YOU DON'T HAVE *THAT* IN YOUR US PRACTICE?

International surgeons name must-have devices not available to their stateside colleagues.

ERIK L. MERTENS, MD, FEBOPHTH

IOL Technology

I use trifocal, toric, and hyperopic phakic lenses in my practice. PhysIOL's trifocal implant, which received the CE Mark in 2010, quickly became my standard of care for treating patients with dysfunctional lens syndrome. In my experience, trifocal implants provide very good intermediate vision, which is lacking with the bifocal IOL designs.

To my mind, a toric phakic IOL is ideal for correcting astigmatism in a young eye, as I believe that corneal procedures do not produce stable outcomes over time. Incorporating cylindrical correction in a phakic IOL is therefore very useful in patients with myopia or hyperopia. In my experience, patients with a deep anterior chamber benefit greatly from STAAR Surgical's hyperopic phakic IOL.

Optical Coherence Tomography for Cornea, Glaucoma, and Retina

The AngioVue Imaging System (Optovue), introduced to markets outside the United States late last year, has been widely and enthusiastically adopted and is now in daily clinical use at over 400 sites. With applications including retina, glaucoma, and anterior segment, AngioVue technology has been the focus of more than 50 peer-reviewed scientific publications.

NOEL ALPINS, FRANZCO, FRCOPHTH

Very few technologies are available internationally that I do not have the opportunity to use in Australia. This country's Therapeutic Goods Administration works in parallel with European CE Marking as a general standard of acceptance.

IOL Technology

My favorite multifocal lens is now the Symfony (Abbott Medical Optics), which I consider to be a step up from its predecessor, the Tecnis Multifocal. I am much more relaxed about recommending the Symfony to patients who want total spectacle freedom after cataract surgery. I still warn them, however, of the risk of reduced contrast sensitivity at distance, halos around lights, and the fixed focal distance covered by the IOL. My patients rarely complain about these issues, and the lens' depth of focus in emmetropic eyes gives patients the ability to work at near, read, and see the computer without requiring added correction.

Laser

I believe that the recently available Schwind Amaris 1050RS laser provides benefits over other lasers available in the United States. In my experience, the speed of treatment is helpful, particularly for high corrections, and its transepithelial programmed ablation is effective. More important to me is its ability to treat astigmatism. The device uses an active rotational tracker and can employ vector planning with wavefront-guided treatment by independently rotating spherocylindrical second-order aberrations from the higher-order aberrations. The 7-D tracker is unique and precise.

Visumax small-incision lenticule extraction or SMILE laser technology (Carl Zeiss Meditec) is gaining popularity at some centers in Australia. This device is certainly worthy of consideration.

Vector Planning

Vector planning (Alpins Statistical System for Ophthalmic Refractive Surgery Techniques or ASSORT) is a modality in the treatment algorithm I use on each and every patient with astigmatism. In my experience, the treatment provides superior results by leaving patients with less corneal astigmatism and an enhanced refractive outcome postoperatively. I have used vector planning for approximately 20 years, and I believe that the outstanding outcomes I have achieved are the reason that the number of my laser vision correction treatments has increased in recent years rather than declined. This is very gratifying when I read of decreasing volumes in other parts of the world such as the United States.

Corneal Collagen Cross-Linking

Keratoconus is a common condition in patients presenting to laser vision correction practices. The most common reason they are deemed unsuitable for PRK

for refractive benefit is excessive corneal irregularity or instability or progressive disease. There are no restrictions on the use of corneal collagen cross-linking (CXL) in Australia. One can use the Dresden Protocol or one of the faster, higher-energy laser applications, with the epithelium on or off. Much has been published on this subject, and one can follow new refinements as they are validated.

ARTHUR B. CUMMINGS, MB ChB, FCS(SA), MMED(Ophth), FRCS(Edin)

Laser

Although topography-guided laser vision correction is approved in the United States, its use for secondary procedures and complex cases is still off label there. I would imagine that US surgeons are keen to use this technology for repair work, not just first-time treatments.

It will not be long until the SMILE procedure is approved in the United States, as the FDA studies are already underway.

The Schwind Amaris 1050RS excimer laser has enjoyed significant success outside the United States, and I expect it would provide good competition on the US market.

IOL Technology

Trifocal IOLs are performing even better than I expected. I believe these will replace current bifocal implants.

CXL

Sadly, CXL remains on lists such as this every year. It is really high time that US patients had access to this treatment.

SHERAZ M. DAYA, MD, FRCS(Ed), FRCOphth

Trifocal and Trifocal Toric IOLs

Trifocal lenses are in many ways the ultimate in terms of providing patients with spectacle independence and a full range of focus following cataract surgery or refractive lens exchange. I use both the FineVision (PhysIOL) and AT LISA Tri (Carl Zeiss Meditec) and have been doing so for the past 5 years. More than 90% of my patients undergoing refractive lens exchange or cataract surgery will be recipients of this type of lens. Patients' outcomes are very good, and their reactions are very similar to the "wow" after LASIK.

Toric Collamer Lens

Implantable toric phakic lenses have been available in the United Kingdom for more than 1 decade and are used in an increasing number of patients who have high astigmatism. In my experience, the Visian Toric ICL (implantable collamer lens; STAAR Surgical) provides rapid visual recovery without two procedures (implantation of an ICL [spherical equivalent]) and then "topping off" with an excimer laser ablation at a later date. The implant can also be successfully used in eyes with forme fruste keratoconus or keratoconus that have been stabilized through CXL and are able to obtain good visual acuity (≥ 20/40) with spectacles.

Sulcus-Fixated Spherical and Toric Implants

Sulcoflex Pseudophakic Supplementary IOLs (Rayner) can be placed in the sulcus of pseudophakes and can be used to rapidly correct residual refractive error. These IOLs are an excellent alternative to PRK and LASIK, which in the elderly population can compound problems with dry eye disease and, in turn, compromise vision. The process of calculating the lens power is very simple using online software in which the residual refractive error is entered along with several other parameters. The lens is inserted through a 2.2-mm incision and placed in the sulcus. As an additive procedure, the lens can be used in patients and replaced if needed. There are multifocal and multifocal toric Sulcoflex IOLs available, but the lens is a zonal refractive and not a diffractive. My experience with zonal refractive lenses has not been good, so I do not implant these lenses. ■

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