



The MacuScope is proving increasingly popular in the US



The Heidelberg Edge Perimeter attracted much interest



New software features were released for the Optos retinal scanner

Stateside equipment

In the second of his reports from this year's American Academy of Optometry in Tampa, Florida, **Bill Harvey** looks at some of the instruments and equipment launched or promoted at the event

The American Academy of Optometry meeting is always a useful way to spot trends in equipment and instrumentation that may eventually hit the UK market. This is particularly true for ophthalmic instrumentation, but less so for other products, notably contact lenses. The very different US contact lens market often means lenses are launched in Europe well in advance of the US.

Instruments increasingly familiar to the UK were noticeably high profile this year. OCTs, for example, are now standard pieces of kit in most US practices and had a significant presence in the exhibition hall. They were also responsible for a glut of papers looking at OCT assessment of eye disease. Similarly, the MacuScope is growing in popularity in the US, as is the Notal Foresee PHP (see page 37). Both are seen in practices that specialise in visual impairment and macular degeneration. The iCare tonometer – popular in the UK among domiciliary groups because there is no need to use an anaesthetic – had just received FDA approval and was on display and drawing much interest among US practitioners.

Instruments

Perhaps the instrument generating most excitement this year was the Heidelberg Edge Perimeter (HEP), was the subject of several presentations,

most notably one by **Professor John Flanagan** (Toronto). 'The HEP is designed to investigate the earliest possible functional damage in patients with glaucoma,' he explained. Conventional fields assessment relies on significant neural damage before repeatable field defects are measurable. Repeatability is also a problem. The ocular hypertension treatment study indicated that 66 per cent of patients 'returned to normal' on repeating a suspect field plot. The HEP relies on flicker defined form, a new stimulus that specifically targets the M-cell pathway shown to be highly sensitive to functional loss in early glaucoma. On being asked how the instrument differs from the frequency doubling technology from Zeiss, Flanagan pointed out that the HEP uses flicker, whereas the FDT relies on perception of an illusion. Watch out for a detailed review in *Optician* in the new year.

Optos launched a new software package (V2 Vantage) for its scanning laser ophthalmoscope. The wide field available with the Optos limits magnification, making detailed analysis of smaller structures such as the disc and macula difficult. The new software includes ResMax which scans the posterior pole of the eye, resulting in a 10 to 15 per cent increase in resolution, giving a much more detailed and magnified central retinal view. Other features include a 'targeted ophthalmoscopy mode'

which rotates the view to match that seen through a fundus viewing indirect ophthalmoscopy lens. The image artifact counting facility automatically tallies specific lesions, while a 3D wrap function projects the patient's actual retinal image onto a 3D simulation to help inform the patient about their eye. All this is apparently easily introduced onto existing machines so all Optos users out there prepare for an upgrade.

Zeiss was boasting its new Atlas corneal topography system which has several novel features. Accuracy has been improved by SmartCapture which takes 15 images per second and then chooses the most reliable. The system also has dispensed with a visible Placido ring display to improve patient compliance, pupillometry at two illumination levels, and automatic measurement of the horizontal visible iris diameter. Refractive surgery centres will find this system of great interest. The Pathfinder II software provides corneal screening and is able to detect the earliest stages of diseases such as keratoconus. This latter system is still in development but will be one to look out for.

A new functional vision analyser was launched by Stereo Optical Company. This instrument can carry out most of the usual acuity, colour and stereo checks we have come to expect from screeners as well as a useful contrast sensitivity test. The results of this could then be displayed

to the patient in simulated day and night images. Poor contrast could be explained by useful photographic representations.

Spectacles

The high profile of the medical and technological at this meeting does tend to overshadow the optical appliances somewhat. Essilor had a presence and was promoting its Varilux Physio. The big selling point this year was that the lenses were 'proven to increase contrast sensitivity by up to 30 per cent'. This translates, according to Essilor, into 'brighter colours, sharper details'. The UK is likely to soon see a big push for these lenses, emphasising their improved contrast potential.

Some weeks ago at the Essilor Symposium (*Optician* October 12), Dr Ian Pearce demonstrated how the best way to minimise evaporative dry eye was to use some form of goggle to maintain local humidity at the ocular surface. Already available in the US - but yet to make any inroads in the UK - is the TranquilEyes goggle designed for exactly this purpose. Available in a range of designs and with different coloured eyepieces, this is marketed as a fashion item but is proving popular with the growing dry eye population in the US. A moistening pad is inserted into the goggle before use and this creates the extra humidity that reduces dry eye symptoms.

Contact lenses

The contact lens world was reasonably quiet at this year's event. CooperVision paraded the Proclear Multifocal Toric which had been released earlier in the year. The company's Proclear 1 Day lenses are also the latest attempt to try to crack the notoriously resistant US daily market.

Californian company SynergEyes presented a hybrid contact lens

with an RGP optic surrounded by a hydrophilic skirt which is available in a variety of forms, including a multifocal lens, a keratoconic lens, and an FDA cleared lens designed to correct oblate corneas.

Alcon promoted its Restor aspheric multifocal intraocular lens which has been improved to reduce spherical aberration to result in a '70 per cent increased clarity at 6/6'. Several papers were presented showing excellent visual results with this diffractive lens and Dr Rick Potvin of Alcon called on all optometrists to use their influence in educating patients about the potential for presbyopic correction.

Therapeutic agents

A new antibacterial agent, AzaSite, was launched at the conference by Inspire Pharmaceuticals. This azithromycin based drug has not previously been used in a topical ophthalmic preparation due to its inherent instability. However, the company has developed a gel-like drop which liquefies upon contact with the tears. The drop in trials have shown excellent bioavailability, and that the drops remain stable for much longer than previously had been possible. The advantage of azithromycin is that it maintains high concentrations in tissues for a long time, meaning that lower dosage (and therefore better patient compliance) is possible. Two drops for two days followed by a single drop per day for the remaining seven-day course is significantly less application than is required with existing antibacterials.



TranquilEyes
for dry eyes

Bausch & Lomb had a number of new products, in particular the OcuVite diabetic formula, which is not yet available in the UK. This vitamin supplement is being marketed in the US at optometrists as 'specially formulated to help meet the eye health needs of diabetics'. The theory proposed is that the antioxidant effects of the vitamins may reduce the oxidative stress processes known to contribute to retinopathy progression. It was interesting to note the small print: 'not intended to diagnose, treat, cure or prevent any disease'. Other products the company released included Alaway (an antihistamine) and Soothe XP (an updated version of the original Soothe lubricant).

Another lubricant launched was the Oasis Tears with Oasis Tears Plus. This is another of the increasingly successful viscoadaptive formulations which help maintain lubrication with every lid movement.

Low vision

Low vision is big business in the US. Every year new aids are launched at the AAO and this year was no exception. Ocutech introduced the VES Sport, a bioptic telescopic system which focuses as close as 20cm and is both lightweight and sleek. For those with acuities between 6/18 and 6/120 this may prove useful for spotting tasks without being too stigmatising. Another company, Freedom Scientific, (US distributors of the well known JAWS software) launched a new software bundle called MAGic which combines an onscreen mouse-controlled magnification facility with a speech translation option so the user can hear what is being displayed on screen. Every year electronic LVAs come on in leaps and bounds and they are making positive inroads in the UK now too. ●

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