



ASCRS Clinical Survey **2017**

More than 1,100 members responded with clinical opinions and practice patterns to help drive the future of ASCRS education

As the ASCRS Education Committee chair, I'm pleased to announce the results of the fifth annual ASCRS Clinical Survey, performed in April–May 2017. The results of the survey include the perspectives of more than 1,100 physicians who responded to 118 questions, which were developed and reviewed with the help of physician volunteers of the ASCRS Clinical Committees and validated by a social science statistician. The survey generated more than 300 measurable data elements.

ASCRS members were asked key questions relating to current issues they face on a regular basis. The results were reviewed and interpreted by the ASCRS Clinical Committees and Education Committee.

Important trends spotted this year are in areas such as presbyopia correction, astigmatism management, and microinvasive glaucoma surgery (MIGS). The survey also evaluated members' opinions and practices in laser-assisted cataract surgery, inflammation and infection control, corneal refractive surgery, and more.

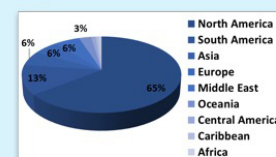
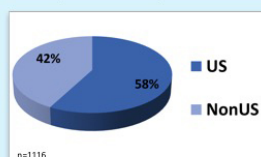
This survey helps shape all forms of education for ASCRS, including that featured at the annual meeting, in web-based seminars, online education, and print media. Participation in these surveys ensures that education is formatted to the needs of our membership coupled with direction from experts in the field. The results of this survey help ASCRS to enhance membership learning and provide members the opportunity to see how they compare with their peers.

Rosa Braga-Mele, MD, MEd, FRCSC,
chair, ASCRS Education Committee

Where is your practice located?

- 58% of respondents are from the U.S., 61% last year
- 13% of respondents are from South America, 14% last year
- Asia: 6%
- Europe: 6%
- Middle East: 6%
- 69 countries (excluding U.S.)
- 1 more than last year
- Australia, Peru, and Italy new to the top 10 this year (replaced Chile, Turkey, and Israel)
- Top 5 same countries, different order for third through fifth

Top 10	%
Brazil	12%
Canada	8%
Mexico	8%
India	6%
Argentina	6%
Australia	5%
Colombia	4%
Peru	4%
Egypt	3%
Italy	3%
Other	41%

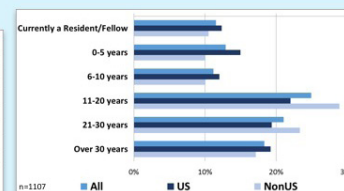
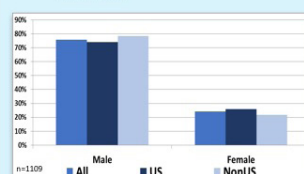


What is your gender?

- Overall, just over 3 to 1 ratio of male to female, 76% male and 24% female
- Non-U.S. slightly higher male, 78% compared to U.S., 74%

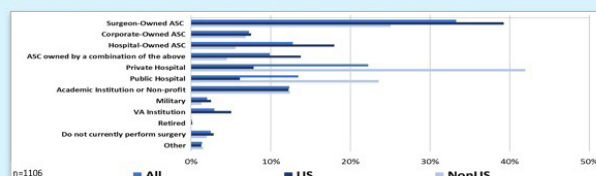
How many years have you been in practice?

- Overall, nearly two-thirds of respondents have been in practice 11+ years, 64%
- U.S.: 61%
- Non-U.S.: 69%



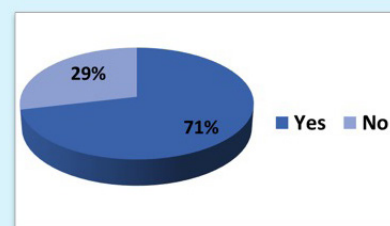
Where is your primary surgery location? (Select all that apply)

- Overall, 20% of respondents selected 2 primary surgery locations
- Nearly 80% of U.S. respondents selected ASC, 79%, non-U.S. 42%
- Surgeon-owned: 39%
- Corporate-owned: 8%
- Hospital-owned: 18%
- Combination of the above: 14%
- Nearly two-thirds of non-U.S. respondents selected Private or Public Hospital, 66%, U.S. 14%
- Private: 42%
- Public: 24%
- Overall, 12% of respondents selected Academic Institution or Non-profit, same for U.S. and non-U.S.



Do you have an optometrist employed as part of your practice? U.S. ONLY

- Yes: 71%
- No: 29%



Key findings

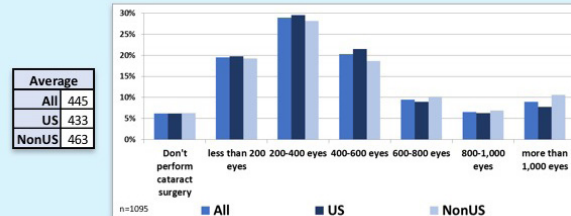
Average annual cataract surgery volume among members is nearly 450. 25% of ophthalmologists said they perform 600 or more cataract surgeries annually, with more non-U.S. respondents selecting this volume than U.S. (28% compared to 23%, respectively).

Highlighting the value of education on phaco essentials and fundamentals, 79% of all respondents said they are either confident or very confident in customizing their phaco settings to optimize standard cataract surgery; non-U.S. respondents are more confident than their U.S. counterparts, 87% vs. 75%, respectively. 78% of respondents said they are confident or very confident with phaco setting customization for more complicated cases as well.

In terms of complication rates, 14% of all respondents reported six or more posterior capsule ruptures within the past 12 months. Non-U.S. doctors reported nearly twice the rate of their U.S. counterparts (20% compared to 10%, respectively). More than three-quarters of the doctors (76%) are confident or very confident in performing an anterior vitrectomy.

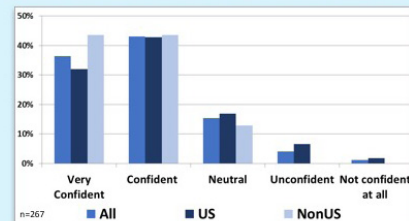
What is your average ANNUAL volume of cataract surgery?

- Overall, on average respondents perform nearly 450 cataract surgeries annually, 445
- Non-U.S. respondents are 7% higher than U.S. respondents, 463 to 433
- A quarter of respondents perform 600 or more annually, 25%
- 28% non-U.S. compared to 23% U.S.



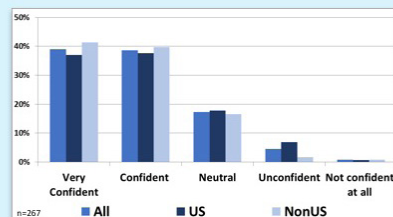
What is your current level of confidence to customize your phaco machine settings to optimally manage standard cataract surgeries?

- Overall, nearly 80% of respondents are Very Confident or Confident, 79%
- Non-U.S. respondents are 12 points higher than U.S., 87% compared to 75%



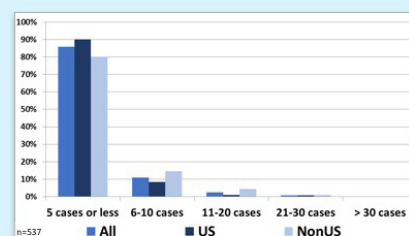
What is your current level of confidence to customize your phaco settings in cataract patients with more common complicated cases (e.g., small pupils, soft lenses, dense nuclei, and weak zonules)?

- Overall, nearly 80% of respondents are Very Confident or Confident, 78%
- Non-U.S. respondents are 6 points higher than U.S., 81% compared to 75%



Within the past 12 months, in how many cases have you experienced posterior capsule rupture?

- Overall, 14% of respondents had 6 or more cases of posterior capsule rupture in the past 12 months
- Non-U.S. respondents have nearly twice the rate of U.S. respondents with 6 or more cases, 20% to 10%



Key findings

More than 80% of the survey's respondents said they use toric IOLs in their current cataract surgery practice. Of the less than 20% who said they do not, 49% said cost to the patient is a deterrent. If cost was not an issue, nearly 50% said patients with clinically significant astigmatism would likely receive toric IOLs.

More than 60% of those using toric IOLs think 5 degrees or less of postoperative rotational error is acceptable, but 29% said 10 or more degrees is acceptable before visual quality and degradation is significantly affected.

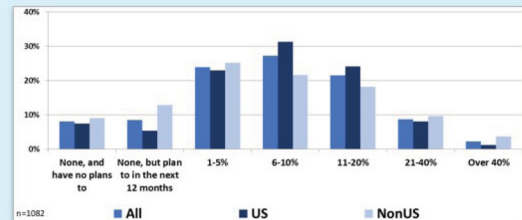
As for toric power calculations, 72% of respondents take posterior corneal astigmatism into consideration (U.S. respondents 75% and non-U.S. respondents 69%).

I think the good news is that the number of surgeons using toric IOLs is starting to trend upward. It's no surprise that there is going to be a small subset of surgeons who do a higher volume of refractive cataract surgery, as evidenced by the 11% of surgeons who place toric IOLs in about 20% of their patients. As we know, there is a third of patients who we are seeing for cataract surgery with at least 1 D of corneal astigmatism, so there is a gap in terms of who is getting their astigmatism fixed and who is not undergoing this correction during cataract surgery.

Elizabeth Yeu, MD, advisor,
Young Eye Surgeons Clinical Committee

What percentage of your CURRENT cataract procedures involve toric IOLs?

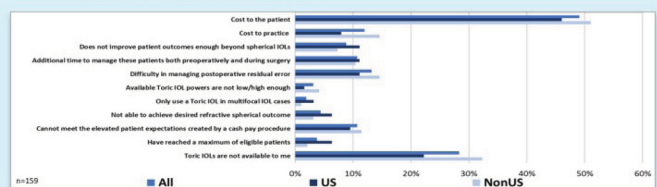
- Respondents' average toric IOL mix is 10% of their total cataract procedures
- 11% of respondents have a toric IOL mix greater than 20%



Average Pct
All 10%
US 10%
NonUS 10%

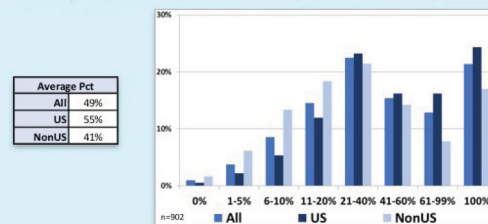
What are the reasons you do NOT implant toric IOLs? (Select all that apply)

- Cost to the patient was the highest selected reason, 49% of respondents
- Nearly 30% of respondents do not have toric IOLs available to them (non-U.S. 32%)
- Overall, 9 other reasons were selected by 2% to 13% of respondents
- 15% of non-U.S. selected cost to practice and difficulty in managing postoperative residual error
- 6% of U.S. respondents have reached a maximum of eligible patients
- Overall, respondents selected an average of 1.5 reasons



If there was no additional cost, what percentage of your cataract patients with clinically significant astigmatism would receive a toric IOL?

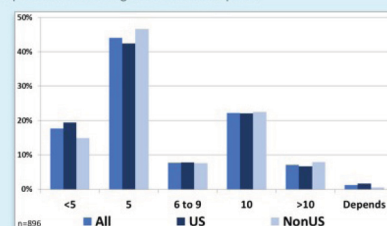
- Overall, on average respondents think nearly 50% of their cataract patients with clinically significant astigmatism would receive a toric IOL if there was no additional cost, 49%
- U.S.: 55%
- Non-U.S.: 41%
- 21% of respondents think 100% would receive a toric IOL (U.S.: 24% and non-U.S.: 17%)



Average Pct
All 49%
US 55%
NonUS 41%

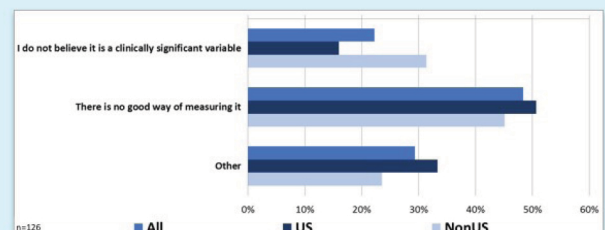
After implanting a toric IOL, how many degrees of postoperative rotational error is acceptable before visual quality and degradation of visual acuity are significantly affected?

- Overall, 29% of respondents think 10 degrees or more is acceptable
- Responses for U.S. and non-U.S. respondents were very similar, 29% and 30%, respectively
- 7% think more than 10 degrees is acceptable
- More than 60% of respondents think 5 degrees or less is acceptable



Why don't you use posterior corneal astigmatism in your toric calculations?

- Overall, 22% of respondents do not think it is a clinically significant variable
- Non-U.S. response is 50% higher than U.S. response, 24% to 16%
- Nearly half do not think there is a good way of measuring it, 48%



Key findings

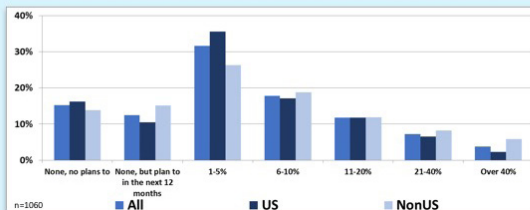
Presbyopia-correcting IOLs account for 8% of cataract procedures. 28% of doctors do not use presbyopia-correcting IOLs at all, but 45% of this group said they plan on incorporating these options within the next year. The main reason for not using these advanced IOLs was cost to the patient (55%), but concern over quality of nighttime vision (36%) and a lack of confidence in the available technology (33%) were also cited as barriers, among other reasons.

Of those using presbyopia-correcting IOLs, 66% of ophthalmologists obtain macular OCT preoperatively; U.S. physicians are more likely to do so compared to non-U.S. (77% vs. 55%, respectively). 13% of U.S. doctors do not obtain OCT preoperatively for these patients. Most (69%) reported 0.5 D of spherical deviation or less from intended target as likely to have an impact on visual quality or patient satisfaction, while 8% think 1 D or more of spherical deviation is a threshold for visual significance.

If an astigmatic patient wanted a multifocal IOL, which would require 1.25 D of cylinder, 49% of surgeons said they would implant a toric multifocal IOL. U.S. doctors are more than twice as likely to select manual LRIs or femtosecond laser-created AKs (33% compared to 25% of non-U.S. surgeons) and are three times as likely to select a toric extended depth of focus IOL (19% compared to 6%). While most who use presbyopia-correcting IOLs do not mix and match (60%), 25% said they might do so with similar IOLs of different powers.

What percentage of your CURRENT cataract procedures involve presbyopia-correcting IOLs?

- Respondents' average PCIOL mix is 8% of their total cataract procedures
- Non-U.S. respondents are 2% points higher than U.S., 9% to 7%
- Overall, 28% of respondents do not use PCIOLs
- 45% of those not currently implanting PCIOLs plan to in the next 12 months



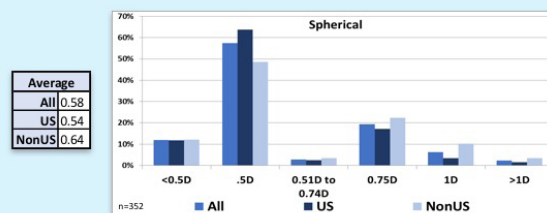
What are your primary reasons for not performing any/additional presbyopia-correcting IOL procedures? (Select all that apply)

- Overall, more than half of respondents do not perform because of cost to the patient, 55%
- Concern over nighttime quality of vision: 36%
- I do not feel confident with currently available technology: 33%
- Overall, on average respondents selected between two and three reasons for not performing any/additional presbyopia-correcting IOL procedures, 2.4
- U.S. respondents selected slightly more reasons than non-U.S. respondents, 2.5 to 2.2



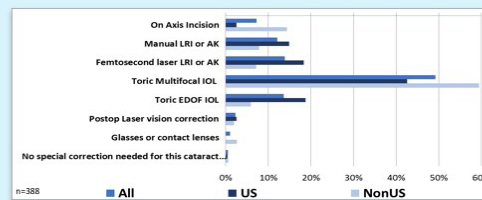
In patients implanted with a multifocal/EDOF presbyopia-correcting IOL, how much spherical deviation from your intended target do you consider to be visually significant (i.e., likely to have an impact on visual quality and patient satisfaction) in diopters?

- Overall, 8% of respondents think 1 D or more spherical deviation is visually significant
- U.S.: 4%
- Non-U.S.: 13%
- Overall, nearly 70% of respondents think 0.5 D or less, 69%



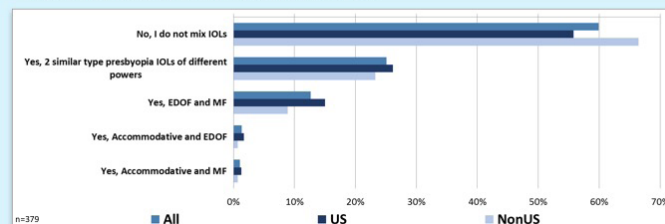
What is your most common procedure to manage astigmatism in a patient highly motivated to receive a multifocal IOL with the following level of cylinder? 1.25 D

- Overall, nearly half of respondents selected Toric Multifocal IOL, 49%
- Non-U.S. respondents were much more likely to select Toric Multifocal compared to U.S., 59% to 43%
- U.S. respondents were more than twice as likely to select LRI or AK (Manual or Femtosecond laser) than non-U.S. respondents, 33% to 25%
- U.S. respondents were more than three times as likely to select Toric EDOF IOL, 19% to 6%



Do you mix and match different types of presbyopia-correcting IOLs in the same patient?

- Overall, a quarter of respondents mix 2 similar type presbyopia IOLs of different powers, 25%
- Overall, the majority of respondents do not mix IOLs, 60%



Key findings

As for other forms of surgical presbyopia correction, ophthalmologists reported performing routine monovision on 14% and mini-monovision in 13% of their total cataract volume. Intracorneal inlays are not offered by 91% of respondents. Those who don't use this technology said they don't have access to it (40%), have concerns over its efficacy (36%) or safety (33%), and/or worried about the patient cost (14%).

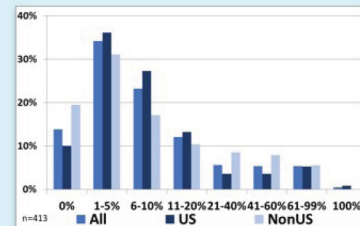
The continued growth in presbyopia-correcting IOLs and the technologies that surround them is a tribute to the research and development the companies have performed to optimize the refractive cataract patient's range of vision at distance, intermediate, and near. Modern-day cataract patients want to hear all of their options, and the high patient satisfaction of modern-day low add multifocals and extended depth of focus implants has revolutionized advanced cataract surgery for patients who desire doing the majority of what they do without spectacles. I see this as an area of ophthalmology that is going to continue to grow and grow at a robust pace.

Vance Thompson, MD, member,
Refractive Clinical Committee

What percentage of ALL cataract cases do you plan for routine monovision instead of performing a presbyopia IOL procedure?

- Overall, on average respondents plan for routine monovision for 14% of all cataract cases
- 22% of non-U.S. respondents plan for routine monovision in more than 20% of their patients
- 13% for U.S. respondents

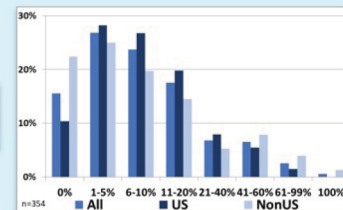
Average Pct	
All	14%
US	13%
NonUS	15%



What percentage of ALL cataract cases do you plan for mini-monovision instead of performing a presbyopia IOL procedure?

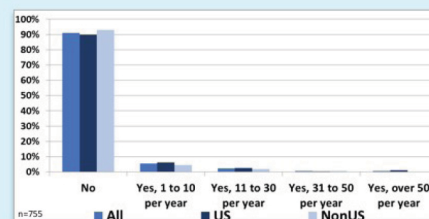
- Overall, on average respondents plan for mini-monovision for 13% of all cataract cases
- On average non-U.S. respondents plan for mini-monovision slightly more than U.S. respondents, 15% to 12%

Average Pct	
All	13%
US	12%
NonUS	15%



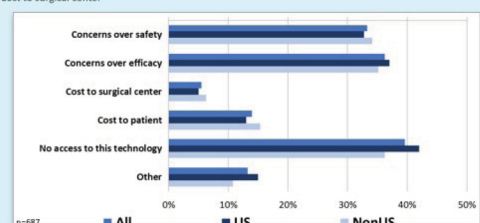
Do you currently implant corneal inlays?

- Overall, more than 90% of respondents do not implant corneal inlays, 91%
- Only 3% of respondents implant 11 or more per year



If you are not implanting corneal inlays, why not? (Select all that apply)

- Overall, respondents are evenly split:
 - No access to this technology: 40%
 - Concerns over efficacy: 36%
 - Concerns over safety: 33%
- Only 14% of respondents selected Cost to patient
- 6% selected Cost to surgical center



Key findings

While 62% of respondents do not perform femtosecond laser-assisted cataract surgery (FLACS), those who do reported an average use of 8% among all of their cataract procedures. Overall, FLACS among U.S. respondents is higher (10% of U.S. cataract procedures compared to 6% of non-U.S.), and 18% of U.S. respondents said 21% or more of their patient volume is FLACS, compared to 8% having this volume outside the U.S.

Those who have not adopted FLACS cited economic viability, lack of data supporting clinical benefits, and patient flow, time, and efficiency issues as barriers.

Where respondents think femtosecond laser use could provide the most clinical benefit is in capsulorhexis creation (74%), making arcuate incisions (68%), and/or lens fragmentation (60%).

The majority of ophthalmologists have not yet adopted FLACS, with economic viability, lack of data supporting clinical benefits, and patient flow being the primary reasons. However, the majority of respondents think that the femtosecond laser offers clinical benefits for capsulorhexis creation, arcuate incisions, and lens fragmentation. FLACS clearly offers benefits over conventional cataract surgery for many ophthalmologists and their patients. These benefits must become more substantial before widespread adoption will occur.

Eric Donnenfeld, MD, advisor,
Refractive Clinical Committee

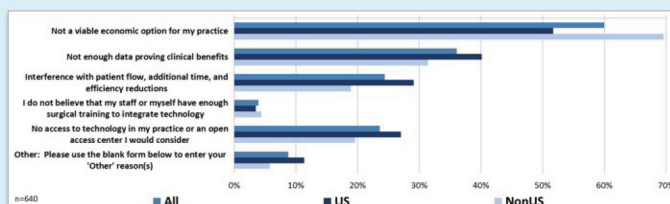
What percentage of your cataract patients CURRENTLY receives femtosecond laser cataract surgery?

- Respondents' average FLACS use is 8% of their total cataract procedures
- U.S. respondents are 4% points higher than non-U.S. respondents, 10% to 6%
- More than 60% of respondents do not do any femtosecond laser cataract surgery, 62%
- Nearly three-fourths of those respondents said they have no plans to use it
- 18% of U.S. respondents use FLACS in 21% or more of their total cataract procedures, non-U.S. 8%



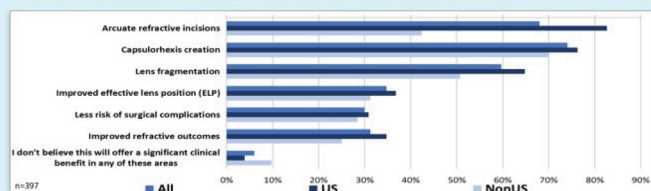
What are your primary reasons for not currently offering femtosecond cataract surgery? (Select all that apply)

- Overall, 60% of respondents selected not a viable economic option for my practice
- U.S.: 52%
- Non-U.S.: 70%
- Overall, more than a third of respondents think there is not enough data proving clinical benefits, 36%
- 24% Interference with patient flow, additional time and efficiency reductions (U.S. 29% and non-U.S. 19%)



In which of the following areas do you think laser cataract surgery may provide a significant clinical benefit versus conventional cataract surgery? (Select all that apply)

- Overall, 60% or more of respondents selected:
- Capsulorhexis creation: 74%
- Arcuate refractive incisions: 68%
- Lens fragmentation: 60%
- Overall, respondents selected an average of three areas
- On average U.S. respondents selected more areas than non-U.S. respondents, 3.3 compared to 2.6



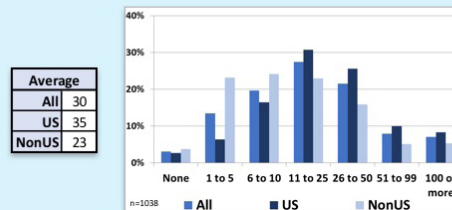
Key findings

Overall, doctors reported seeing 30 dry eye patients per month whose symptoms are not well controlled with artificial tears. This, they later reported, equates to more than 20% of their symptomatic cataract patients requiring treatment beyond artificial tears. On average, 27% of cataract patients have asymptomatic dry eye preoperatively.

According to the survey, physicians think these symptoms can have a significant impact on surgical outcomes. More than 90% think mild to moderate dry eye can have a significant impact on patient satisfaction post-cataract or refractive surgery, and nearly 90% think mild to moderate dry eye impacts keratometry and IOL calculations.

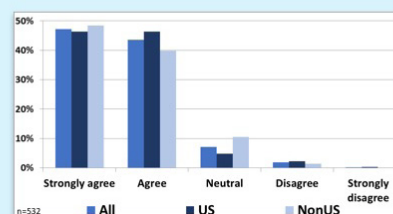
On average, how many dry eye patients do you see per month whose symptoms are not well controlled with artificial tears?

- Overall, on average respondents see 30 dry eye patients whose symptoms are not well controlled with artificial tears
- U.S. respondents see nearly 50% more than non-U.S. patients, 35 to 23
- 18% of U.S. respondents see 51 or more patients per month, 10% non-U.S.



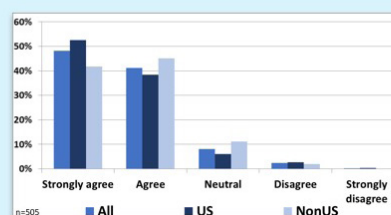
Please rate your belief in the following statement: Mild to moderate dry eye significantly impacts patient satisfaction in postop cataract and refractive patients

- Overall, more than 90% of respondents strongly agree or agree, 91%



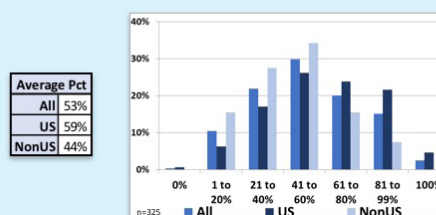
Please rate your belief in the following statement: Mild to moderate dry eye significantly impacts keratometry and IOL calculations

- Overall, nearly 90% of respondents strongly agree or agree, 89%



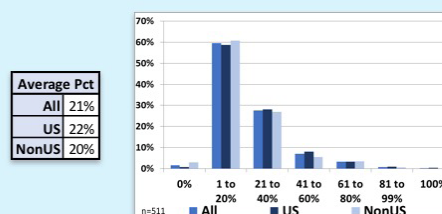
What percentage of your dry eye patients do you think have a mix of MGD and aqueous deficiency?

- Overall, on average respondents think more than half of their dry eye patients have a mix of MGD and aqueous deficiency, 53%
- U.S. respondents, on average, are 15% points higher than non-U.S. respondents, 59% to 44%
- More than a quarter of US respondents think 81% or more of their dry eye patients have a mix, 26%, nearly four times the rate of non-U.S. respondents, 7%



What percentage of your cataract surgery patients present for their preoperative consult with sufficient symptomatic ocular surface dysfunction to require some treatment beyond artificial tears?

- Overall, on average respondents think more than 20% of their cataract surgery patients present for their preoperative consult and require some treatment beyond artificial tears, 21%
- U.S.: 22%
- Non-U.S.: 20%



Key findings

Doctors use a diverse range of treatments for moderate to severe dry eye or meibomian gland disease, including artificial tears, cyclosporine, lifitegrast, oral omega-3, thermal lid expression, punctal occlusion, corticosteroid, topical azithromycin, and oral cyclines.

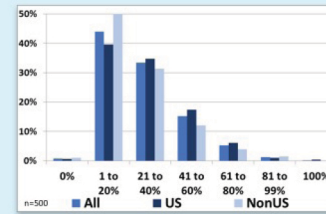
It's encouraging to see that the majority of respondents are recognizing the huge impact that the ocular surface has on the outcomes of cataract surgeries. I think this is attributable to the growing number of refractive cataract surgery options, better lens technologies, plus the better therapeutic and diagnostic options for dry eye disease management. This growing awareness should optimistically translate to more surgeons identifying and treating the ocular surface around the time of cataract surgery.

Elizabeth Yeu, MD, advisor,
Young Eye Surgeons Clinical Committee

What percentage of your cataract surgery patients present as asymptomatic but still have dry eye preoperatively?

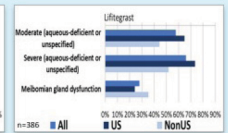
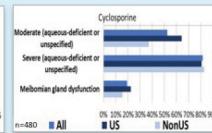
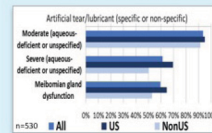
- Overall, on average respondents think more than a quarter of their cataract surgery patients present as asymptomatic but still have dry eye preoperatively, 27%
- U.S.: 29%
- Non-U.S.: 24%

Average Pct
All 27%
US 29%
NonUS 24%



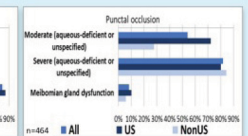
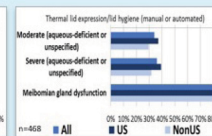
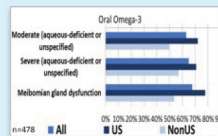
Indicate your primary therapies and treatments for managing the following dry eye severity levels: (Select all that apply)

- Artificial tear/lubricant (specific or non-specific)
 - Moderate: 94%
 - Severe: 81%
 - MGD: 60%
- Cyclosporine
 - Moderate: 53%, U.S. respondents nearly twice the rate of non-U.S., 64% to 37%
 - Severe: 81%
 - MGD: 39%
- Lifitegrast
 - Moderate: 58%, U.S. 21% points higher than non-U.S., 65%
 - Severe: 60%, U.S. 22% points higher than non-U.S., 74%
 - MGD: 28%, non-U.S. 11% points higher than U.S., 35%



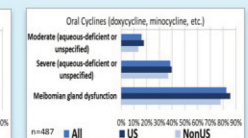
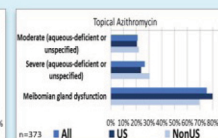
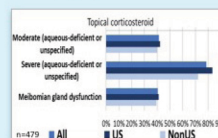
Indicate your primary therapies and treatments for managing the following dry eye severity levels: (Select all that apply)

- Oral omega-3
 - Moderate: 67%, U.S. 22% points higher than non-U.S., 72%
 - Severe: 65%, U.S. 14% points higher than non-U.S., 71%
 - MGD: 68%, U.S. 24% points higher than non-U.S., 78%
- Thermal lid expression/lid hygiene (manual or automated)
 - Moderate: 34%
 - Severe: 36%
 - MGD: 85%
- Punctal occlusion
 - Moderate: 54%, U.S. 44% points higher than non-U.S., 72%
 - Severe: 82%
 - MGD: 8%



Indicate your primary therapies and treatments for managing the following dry eye severity levels: (Select all that apply)

- Topical corticosteroid
 - Moderate: 41%
 - Severe: 79%
 - MGD: 41%
- Topical azithromycin
 - Moderate: 21%
 - Severe: 27%
 - MGD: 75%
- Oral cyclines (doxycycline, minocycline, etc.)
 - Moderate: 16%
 - Severe: 39%
 - MGD: 83%



Key findings

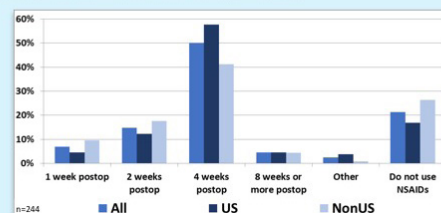
Four weeks is how long most surgeons prescribe NSAIDs (50%) or topical steroids (73%) to post-cataract patients. Less than half of doctors (44%) administer intraoperative anti-inflammatory agents as an injection or in the irrigating bottle, and more than a third said they never use them at the time of surgery.

Topical antibiotics are the most common form of antibiotic prophylaxis among U.S. respondents (65%), while intracameral injection was the top response among non-U.S. physicians (56%).

Among those who use intracameral antibiotics, 75% selected moxifloxacin or cefuroxime over other options, which included vancomycin, gentamicin, levofloxacin, and combinations. Nearly half of respondents (47%) do not plan on administering intracameral antibiotics. The most common reasons for not using intracameral antibiotics are a lack of approved products, the risk associated with compounding antibiotics, and not being convinced of efficacy.

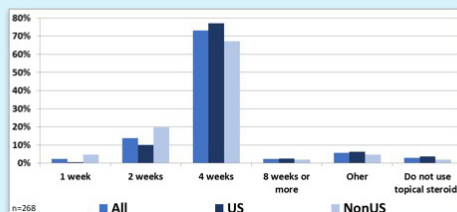
How long do you dose NSAIDs postoperatively for the majority of your standard cataract patients?

- 50% of respondents dose NSAIDs postoperatively for 4 weeks
- U.S.: 58%
- Non-U.S.: 41%
- More than 20% do not use NSAIDs, 21%
- U.S.: 17%
- Non-U.S.: 26%
- 10% of non-U.S. respondents only dose for 1 week, twice the rate of U.S. respondents, 5%



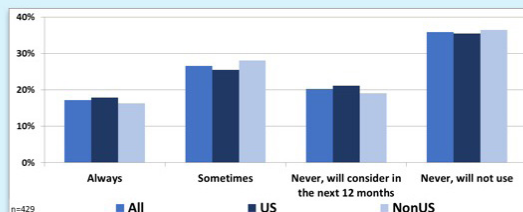
How long do you dose topical steroids postoperatively for the majority of your standard cataract patients?

- More than 70% of respondents dose topical steroids postoperatively for 4 weeks, 73%
- U.S.: 77%
- Non-U.S.: 67%
- 14% dose for 2 weeks
- U.S.: 10%
- Non-U.S.: 20%



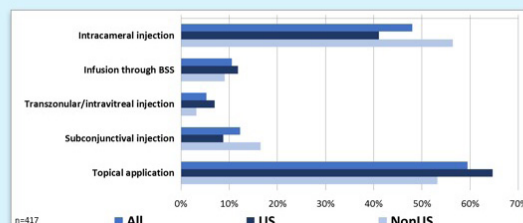
Does your anti-inflammatory and pain control regimen include intraoperative instillation of anti-inflammatory agents as either an injection or added to the irrigating solution during the time of surgery?

- Less than half of respondents include intraoperative instillation of anti-inflammatory agents, 44%
- Always: 17%
- Sometimes: 27%
- More than a third of respondents will never use, 36%



Which protocol characterizes your intraoperative antibiotic use? (Select all that apply)

- Nearly 60% use Topical application, 59%
- U.S. top response, Topical application, 65%
- Non-U.S. top response, Intracameral injection, 56%



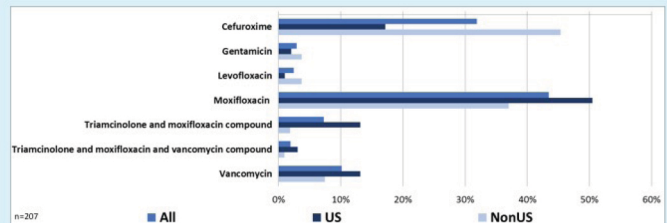
In the 2007 and 2014 ASCRS surveys, vancomycin was the most commonly selected antibiotic for intraocular use. The precipitous decline in vancomycin's popularity is undoubtedly due to the newly reported association with hemorrhagic occlusive retinal vasculitis (HORV). Although HORV is extremely rare, it is associated with severe vision loss that is often bilateral.

It is also interesting that nearly 1/5 respondents are planning to initiate intracameral antibiotic prophylaxis in the coming year. That 19% of U.S. respondents are planning to adopt IC prophylaxis (despite the lack of an FDA approved product) may reflect mounting evidence in the literature to support the efficacy of this measure.

David Chang, MD, advisor,
Cataract Clinical Committee

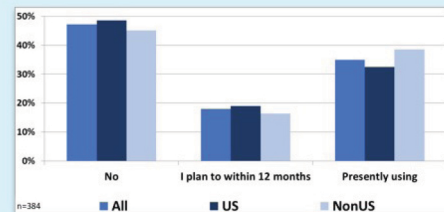
Which is your preferred intraoperative antibiotic injectable agent?

- 75% of respondents prefer Moxifloxacin or Cefuroxime
- Moxifloxacin: 43%
- Cefuroxime: 32%
- Majority of non-U.S. prefer Cefuroxime, 51%



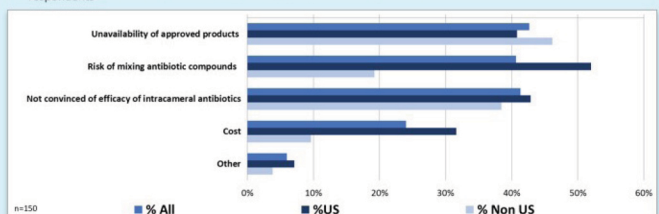
Are you planning on initiating intracameral antibiotic injections?

- Nearly half of the respondents do not plan on initiating intracameral antibiotic injections, 47%
- 35% are presently using (non-U.S.: 39%, U.S.: 32%)



Why are you not injecting intracameral antibiotics? (Select all that apply)

- Respondents evenly split:
- Unavailability of approved products: 43%
- Risk of mixing antibiotic compounds: 41%
- Not convinced of efficacy: 41%
- U.S. respondents average 1.7 reasons compared to 1.1 reasons for non-U.S. respondents



Key findings

On average, doctors reported an annual volume of 152 laser vision correction surgeries, including LASIK, PRK, and small incision lenticule extraction (SMILE). Non-U.S. ophthalmologists perform a higher volume of laser refractive surgeries annually, 171 compared to 138. Nearly half (49%) of respondents do not offer laser vision correction surgery.

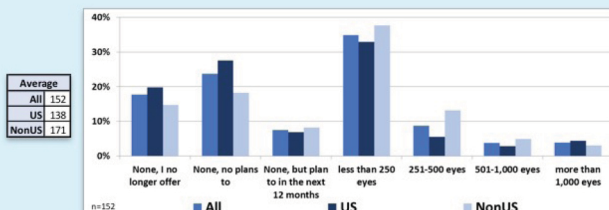
Of those who are performing corneal refractive surgery, 88% of U.S. doctors have wavefront-guided or -optimized systems. Non-U.S. doctors are four times more likely to perform standard ablations compared to U.S. surgeons, 28% to 7%, respectively.

The most interesting finding regarding laser vision correction is that half of the ophthalmologists polled do not perform LASIK, PRK, or SMILE. As patient expectations have increased and premium cataract surgery has expanded, there is an enormous unmet need to provide refractive enhancements to our patients. Refractive corneal surgery has never been safer or more effective. For those ophthalmologists currently performing refractive corneal surgery, you have the tools necessary to be successful. For the 50% not performing refractive corneal surgery, you should partner with someone who performs these procedures, or better yet, this would be a good time to consider adding this to your own surgical repertoire.

Eric Donnenfeld, MD, advisor,
Refractive Clinical Committee

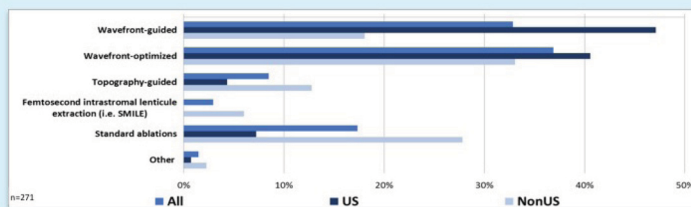
What is your average ANNUAL volume of laser vision correction (e.g., LASIK, SMILE, PRK, etc.) surgery?

- Respondents average approximately 150 LVC surgeries annually, 152
- Non-U.S. respondents are 24% higher than U.S., 171 to 138
- Nearly half of respondents do not perform laser vision correction, 49%
- Only 15% of those not currently using plan to in the next 12 months
- 36% no longer offer



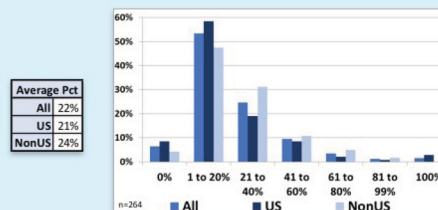
What category are the majority of your corneal refractive procedures CURRENTLY?

- 88% of U.S. respondents have wavefront, guided or optimized, corneal refractive procedures, 47% optimized and 41% guided
- Non-U.S. respondents are 37% points lower, 33% optimized and 18% guided
- Non-U.S. respondents are four times more likely to have standard ablations compared to U.S., 28% to 7%
- 6% of non-U.S. respondents use SMILE for the majority of their corneal refractive procedures



In what percentage of your patients do you think that LASIK has significantly increased the level of dry eye at 6 months postop?

- Overall, on average respondents think LASIK has significantly increase the level of dry eye at 6 months postop in 22% of their patients
- Non-U.S. slightly higher, 24% compared to 21% for U.S.



Key findings

Nearly half (47%) of respondents said they see 30 or more glaucoma patients per month (on average 40 patients). U.S. doctors reported seeing twice as many glaucoma patients compared to non-U.S. physicians (50 compared to 27 patients per month).

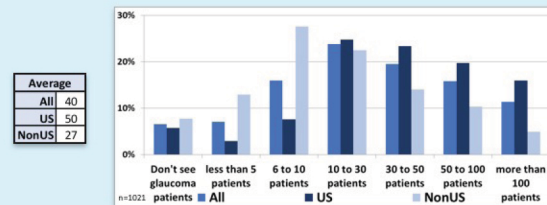
While 31% of all respondents only have a medical glaucoma practice, 40% perform microinvasive glaucoma surgery (MIGS) or laser procedures. U.S. doctors are more likely than non-U.S. doctors to perform MIGS or laser procedures. 44% of U.S. surgeons are performing MIGS in their cataract glaucoma patients, and 19% are doing it in the majority of their cataract glaucoma patients.

I think it is impressive that 44% of ophthalmologists in the U.S. are providing MIGS options to their cataract patients and another 30% expect to over the next year. I suspect lower percentages of MIGS adoption overseas is because of a slower rollout of the procedure and reimbursement nuances.

John Berdahl, MD, chair,
ASCRS Membership Committee

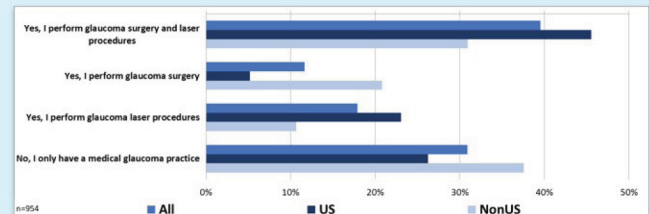
Approximately how many patients do you see PER MONTH that you would consider as having glaucoma?

- Overall, on average nearly half of the respondents see 30 or more glaucoma patients, 47%
- Average: 40
- 30% of respondents see less than 10 patients
- On average U.S. respondents see nearly twice as many, 50 to 27 for non-U.S.



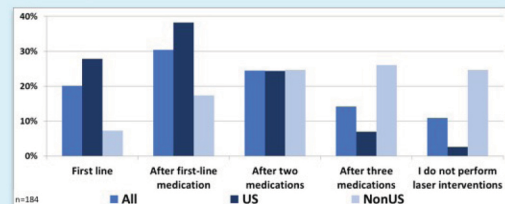
Do you perform any glaucoma surgery (including MIGS or laser procedures)?

- Overall, 40% of respondents perform glaucoma surgery and laser procedures
- U.S. 15% points higher than non-U.S., 46% to 31%
- Overall, 31% of respondents only have a medical glaucoma practice
- Non-U.S. 12% points higher than U.S., 38% to 26%



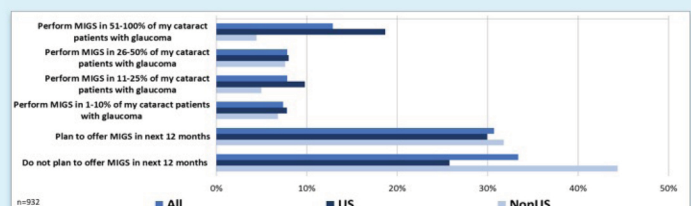
When do you initiate laser trabeculoplasty for your glaucoma patients?

- Overall, no response was selected by a majority of respondents
- Highest: After first-line medication, 30%
- U.S. and non-U.S. were very different, top 2 responses for each group were completely different
- U.S.: 38% after first-line, 28% first-line
- Non-U.S.: 29% do not perform laser interventions, 26% after three medications



Of your surgical cataract patients with glaucoma, which of the following best describes your use of/interest in microinvasive glaucoma surgery (MIGS)?

- Overall, 36% of respondents are using MIGS
- 33% do not plan to offer in the next 12 months
- U.S. respondents are using MIGS at nearly twice the rate of non-U.S. respondents, 44% to 24%
- 19% of U.S. respondents use MIGS in the majority of their surgical cataract patients with glaucoma, non-U.S. 4%



Key findings

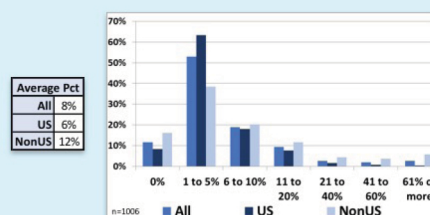
Overall, respondents reported that 8% of their cataract patients are referred to retinal specialists. Nearly 80% of those surveyed (78%) are confident or very confident in their understanding of anti-VEGF treatments on cataract patients.

I think OCT is essential in all preop cataract patients, and a retinal examination should be performed using an indirect ophthalmoscope. When it comes to anti-VEGF treatments, clinical trials have shown not all drugs are created equal in terms of outcomes. What's more, real-world experience data has shown that patients often receive an insufficient number of anti-VEGF injections because of prolonged treatment intervals; clinical trials have shown that across all diseases more injections drive better outcomes.

Steve Charles, MD, chair,
Retina Clinical Committee

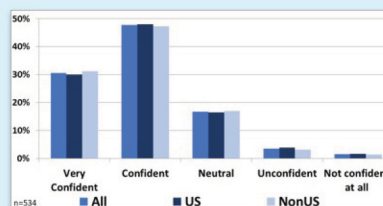
What percentage of your preoperative cataract patients are referred to a retinal specialist for evaluation?

- Overall, on average respondents refer 8% of their preoperative cataract patients to a retinal specialist
- Non-U.S. respondents refer twice the average, 12% to 6% for U.S.



How confident are you of your understanding of the anti-VEGF therapies and their impact on cataract patients?

- Overall, nearly 80% are very confident or confident, 78%
- U.S. and non-U.S. respondents are very similar
- U.S.: 78%
- Non-U.S.: 79%





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