMRs and expressed resentment about being told by the government that they will have to switch to EMRs and e-prescribing. Most doctors said that they are stalling, not planning to make any decisions until the last minute (2012 or even 2015). Only two doctors said that their practice already has EMRs, and only one said that he plans to buy EMR and e-prescription software before 2011.

Ophthalmologists said that they are waiting to adopt EMR software because of the lack of standardization, and they are waiting for the best programs to shake out. They generally know about the provisions in the government's financial incentive plan, but they aren't jumping into the area yet. They also argued that although EMRs may eventually be a time saver, the first few years won't be very efficient. Doctors generally agreed that the money that they spend on EMR software won't help their patients. Comments included:

- *Arkansas:* "Electronic medical records will be shoved down our throats. They will be a time saver after some time, but you have to hire another person, and the first year or so will be very slow and won't be efficient. The biggest problem is that there is no standardization by the government or by insurance companies. And there are a lot of different companies (making the software), and they are all different."
- *Former ASCRS president:* "We are stalling. First, we don't have a lot of experience. We believe that we will be fully electronic by 2012. We have electronic billing, but we don't have clinical notes. We just don't see this as important for quality of patient care. We will get the software just in time for the government to tell us that we have to do it right now. How do we know which (software) is better? How do I tell NextGen from MedInformatix? Also, we aren't driven to do it, and it won't change quality of care for our patients."
- *Nebraska:* "E-prescriptions don't add to the practice… EMR software will take $60,000 off our bottom line. As for (government incentives), if they want to pay for it, we'll look at it."
- *Georgia:* "We own a system, and we upgraded it, but we resent having to share information with the government. Also, I'm not quite sure that electronic prescriptions are appropriate. It doesn't benefit the patient, but it does benefit the pharmacists."
- *New York:* "EMRs are stupid and intrusive. Is it the best way to control costs? No."
- *Florida:* "I haven't adopted anything because I'm developing my own software for electronic records."
- *Ohio:* "Adoption in ophthalmology is slow. It's challenging because of our high-end imaging and the need to incorporate it. We are close now to buying it, though."
- *Texas:* "At the very heart of this, whether it saves money or not, is the ethical question of sharing patients' records."

One doctor said that he uses the Physician Quality Reporting Initiative (PQRI), a program developed by the Centers for Medicare and Medicaid Services (CMS) that gives a financial incentive bonus to doctors who volunteer to report on best practice quality measures.

COMPANY NEWS

SCHWIND EYE-TECH SOLUTIONS

Schwind sponsored a symposium on a new, innovative method for corneal transplantation called pachymetry-assisted laser keratoplasty (PALK). The procedure is designed for patients

who need corneal transplants and whose endothelium is intact. The major advantages of the treatment are:

- Contact-free method without exerting mechanical pressure on the eye.
- Centering done by the eye tracking system.
- Minimal endothelial loss.
- Safety and reproducibility of the procedure.
- Shorter surgical time.

Dr. Cesar Carriazo of Centro Oftalmologico Carriazo, Colombia, who developed the technique, described the procedure, which eliminates the risks of penetrating keratoplasty and lamellar keratoplasty. A module of the Schwind-Cam software, called PALK-Cam, used with the Schwind Amaris laser, precisely determines the ablation volume of the host cornea based on a detailed pachymetry map. The Amaris then ablates the calculated volume at a high resolution in all dimensions. The technique combines the advantages of lamellar keratoplasty but provides individualized corneal ablation, ensuring homogeneity of residual stromal thickness and leading to better post-surgical visual results. Dr. Carriazo said that treated eyes in pilot studies had an excellent transparency at the donor-host interface, and most had <15% loss of endothelial cells. No rejection of the graft was observed. It was also significantly better centered compared to non-laser based techniques. Dr. Carriazo said, "Patients improved their vision in both quantity and quality and had the opportunity for more effective post-keratoplasty refractive corrections because they gained extra corneal thickness and almost normal corneas in terms of anatomy. The risks are lower than those with the traditional technique since the incidence of complications is very low."

TECHNOLAS PERFECT VISION

20/10 Perfect Vision Operations and the refractive division of Bausch & Lomb have a new joint venture focused on the laser vision correction industry called Technolas Perfect Vision. They are both joint owners of the new company, and the deal was finalized at the beginning of 2009. A company executive said, "We are actively recruiting sites to start working on FDA studies for the Intracor." The device already has 510(k) approval for the flap-making portion and is seeking approval for presbyopia this year.

The new company believes that the future of refractive surgery, beyond the development of new systems and algorithms, lies in the combined correction of presbyopia, myopia, astigmatism, and hyperopia. Its solution is PresbyLasik, excimer correction of presbyopia using the Zyoptix excimer laser and Intracor, a femtosecond laser procedure that provides flapless intrastromal correction using the Femtec femtosecond laser.

CARL ZEISS MEDITEC

The company highlighted several things at ASCRS, including:

- **The Cataract Suite**, an end-to-end cataract approach that will help the cataract surgeons streamline the process from evaluation to treatment to follow-up. It consists of the IOLMaster and Lumera as well as the Visalis phaco machine, the AT.Lisa IOLs, and Callisto operating room management system (which is not approved in the U.S.).

- **The Forum**, an electronic medical record (EMR) solution that collects all of the patient's diagnostic and treatment information in one workstation. Ultimately, it will interface with insurance companies, Medicare, and other healthcare providers.

- **A new treatment approach called "Laser Blended Vision,"** an improved approach to monovision that was discussed by Dr. Dan Reinstein of the U.K.

- **Results from the Smile (small laser incision) procedure.** Dr. Walter Sekundo of Germany presented the largest body of data yet on this procedure, which uses a femtosecond laser to perform the surgery without a flap, removing the lenticle through a small incision.

- **Femtosecond laser.** Zeiss's new 500 kHz VisuMax femtosecond laser was also showcased at ASCRS.

- **A new suite of advanced OCT applications.** The newest version of Cirrus HD-OCT 4.0 includes anterior segment imaging, normative RNFL (retinal nerve fiber layer), and macular thickness data, guided progressional analysis software, and macular change analysis software. Cirrus 4.0 software is awaiting FDA approval. New features for the Stratus OCT platform were also showcased at ASCRS, including anterior segment imaging [which is awaiting FDA 510(k) approval], enhanced repeat function, and multi-slice reports.

A company executive said that doctors other than retinal specialists are showing great interest in OCT, "Comprehensive ophthalmologists are expanding the use of OCT in practice. They are able to diagnose more disease before referring to another doctor. They can do more tests in their own office instead of immediately referring patients to other doctors. The market in OCT is changing as a result of this."

Dr. Carl Glittenberg of the Rudolf Foundation Clinic in Vienna, Austria, delivered a cinematic presentation, "Advantage of High Density Data in Ray Traced Stereoscopic 3-D OCT Visualization," and doctors viewed new 3-D images through special "Cinemizers" using an iPod.

Zeiss also showcased its Visante Omni, the first system combining OCT and Placido disk technologies, for refractive surgeons.

ZIEMER

Frank Ziemer, president/CEO of Ziemer Group AG, said that his company is doing well in the poor economy because it is active in almost 50 countries, "Of course, America is a very important market, but we can do our business without it. We are concentrating on Asia, South America, and Central America. The important thing is that when you are always improving the technology, as we are, you have a better chance to do better business in difficult times."

Ziemer said that the company's Femto LDV system is doing well. As for other lasers, he said, "AMO's new machine is not a new machine. It's the old machine with a different motor. It's just another motor – nothing more than that." He predicted that femtolaser technology "will have quite a long future."

Ziemer said that his company is seeing about 10%-15% growth this year, "Business has grown quite a bit this past year. Now, for the femtosecond, we have created a platform that step-by-step we can use for other applications." He teased that the company has quite a few things in the pipeline but wouldn't give any details.

♦