

Surveys reveal global refractive surgery preferences

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in Paris

EUROPEAN refractive surgeons differ from their US colleagues both in terms of the equipment they own and the way they use it, recent surveys indicate.

In one survey, David Leaming MD evaluated the refractive preferences of 964 members of the American Society of Cataract and Refractive Surgeons. He compared the results of that survey with a subsequent survey of 500 European surgeons. He will discuss the results at this year's ESCRS Congress in Paris.

The comparison showed some similarities between the US and European surgeons. For example, 50% of the membership of both organisations reported that they do perform LASIK, and 40% from each group report that they also perform refractive lens exchange. However, LASEK is much more common in Europe, performed by 31% of surgeons in that region, compared with only 13% percent of those in the US.

European surgeons were also far more likely to implant phakic IOLs. Some 31% of European surgeons said they are already doing this procedure, while only seven percent of US surgeons have implanted those types of lenses. This is not particularly surprising, since the lenses have been available for some years in Europe but are not yet approved in the US. The ASCRS survey did show a high level of interest among members in phakic IOLs.

These findings were underscored by responses to hypothetical clinical cases. For a patient with -3.0 D of myopia, 86% of US respondents said they would recommend LASIK, compared with only 14% of European doctors. There was closer agreement on a patient with -7.0 D, with 87% of US doctors and 67% of European advising LASIK. However, for a patient with -12.0 D, 52% of the European surgeons would recommend implanting phakic IOLs, compared with 33% of their US colleagues.

Differences were also apparent on the hyperopic side. While 60% of US surgeons were comfortable suggesting LASIK for a $+1.0$ D hyperope, 60% of their European counterparts would advise the patient not

to have surgery. An even higher percentage, 69% of US respondents said they would advise a $+3.0$ D hyperope to have LASIK, as would 41% of European surgeons. For a patient with $+5.0$ D hyperopia, 44% of the US surgeons would opt for refractive lens exchange, compared with 34% of European surgeons. However, 34% of surgeons from both groups would advise the same patient not to have any surgery.

The choice of equipment appeared to reflect market conditions. While 70% of US surgeons say they mostly use the Visx platform, the Bausch and Lomb Technolas is the leader in Europe, cited by 41% of those surveyed. The Alcon Ladarvision platform was the second preference in both regions.

The Bausch and Lomb Hansatome was the microkeratome most used, cited by 52% of both groups. Moria microkeratomes were the second most used in both regions. The Amadeus microkeratome appeared to gain support among European surgeons.

The Intralase femtosecond laser keratome is catching on in America, with 52% of respondents saying they would like to use that instrument. Interest in the Intralase is beginning to appear in Europe, with 18% of respondents reporting they would like to use it.

Some 45% of US respondents and 76% of European respondents reported that they use wavefront analysers in their practices. The Visx Waveprint system was the reported favorite among US surgeons, while the European surgeons cited the Bausch and Lomb Zyoptix system as their first choice. The Alcon Ladar system was the second most cited in both regions.

"I'm not sure what to say about the wavefront. There was a significant rise in the numbers using it both in Europe and US, but I can't tell if this is just market pressure vs. real enthusiasm since I know a number of centers that recommend it only to those with significant higher-order aberrations," he told EuroTimes.

Dr Leaming's findings correlate with those of another survey conducted in 2003 by Kerry Solomon MD. He evaluated the refractive surgery preferences of ophthalmologists around the world in a survey of 1174 eye surgeons from North and South

America, Europe, Oceania, Asia, and Africa. He reported those findings in the July 2004 issue of the *Journal of Cataract and Refractive Surgeons*.

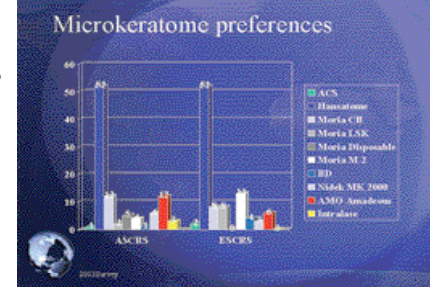
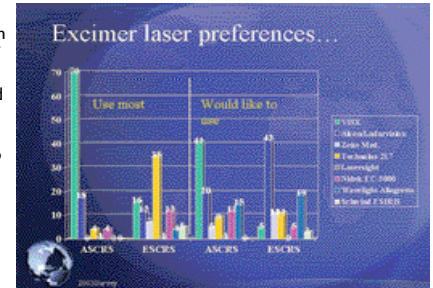
The survey respondents expected to see increases in volume of conventional LASIK, PRK and LASEK. A minority, 12%, said they expected to see an increase in custom ablation volume. Another 26% said they were not performing custom ablation but were planning to do so in the future. Some 21% said they would consider performing custom ablation once it was approved in their areas.

Dr Solomon's study revealed an intriguing link between refractive practice patterns and surgeons who themselves underwent refractive surgery. Nearly four percent of those surveyed had undergone refractive surgery, including LASIK, LASEK, clear lens extraction and phakic IOL implantation. A majority of those who underwent refractive surgery also performed refractive surgery in their practices. However, surgeons who had not undergone surgery were significantly less likely to perform refractive surgery in their practices.

Dr Solomon's survey showed similar findings to Dr Leaming's in terms of excimer laser and microkeratome choices in the US and Europe. On a global scale, the Visx lasers were the most commonly used, accounting for 56% of the total. The Bausch & Lomb Technolas® 217 was the leading laser among Asian respondents and the Nidek was most cited by surgeons in Latin America.

The global survey showed a wide variety in pricing for LASIK procedures. US practices charged the most, with the majority charging at least \$1500 per eye. Latin American prices were the lowest, at \$500 per eye. Europe was in the middle price range, with most surgeons saying they charged between \$1000 and \$1500 per eye. A majority of respondents worldwide said they expected prices to remain about the same in the near future.

More than 90% of the respondent said



they routinely performed preoperative corneal topography. A similar percentage said they measured scotopic pupil size, with an increasing number reporting that they were utilising infrared pupillometry. The number of surgeons saying they employed preoperative wavefront measurements more than double from the year before, to 23%.

Dr Solomon's study indicated that bilateral surgery has become the norm around the world. In particular, European and Latin American surgeons are more inclined to perform bilateral procedures than in the past. While most respondents, 78%, reported that they changed microkeratome blades with each new patient, half of European surgeons reported that they changed the microkeratome blade for each operated eye.

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