OCT tops wish list

Research on instrumentation reveals 80 per cent of potential visitors to Optrafair are keen to see the latest equipment

There can be few elements of optical practice that have changed as radically as technology in recent years. The imaging and processing power now available to practitioners could only have been dreamt of a few years ago. Many modern instruments provide investigative powers far in excess of those available when most ophthalmologists trained, let alone optometrists, most of whom trained using just the humble ophthalmoscope.

Earlier this summer *Optician* conducted research among a representative sample of its database to determine the types and volumes of instrumentation used in UK practices. We also quizzed our readers on the kind of technology they would be interested in acquiring in the near future. The research was sponsored by Birmingham Optical Group, a leading supplier of practice equipment and the provider of Nidek equipment in the UK. Birmingham Optical Group supported the research to quantify the technology used in practice, measure intentions for future technology and assess attendance and activity around Optrafair 2011.

1 Nidek AFC-210 Fundus Camera
2 Nidek RS-3000 OCT
3 Nidek LM-1200 Auto Lensmeter
4 Nidek RT-5100 Phoropter Head

Prospective buyers

The results relate to a sample of over 300 responses drawn from the *Optician* database of over 8,000 UK eye care professionals. The survey was conducted by email during July and August. Of those responding, 61 per cent are optometrists, 28 per cent dispensing opticians and 5 per cent contact lens opticians. Of these, 59 per cent work in independent practice, 27 per cent in a multiple and 5 per cent in a franchise. Supermarkets, hospitals and educational establishments make up the difference. The majority of those responding to the survey have involvement in buying new technology. That figure among independent practices was 75 per cent.

The most common types of technology currently in practice are field screeners (91 per cent) and tonometers (89 per cent). Fundus cameras are now the third most used piece of technology on 66 per cent, but this has not diminished its desirability as a new piece of equipment to buy.

The use of digital lensmeters and autorefractors differed markedly between different types of practices. Digital lensmeters can be found in 50 per cent of multiple practices, but in 63 per cent of independents. Autorefractors on the other hand make their way into just 33 per cent of independents, but 64 per cent of multiples.

Differences in the use of autophoroptors and topographers were even more pronounced. While 18 per cent of independents have a topographer, just 5 per cent of multiples use them. Autophoropters, on the other hand, find a home in 34 per cent of multiples but 18 per cent of independents.

Lens edgers can be found in 43 per cent of practices, and just 34 per cent of multiples, while diagnostic equipment such as pachymeters are found in 13 per cent overall and just 4 per cent of multiples.

Intentions to buy new equipment were also gauged, with 31 per cent intending to buy new technology. Leading the wish list is fundus cameras, with 26 per cent saying they intended to buy such equipment in the coming year; digital imaging was cited by a further 12 per cent. Another hot spot for technology is optical coherence tomography. Currently just 10 per cent of practices have an OCT, a tiny 6 per cent of multiples, but 23 per cent intend to buy one in the coming year. Pachymetry is also high on practices' shopping lists, with 20 per cent intending to buy a pachymeter in the next 12 months. Autophoropters were on the list of 11 per cent of practices and 9 per cent intended to buy either an autorefractor, field screener or tonometer. Seven per

cent want a topographer or a digital lensmeter and just 4 per cent an edger. A variety of other specialist equipment such as macular pigment density or scotopic sensitivity instruments were mentioned by 21 per cent.

Financing

The survey also looked into the methods of payment preferred by practices. A wealthy 36 per cent opted for cash, but a more logical 46 per cent opted for leasing and 18 per cent for a loan.

In the run-up to Optrafair the Birmingham Optical Group-sponsored research also asked about intentions to attend the exhibition. Overall, 35 per cent have decided to go to Optrafair but more independents (49 per cent) than multiples (22 per cent) have made the decision to attend. Those not going make up 17 per cent of the total and 4 per cent have not heard of the show. One in four have yet to decide if they want to go or not, with 45 per cent of multiples and 36 per cent of independents undecided.

If they are going, 80 per cent are interested in seeing equipment at Optrafair, with OCT (54 per cent) topping the wish list, followed by digital imaging (42 per cent), fundus camera (38 per cent), pachymeter (29 per cent) and field screener 28 per cent. Topographers (22 per cent), autophoropters (20 per cent), digital lensmeters (20 per cent), tonometers (19 per cent), autorefractors (18 per cent) and lens edgers (15 per cent) were also mentioned.

The trend to buy these pieces of technology was the same, if at a somewhat lower level when it came to the intention to buy. OCT is still the most sought after technology with 14 per cent, the fundus camera is on 9 per cent, field screener and pachymeter on 7 per cent. Six per cent intend to buy either a digital lensmeter, tonometer or some digital imaging equipment, while 5 per cent want an autorefractor, autophoropter or lens edger. Three per cent want a topographer, while 6 per cent stated another type of equipment.

There was some good news in the survey for *Optician* too. When asked which methods they used to find out about new optical technology, 83 per cent said optical magazines. This was followed by exhibitions on 49 per cent, optical websites on 38 per cent, company literature on 30 per cent, company agents on 16 per cent, direct mailshots from manufacturers and distributors on 16 per cent and email marketing from makers and distributors on 9 per cent.

A lab for the toughest jobs

Optician travels to Otley in Yorkshire to visit Lentoid, a long-standing lab that specialises in complex lenses and works with several eye hospitals

Since being established in 1972, Lentoid has employed as many as 85 people at any one time at its extensive premises in Otley, Yorkshire. The current staff levels are limited to a dozen or so, reflecting the company's modern focus on the more specialist end of the lens market while also providing a strong glazing service.

'This is the 39th year that we have been in operation,' says Ian Jackson, co-founder and co-owner of Lentoid with John Bolton. Three of us started the company; the other two were engineers by trade whereas I was from an accountancy background. The three of us met while working at an optics-related firm in Bradford. When we were offered the opportunity to put some money into the firm, we thought if we were going to do something like that maybe it would be better to go on our own.'

Jackson explains that when they first set up Lentoid none of them had actually made a lens. 'The first thing we did was buy a copy of British Standards so we knew which tolerances we had to work to. From an engineering point-of-view we knew the procedures but had no practical experience as such of making an actual lens. We started over the other side of Otley and moved to these premises with the plastics side of the business before eventually situating the glass operation and everything else here too.'

Today a big part of what Lentoid does is the supplying lenses for high prescriptions and other complex jobs that are not typically done elsewhere – although the lab also turns over regular jobs to a high standard.

'We take pride in not only getting difficult jobs done but getting them done quickly,' notes Jackson. 'Speed of service is particularly significant in the treatment of very young children as some of the youngest recipients of our spectacles may be as little as six weeks old.'

Hospital work

Jackson explains that the first time that Lentoid got involved with working with hospitals was after receiving several phone calls from practices asking for +40 lenses to be made up. 'We were wondering why everyone was asking for the same thing and it turned out that one of the children's eye hospitals had a baby that was definitely going to go blind if they could not get the muscles working. So we made the lenses –

JOB EXAMPLE

Bi-concave lenticular photochromic 1.56 Index Sunsensor grey

Some of the Lentoid staff who deliver the complex jobs that are not typically done elsewhere

John Bolton personally did the work and Vertex made a one-off frame and the baby's eyesight was saved.'

'It went from there really; David Sprittles, who was senior dispensing optician at Great Ormond Street Hospital for Children, found out that we were prepared to have a go at anything and when word spread, other hospitals got in touch too with stuff people can't do that we will have a go at. We also made all sorts of lenses for use in science too.'

A recent accomplishment for the Lentoid team was the construction of a hyperocular Franklin split lens with a distance power of X6 and a reading power of X12, although Jack Jones, senior works engineer responsible for its construction plays, down the difficulty of making it.

'With jobs like that it is just a case of looking at it as an engineering problem – how to fit A into B,' he explains. 'There can be a lot of unnecessary mystique in the optical industry, you just need to cut through that and get the job done. We have modified all the machines here to work to wider ranges and that is the most difficult thing really,' says Jones.

'We've got over 30 years' worth of tooling on the tool racks and that is very handy when you are doing higher powers as the correct tool is usually already there,' adds specialist lens adviser Andrew Myers. 'Also for requests like a bifocal, say -20 and +6, you have to be realistic as to the size of the lens that can be constructed and what frames can go with it. We do the glazing too and a practical solution is the only way to get tough jobs done.'

The willingness to make modifications is also applied in the Lentoid office, where the computers run specially programmed applications and databases to allow the high powers that make up much of the work to be input.

Glazing responsibility

Lentoid mainly works for independent practices but also does the difficult jobs for many multiples. 'The likes of Specsavers and Vision Express are geared up to dealing with 90 per cent of the market and don't want to handle the difficult 10 per cent, so they send it to us,' says Jackson. 'We work with practices all the way from Scotland to the south coast. I think we offer big benefits to optical practices as they can send us any job and know we will get it done one way or the other. Another upside for them is that because we do the glazing too it means that making the lenses actually work in a frame is our responsibility.'

Jackson notes the changes in the wider optical industry that have led to changes at Lentoid. 'We used to do as many as 200 pairs of glass lenses as well as 500 in plastic each day. These days it is more like 25 glass on a good day and we have considered wrapping that side of the operation up, but as there aren't necessarily any labs that can take over the glass business we keep going.

'Of course you've got to make money but we get a lot of satisfaction of from helping people too.'