ASCRS launches new Annual Clinical Survey

Survey overview

The American Society of Cataract & Refractive Surgery (ASCRS) launched a new Annual Clinical Survey this year to assess potential professional practice gaps and educational needs. The 2013 survey was performed both at the ASCRS•ASOA Symposium & Congress in San Francisco and via electronic follow-up surveys to the ASCRS membership in the following weeks. 1,041 physicians responded to this survey, which included 89 questions that created 168 unique measurable data elements. Survey questions were developed and reviewed with several members of the ASCRS Clinical Committees, and validated by a social science statistician. Results were entered electronically either via an iPad at the annual ASCRS meeting or via a website, and data was tabulated utilizing a survey statistical software package called QuestionPro. 50.2% of the respondents were from the United States, while 49.8% were from outside the United States.

This survey was developed to measure key clinical opinions and practice patterns on the most compelling and controversial issues facing the ASCRS membership. This was a broad-based survey that focused on multiple topics in 10 different specialty areas including cataract surgery with intraocular lenses, presbyopia-correcting and toric IOLs, laser refractive surgery, laser vision correction, as well as other areas such as postoperative inflammation and its treatment, ocular surface, glaucoma, and retina.

The results will help drive the future decisions made by ASCRS’ Programming and Clinical Committees and support ASCRS’ independent educational grant projects.

Please watch for articles in upcoming issues of EyeWorld and JCRS that will feature important detailed analysis of this data and commentary on key trends and gaps from the clinical leadership of ASCRS.

We encourage you to participate in the next survey during the 2014 ASCRS•ASOA Symposium & Congress in Boston, as we examine how patterns change over time and gather information on newly evolving topics. In addition to ASCRS’ Annual Clinical Survey, you may receive one or two short 10-question surveys during the year focusing on specific topics. If you have any feedback or questions about the 2013 survey, or topics you would like to see addressed in future surveys, please send us an email at survey@eyeworld.org.
Presbyopia-correcting IOLs

Average annual procedure volumes show that ASCRS members are performing almost three-quarters of the cataract surgery performed each year in the U.S. Nearly 25% of respondents performed more than 600 procedures annually. While the average incision size was 2.5 mm, 31% use an incision of 2.2 mm or smaller. While the average number of vitrectomies following cataract surgery was 6.5, 52% of respondents had two or less a year.

More than 50% of surgeons are implanting 5% or less of their cataract patients with a presbyopia-correcting IOL. International surgeons had a slightly higher average percentage of conversion to these lenses. Interestingly, the percentage of cataract patients getting a monovision procedure is almost twice that of those getting a presbyopia-correcting IOL.

While most doctors believe that vision at all distances is equally important to patient satisfaction with presbyopia-correcting IOLs, almost one-quarter thought that either distance vision or near vision was the predominant driving factor.

When asked how much residual sphere and cylinder was considered acceptable before it started to affect visual quality, respondents answered 0.61 D of sphere and 0.71 D of cylinder on average. 18% believe that cylinder levels OVER 0.75 D still did not have a significant impact, while 13% believe the same for sphere. When asked how they resolve this residual error, 39% do something other than laser vision correction.

Cataract Surgery

- Average annual procedures
  - Overall: 470
  - 3.5% don’t perform cataract surgery
  - US only: 475 (or 2.5M total amongst US members)
  - 4.2% don’t perform cataract surgery
- Average cataract incision size
  - Overall: 2.50mm
- Average vitrectomies per year
  - Overall: 6.5

Presbyopia Correcting IOL

- Average % of cataract procedures that involve presbyopia-correcting IOLs is 7.9%
- Average % targeted for monovision
  - Overall 18.9%

Presbyopia Correcting IOL

- What visual distance is the more important driver of patient satisfaction for presby-IOL pts?

Presbyopia Correcting IOL

- Average acceptable postop cylinder error, in DIOPTERS
  - Overall: 0.71
- Average acceptable postop spherical error, in DIOPTERS
  - Overall: 0.61

<table>
<thead>
<tr>
<th>Most likely method to correct significant amount of residual cylinder</th>
<th>65.8%</th>
<th>24.3%</th>
<th>12.8%</th>
<th>2.9%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laser vision correction</td>
<td>LH / AK</td>
<td>Glasses or contact lenses</td>
<td>Other</td>
<td></td>
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Toric IOLs

Conversion to toric IOLs was higher with international surgeons versus U.S. surgeons, and more than twice the conversion rates for presbyopia-correcting IOLs. When asked what amount of rotational error from the intended axis was acceptable before it affected visual quality and acuity, the average was 7.2 degrees, and one-third of respondents set this threshold at 10 degrees or higher.

When targeting toric IOL calculations, about half of respondents target the lowest level of error regardless of axis, while the other half choose the lowest error but keep the same preoperative axis, never wanting to flip the axis on these patients.

When calculating the power of toric IOLs, respondents use the IOLMaster the majority of the time with topography as the second most common option. Manual Ks were an interesting third choice.

When deciding on the axis of toric IOLs, topography becomes the primary diagnostic measure, with IOLMaster as a second option, and manual Ks continue to be a third option.
Laser-assisted cataract surgery

When asked to list all the barriers they have to adopting laser-assisted cataract surgery in their practices, the average respondent listed 1.5 barriers. Financial barriers were the most common followed by a lack of data showing benefits over conventional cataract surgery. The financial barrier was much more significant for U.S. versus non-U.S. physicians.

Today, 58% are not confident there is a current adequate reimbursement solution to support laser-assisted cataract surgery (LACS), however this number lowers to 44% when asked their projections 5 years from now.

When asked to identify all the areas where they believe there may be a significant clinical benefit in LACS versus conventional cataract surgery, the average respondent listed 2.0 benefits. Arcuate incisions and capsulorhexis were listed as the most common areas of improvements. This was a dramatic difference in the opinions of accurate incisions where U.S. surgeons saw almost twice as much benefit to these versus their non-U.S. colleagues. 16% saw no areas where there would be a clinical benefit with this technology.

Interestingly, 91% of respondents believe that they will be performing LACS on some of their patients in 10 years, however only 36% believe that they will be performing LACS on the majority of their patients.

Ten years from now, what do believe will be your mix of laser vs. current hand-performed mechanical methods:

- All laser refractive cataract surgery: 7.1%
- Majority laser refractive cataract surgery: 28.7%
- Even mix: 25.1%
- Majority current hand-performed surgery: 29.9%
- All current hand-performed surgery: 9.2%

• 91% believe they will be doing some amount of laser cataract surgery in 10 years.
Inflammation and generic pharmaceuticals

Interestingly, there were significant differences between U.S. and non-U.S. doctors on their use of anti-inflammatory drugs for preloading and the concurrent use of NSAIDs and steroids together. Also 17% of surgeons are still considering 1+ cell and flare levels as normal in their practice. Less than half of respondents strongly agree that low-to-moderate inflammation has visual quality and recovery impact.

The vast majority of respondents conclude that using both NSAIDs and corticosteroids together to block the inflammatory cascade was important after cataract surgery. Slightly more U.S. respondents felt this way compared to their international colleagues.

While about half of respondents are prescribing brand name only pharmaceuticals, they think that about half of the time these are being substituted anyway by the pharmacy.

About two-thirds of respondents believe that there is a significant difference between brand name and generic drugs on patient outcomes and safety.
Laser vision correction

While the average enhancement rate was 7.6%, this rate was almost twice as much with non-U.S. surgeons (9.6%) versus U.S. surgeons (5.5%). 41% of respondents would treat 0.5 D or less of error with laser vision correction, while the average lowest level of treatable error was 0.73 D.

When asked if the Randleman criteria, related to assessing patients for possible risks for ectasia postoperatively, guided their LVC patient selection process, 26% said yes. These rates were significantly higher for younger doctors versus older doctors. Interestingly, respondents said that they believe that about one-third of their patients have increased dry eye after LASIK.

The vast majority of LVC procedures are driven to ASCRS LVC surgeons via patient-to-patient referrals (almost two-thirds). New generation marketing is shown to be more effective than conventional marketing, and interestingly, optometric referrals are shown to drive about 12% of ASCRS member procedures.

Over the next 18 months, ASCRS members believe that their procedures will grow by 15%, and younger doctors are predicting an even greater rise compared to their older colleagues.
Ocular Surface / Cornea

• How many patients do you see per month who are on a prescription medication for dry eye therapy or have had punctal occlusion?
  • Overall: 47
  • US: 44
  • Non-US: 50

Ocular surface / Cornea

On average, respondents saw 47 patients per month who have dry eye beyond just a need for artificial tears. International respondents have slightly higher volumes of these patients.

Ocular Surface / Cornea

Do you follow the Delphi/SHRS guidelines for treating aqueous deficient dry eye and MGID?

<table>
<thead>
<tr>
<th>Option</th>
<th>%</th>
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<tbody>
<tr>
<td>I don’t know what the guidelines say</td>
<td>35.7</td>
</tr>
<tr>
<td>I am probably following them, but I’m not sure</td>
<td>26.0</td>
</tr>
<tr>
<td>I regularly follow the guidelines and adhere closely to them</td>
<td>12.5</td>
</tr>
<tr>
<td>I know what they are but use my own treatment protocols</td>
<td>27.2</td>
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</table>

About 40% of respondents are using the DEWS guidelines in some fashion to drive their dry eye practices, however 34% are not even aware of the guidelines. Interestingly, almost a quarter of all cataract and LVC patients presenting for surgery are requiring some dry eye treatment preoperatively beyond artificial tears.

Ocular Surface / Cornea

• % Cataract present with sufficient ocular surface dysfunction to require some treatment beyond artificial tears?
  – Overall: 21.1%
• % LVC present with sufficient ocular surface dysfunction to require some treatment beyond artificial tears?
  – Overall: 24.2%

Compliance with dry eye therapies continues to be an issue as 68% think their patients are taking them on an as needed basis, instead of when prescribed. Also, new generations of tear film diagnostics are currently being incorporated into the point of care in 18% of practices.

Ocular Surface / Cornea

• 68% do not believe that patients are taking dry eye therapies on a regular basis and are instead using them on an as needed basis.
• Only 18% believe that advanced tear film diagnostics should be incorporated in the initial point of care

One-third of respondents are performing some type of keratoplasty procedures in their practices, and the average graft rejection rate is about 5% currently.

Ocular Surface / Cornea

How many penetrating, endothelial or lamellar keratoplasty procedures are you performing per year

<table>
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<tr>
<th>Range</th>
<th>%</th>
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<tr>
<td>0</td>
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<tr>
<td>1-5</td>
<td>10</td>
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<tr>
<td>6-10</td>
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<td>11-15</td>
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<td>16-20</td>
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<tr>
<td>31-35</td>
<td>5</td>
</tr>
<tr>
<td>36-40</td>
<td>0</td>
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</tbody>
</table>

• % graft rejection (by those performing them)
  – Overall: 5.1%
Glaucmaa/Retina

The survey data shows about half of all prostaglandin analog prescriptions per year are performed by ASCRS members, as these represent about 62% of all their patients. Yet less than one-third of patients are believed to be regularly compliant with their prostaglandin therapies.

While many factors are involved, generally 23-26 mm Hg are the levels upon which respondents believe a combined glaucoma/cataract procedure is warranted, which is about 10% of all procedures.

About one-quarter of cataract patients are currently being co-managed for AMD or DME, however about one-third of respondents do not agree that they have an in-depth understanding of anti-VEGF therapies and their impact.

Interestingly, about 40% of respondents claim to be performing some volume of intravitreal injections themselves, instead of referring it to a retinal specialist, however only half of these doctors are doing this the majority of the time.