ASCRS completes fourth annual Clinical Survey

More than 1,500 members responded with clinical opinions and practice patterns to help drive the future of ASCRS education

A note from the ASCRS Education Committee Chair

As Education Committee Chair for ASCRS, I am very excited about this supplement on the fourth annual ASCRS Clinical Survey, which was performed both at the ASCRS•ASOA Symposium & Congress in New Orleans and via electronic follow-up surveys to the ASCRS membership. Incredibly, more than 1,500 physicians responded to this survey, which included 210 questions that created 551 unique measurable data elements. Survey questions were developed and reviewed with the ASCRS Clinical Committees and validated by a social science statistician.

Data analyzed reveals trends in utilization of technology over the past 4 years and highlights areas where members think education or information is not sufficient to make them comfortable adopting new technology and treatments. We highlight areas such as presbyopia correction and astigmatism management, ocular surface disease management especially in the face of refractive surgeries, and laser-assisted cataract surgery adoption trends. Our members are also interested in learning about new trends or treatments in corneal refractive surgery and retina and glaucoma advancements.

The most exciting aspect is that this survey can help guide education for ASCRS not only at the annual meeting but through multiple media outlets such as EyeWorld CME symposia, EyeWorld articles or reviews, webinars, and on the ASCRS Center for Learning. We can tailor education to specifically meet the needs of our members as found through this survey. I encourage you to review these interesting findings and also to continue taking advantage of and participating in all the venues available to you to keep up to date with the latest trends in techniques and technology by partnering with ASCRS.

Rosa Braga-Mele, MD, MEd, FRCSC
Education Committee Chair, ASCRS
Professor of ophthalmology, University of Toronto

Survey overview

- Background
  - 551 data points from 210 questions on key clinical opinions and practice patterns
  - More than 1,500 unique respondents

Respondent demographics: Overview

- 61% U.S./39% Outside U.S.
- 12 specialty sections
- Optometrist employed as part of practice:
  - 70% (U.S. members)

Respondent demographics: Gender

<table>
<thead>
<tr>
<th>Practicing</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resident/Fellow</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>0–5 years</td>
<td>67%</td>
<td>33%</td>
</tr>
<tr>
<td>6–10 years</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>11–20 years</td>
<td>82%</td>
<td>18%</td>
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<tr>
<td>21–30 years</td>
<td>86%</td>
<td>14%</td>
</tr>
<tr>
<td>More than 30 years</td>
<td>89%</td>
<td>11%</td>
</tr>
</tbody>
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Overall Procedures/Presbyopia Correction

Cataract volumes, toric IOL and presbyopia-correcting IOL adoption have all increased from previous years’ surveys. Overall, respondents reported performing approximately 300 LVC procedures annually.

Thirty-four percent think 0.75 D or more of spherical error is acceptable before visual quality is impacted. Fifty-eight percent think that 0.75 D or more of residual cylinder does not have a significant impact on visual quality and patient satisfaction.

ASCRS respondents indicate that on average, presbyopia-correcting IOL patients were less satisfied with intermediate vision than near and distance vision.

Cataract and Corneal Refractive Surgery: Overall Procedures

Average cataract annual volume: 512
- Toric IOLs: 10%
- Presbyopia-correcting IOLs: 9%

Average LVC annual volume: 301

Presbyopia Correction

In patients implanted with a presbyopia-correcting IOL, what is the lowest amount of postoperative residual refractive error that you consider to be visually significant (i.e., likely to have an impact on visual quality and patient satisfaction) in diopters?

Average acceptable level of refractive error before this significantly impacts visual quality:
- Sphere: 0.7 D
- Cylinder: 0.8 D

Presbyopia Correction

Overall, how satisfied are your presbyopia-correcting IOL patients with their outcomes at the following distances at 1 year postop?

<table>
<thead>
<tr>
<th>Distance</th>
<th>Somewhat Unsatisfied or Extremely Unsatisfied</th>
<th>Neither Satisfied or Unsatisfied</th>
<th>Somewhat Satisfied or Extremely Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Near</td>
<td>5%</td>
<td>91%</td>
<td>91%</td>
</tr>
<tr>
<td>Intermediate</td>
<td>9%</td>
<td>78%</td>
<td>9%</td>
</tr>
<tr>
<td>Distance</td>
<td>3%</td>
<td>94%</td>
<td>94%</td>
</tr>
</tbody>
</table>

Somewhat Unsatisfied or Extremely Unsatisfied
Neither Satisfied or Unsatisfied
Somewhat Satisfied or Extremely Satisfied
Astigmatism Management/Toric IOLs

Forty percent of respondents to the 2016 ASCRS Clinical Survey reported that 10 degrees or more of postoperative rotational error are acceptable with a toric IOL before visual quality and degradation of visual acuity are significantly affected.

Overall, 46% of physicians use ink marking with the aid of manual axial instruments (i.e., a plumb bob) to align the preoperative axis with the intraoperative axis, but nearly 30% use anatomical landmarks or ink mark without the aid of additional instruments.

Topography and automated biometry (IOLMaster/LENSTAR) are the most common preoperative measurements that drive axis decisions when implanting a toric IOL. There seems to be little consistency among the other measurement options.
The Refractive Ocular Surface

ASCRS respondents see an average of 30 patients per month with ocular surface disease requiring treatment beyond artificial tears. When asked about the Delphi/DEWS guidelines for treating aqueous deficient dry eye and MGD, more than a third (34%) of respondents were unaware of the Delphi/DEWS guidelines, and 38% think they follow the guidelines but are uncertain.

Nearly half of ASCRS respondents’ patients are thought to have meibomian gland dysfunction (MGD) and roughly 35% have aqueous deficient dry eye (ADDE). Cyclosporine is used as a primary therapy in patients with moderate dry eye; U.S. physicians are significantly more likely than non-U.S. physicians to prescribe this therapy.

Respondents report that an average of 20% of their cataract surgery patients present for their preoperative consult with sufficient OSD that requires some treatment beyond artificial tears. Additionally, an average of 23% of ASCRS respondents’ cataract surgery patients present as asymptomatic of any OSD prior to surgery but develop symptoms postop.
Laser-Assisted Cataract Surgery
More than 45% of respondents think there is not a significant clinical benefit in LACS vs. conventional cataract surgery for effective lens position, lens fragmentation, capsulorhexis creation, and arcuate incisions.

More than half of respondents are not very or not confident at all that there is an adequate reimbursement solution to support LACS.

Overall, an average of 8% of respondents’ cataract patients currently receive femtosecond laser cataract surgery. ASCRS respondents report economic options (59%) and data proving clinical benefits (43%) as barriers to not performing laser-assisted cataract surgery.
Young Eye Surgeons
Residents, fellows, and young eye surgeons within 5 years of practice were asked about their exposure to premium technology during residency. Almost half had only implanted 5 or less toric IOLs, while more than 60% did not implant any presbyopia-correcting IOLs. Additionally, almost 75% did not perform any laser-assisted cataract surgery cases while in residency. Many also reported their residency experience with these technologies as inadequate.

More than 2/3 of all young eye surgeon respondents had surgical refractive training in surface ablation (PRK, LASEK, epi-LASIK) and LASIK as part of their curriculum. However, only up to 37% of young eye surgeons received training in refractive lens exchange, femtosecond lasers, and phakic IOLs.
Post-Cataract Surgery Inflammation/
Corneal Refractive Surgery
ASCRS Clinical Survey respondents report an average of 5% of their cataract patients have 1+ cell/flare or greater 3–7 days after cataract surgery. 28% report that 6% or more of their patients experience 1+ cell/flare or greater 3–7 days after surgery.

Nearly a fifth of surgeons think it is somewhat not or not important to combine both corticosteroids and NSAIDs to treat postoperative inflammation and control pain following a routine cataract surgery case.

More than 30% of ASCRS respondents plan to use intracameral antibiotic injections within the next 12 months. 40% of physicians are currently using intracameral antibiotic injections. Non-U.S. respondents are nearly 75% more likely to use these injections than U.S. respondents.

Respondents think that LASIK significantly increases dry eye in an average of 30% of their patients 3 months after surgery. This drops to 25% at 6 months postop.
Corneal Refractive Surgery/Retina/Advanced Glaucoma Treatments

Nearly 70% of respondents use UCVA of 20/20 or better to assess their LVC outcomes. 11% do not have a standardized way of assessing outcomes. However, this has dropped 9% since the 2015 ASCRS Clinical Survey.

More than 35% of respondents to the ASCRS Clinical Survey perform intravitreal injections, and 80% have confidence in the timing of retinal disease therapies with respect to cataract surgery.

Overall, respondents report seeing roughly 50 patients per month with glaucoma, and 13% of all cataract patients are estimated to have glaucoma. Additionally, 70% of respondents do not currently use MIGS. However, an average of 20% of patients with glaucoma are estimated to be candidates for a MIGS device.

Overall, respondents to the 2016 ASCRS Clinical Survey think that 32% of their patients who are prescribed one medication are not compliant. This increases to 37% for two medications and 43% for more than two medications.