

# Practice Development

## Workshop and Masterclass



# 12-13

## November 2011

### Four Seasons Hotel, Dublin, Ireland

Open to ophthalmologists and those working  
in ophthalmology practices

### Registration fee: €300

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Update

## CATARACT & REFRACTIVE

# US LASIK SURVEY

## 2010 laser refractive volume up; younger patients suggest future growth

by Howard Larkin in San Diego

**U**S laser vision correction volume jumped to an estimated 960,000 procedures in 2010, up 27 per cent from 2009 but still well short of the estimated 1,066,000 procedures in 2005, according to analysis of the 2010 survey of American Society of Cataract and Refractive Surgery (ASCRS) members.

Growth was particularly strong in surface procedures. LASIK accounted for an estimated 680,000 procedures, while PRK and other surface ablations totalled 280,000, almost double the 127,000 estimated for 2005. The 15th annual ASCRS survey by Richard J Duffey MD, Mobile, Alabama, and David V Leaming MD, Palm Springs, California also showed a growing acceptance of intraocular lenses among US refractive surgeons.

Asked what procedure they recommended for a 30-year-old -10 dioptre myope, 44 per cent of ASCRS respondents opted for a phakic IOL in 2010, up from 23 per cent in 2005. For a 45-year-old +3 hyperope, 24 per cent opted for refractive lens exchange while 61 per cent would do so for a +5 hyperope. The results reflect growing awareness of the limits of laser surgery as well as the safety of modern lenticular approaches, Dr Duffey said.

The extrapolated laser volume figures from the 2010 ASCRS survey are at odds with other data that suggested a rise of one to two per cent, Dr Duffey noted. These include procedure card sales reported by Abbott Medical Optic's VISX, which was the laser most often used by 74 per cent of ASCRS respondents in 2010, and results from major commercial chains. However, the ASCRS numbers are roughly consistent with procedures monitored by SurgiVision DataLink software reported by Guy M Kezirian MD, Scottsdale, Arizona. However, his data suggested an uneven recovery, with many centres showing sharp increases in 2010 while others "fell completely off the map." Daniel Durrie MD, Kansas City, Missouri, was the co-author of this presentation.

The 2010 ASCRS survey response rate was similar to previous years at about 12 per cent, though it was only the second year the survey was conducted entirely online.

**Appeal to younger patients** Other studies reported at the 2011 ASCRS annual meeting showed an ongoing shift toward younger patients for LASIK. The average age of 225,128 patients TLC centres treated dropped steadily from about 39 in 2000 to about 35 in 2009, while the percentage of male patients grew from about 42 per cent to about 46 per cent.

"Patients are getting younger but they are still mostly over age 30," said Louis Probst MD, medical director for TLC Vision US outlets in Chicago; Madison, Wisconsin; and Greenville, South Carolina, US.

Dr Kezirian documented a similar age trend among nearly 180,000 eyes tracked by the SurgiVision software products he helped develop. From 2005 to 2010, patients under age 40 rose from 57 per cent to 70 per cent. The data also show a persistent bimodal distribution in patient age with a trough in the 36- to 46-year-old range – possibly due to issues with presbyopia, he speculated. Throughout the six years studied, though, the younger peak rose and the older peak declined.



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Guy M Kezirian MD

These findings suggest that while the "baby boom" generation is ageing out of the LASIK market, younger patients are increasingly welcoming the procedure, Dr Kezirian said.

"Surgeons have had a couple of bad years, but I think the future for refractive surgery is very bright. Understanding the demographic shifts will help surgeons develop marketing messages and techniques, including social media, to recruit new generations of patients." 2010 ASCRS survey data also show an ongoing concern for safety, particularly avoiding post-LASIK ectasia, Dr Duffey said. Nearly half reported having one or more documented case of post-LASIK ectasia in their career. 2005 was a watershed year, with new ectasia cases basically stable since then, he said.

The proportion of surgeons aiming for 100 micron flaps rose from 35 per cent in 2009 to 43 per cent, while those looking for 120 to 130 microns fell from 53 per cent in 2009 to 47 per cent. Those looking for a minimum residual stromal bed of 300 microns rose to 42 per cent from 31 per cent in 2009 and eight per cent in 2004. Conversely, those satisfied with 250 microns fell from 75 per cent in 2004 to 38 per cent in 2010. On the other hand, 51 per cent of surgeons were OK operating on patients with central corneal thickness of 480 microns or less.

Femtosecond lasers for flaps remained stable in 2010 at about 53 per cent after growing from about 21 per cent in 2007 to 55 per cent in 2009, Dr Duffey reported. Similarly, 55 per cent of surgeons used wavefront-guided custom ablations more than 75 per cent of the time in 2010.

Dr Probst also reported a shift in technique over time and a corresponding improvement in visual outcomes. In 2004, the majority of TLC patients were treated with custom ablations, and in 2006 more than half were treated with IntraLase instead of mechanical microkeratomes. Today almost all receive custom ablations and IntraLase.

The proportion of TLC patients treated for 3.0 dioptres or less of myopia also grew from 32.7 per cent in 2000 to 36.7 per cent in 2009. In his personal practice, 92.5 per cent achieved 20/20 or better uncorrected distance visual acuity in 2009, up from 74.6 per cent in 2000. Only 0.25 per cent lost two lines of vision in 2009, down from 1.14 per cent in 2000, and enhancement rates are now below three per cent.

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