



Putting education into practice

What can contact lens educators do to help increase the number of contact lenses around the world? The 2017 IACLE Congress on Contact Lens Education provided some answers...

Contact lens educators have an essential role to play in ensuring students have the theoretical knowledge and practical skills needed to fit contact lenses. But they must also equip these future practitioners to communicate the benefits of contact lenses to patients and how to continue wearing them successfully.

‘Let’s get more lenses on more eyes’ was the take-home message from the IACLE Congress on Contact Lens Education, held in Hyderabad, India on 9-10 September. The congress was timed to precede the 2nd World Congress of Optometry, also in Hyderabad, where IACLE provided the contact lens stream and was closely involved throughout the program.



Over 100 delegates from 20 countries – educators, industry representatives, IACLE board and staff – joined the IACLE Congress at the L V Prasad Eye Institute. The meeting was facilitated by IACLE thanks to the generous support of industry partners Alcon, CooperVision and Johnson & Johnson Vision.

Nearly half of the delegates were from India where – as in many parts of the world – contact lens educators also work in clinical practice. Other Asian countries and the Middle East were also well represented, although educators came from all three of IACLE’s global regions, including countries as diverse as Eritrea, Guatemala and Trinidad & Tobago.

The theme for the congress was ‘Translating contact lens knowledge into increasing contact lens penetration’. Compiled by IACLE Vice President **Dr Luigina Sorbara**, the two-day program featured a combination of updates on the latest thinking on contact lens management, and practical ways to improve teaching and assessment techniques. Here are just some of the highlights of the Congress.

NOTE: PowerPoint presentations from the IACLE Congress are available via Member Login, under Contributed Resources – Presentations/Lectures

Top ten tips for contact lens success



After an introduction by **Professor Gullapalli Rao** (left), chairman of LVPEI and former IACLE Asia Pacific Regional President, IACLE's Treasurer **Dr Etty Bitton** and President **Dr Shehzad Naroo** opened with their top 10 tips for proactive contact lens education and wearer success.



Patients should be educated that maintaining ocular surface health is their responsibility, emphasising the need for strict hygiene measures and the importance of aftercare. Contact lens-related infection is rare and patient factors such as poor handwashing, topping off solutions and extending lens wearing time or replacement interval, are modifiable behaviours. Strict storage case hygiene and avoidance of contact with tap water were particular concerns, said Dr Bitton.



Discomfort is the primary reason for dropout in established wearers and advancing age influences the reasons for discontinuation. Yet a recent study found poor vision is a more important factor than previously thought, and the most common reason for dropout in the first year of multifocal wear.

Evidence-based resources could help educate patients about healthy lens care habits – from [BCLA factsheets](#) and [AOCLE guides](#), to materials from the [US Centers for Disease Control and Prevention](#) and [Centre for Contact Lens Research](#). Explain the known risks to wearers of buying lenses via the internet and emphasise the value that professional fitting, supply and aftercare provides, said Dr Naroo. Industry body Euromcontact has a useful guide, [Contact Lenses, the Internet and You](#).

[IACLE Resources](#) offered members a wealth of teaching aids to increase and assess student knowledge. Help was also available to evaluate proficiency and determine the competency of students. Evaluation forms used by the [National Board of Examiners in Optometry](#) were just one example. Delegates were urged to transfer their own passion for contact lenses to their students and encourage them to continue their contact lens education.

Proper work-up protocol



For **Dr Luigina Sorbara**, the preliminary discussion of contact lenses with the patient was an opportunity to gain valuable information and build trust. Set the scene with facts about contact lenses (myths vs realities) then establish the patient's principal reason for wearing them and his/her expectations.

A careful case history was a key element of the contact lens work-up, said Dr Sorbara. And students were not getting enough information from lifestyle questions to determine patients' specific visual and lens wear requirements.

For each stage of the protocol, ask yourself: why are these data required? An example was horizontal visible iris diameter (HVID), which needed to be measured since two eyes with the same

keratometry readings could have vastly different sagittal heights – and therefore lens fitting characteristics – depending on corneal diameter.

Discuss the available lens options with the patient before making a specific recommendation. Importantly, emphasize innovations in contact lenses and the many differences between products in material, design and fit. Moving from one product to the next could help patients if they ran into problems, she said.

Points to communicate should be tailored to lens type; when offering daily disposables, focus on the benefits rather than technical features and educate patients on the health benefits of the modality. With multifocals, explain that – unlike progressive spectacles – contact lenses offer vision in all directions of gaze, as well as at all distances.

Finally, Dr Sorbara reviewed contraindications to contact lens wear and profiled the characteristics of a good, borderline and poor candidate.



Importance of aftercare and follow-up

Moving from patient selection and examination to aftercare, IACLE's Asia Pacific Regional President **Dr Rajeswari Mahadevan** reviewed the importance of patient compliance to lens wear and care instructions, and looked at how compliance could be improved. As many as nine in 10 contact lens wearers did not comply fully with all steps, she said.

Among possible reasons for non-compliance were giving too much information in one session, or conflicting advice, as well as the risk-taking propensity of the patient. Saving money, time pressures, perceived lack of harm from non-compliance or simply forgetting instructions were other factors. One surprising finding was that internet purchase was not associated with a more risky pattern of contact lens use.

Daily disposables improved some aspects of compliance but were not the solution to all problems; some patients would reuse their lenses and, although very low, there was still some risk of infection.

Dr Mahadevan's top 10 tips for improving patient compliance through education were:

- Put instructional videos to use
- Make time for personal instruction
- Show them you care
- Review lens care at every visit
- Get their attention
- Let them read all about it
- Offer solutions in your office
- Keep patients coming back for more
- Get your patients to commit



Turning challenge into opportunity

Dr Dwight Akerman, Global Head of Professional Affairs at Alcon, said the biggest challenge in contact lenses – lack of patients – was also the greatest opportunity. Increasing penetration from just over 2% of the world's population to twice that level would mean more investment in R&D, more consumer outreach campaigns and more educational support.

The 'leaky bucket' of contact lens dropout meant that the number of lens wearers had stayed the same in recent years. So what could be done to change that paradigm?

For Dr Akerman, the first step was to teach students and practitioners to proactively recommend contact lenses and improve their communication with patients. Both groups were too focused on the patient's chief complaint and needed to ask simple questions, such as: are there times when you'd like to see clearly without your glasses?

There were multiple reasons for dropout but many patients were still wearing old-technology products and suffering from dryness and discomfort. Recommend advanced designs and materials, and simplify the fitting and follow-up process. And let's do a better job at educating students and practitioners on the value of contact lens wearers to a practice from the business viewpoint.

'We need to embrace the new delivery model for contact lenses – the internet is here to stay,' he said. Practitioners needed to supply lenses via their own websites, separate product costs from professional fees, and adopt subscription models for regular payments.

Developments in the presbyopia category were an area of great focus for Alcon. New materials were also in the pipeline for the near future to enhance wearer outcomes. Research funding was available through Alcon's [Investigator Initiated Trials](#) scheme.



IACLE resources and programs

IACLE's Director of Educational Development **Dr Lewis Williams** reviewed the wealth of resources available from IACLE to support its members. All but one of the 30 modules in the [New IACLE Contact Lens Course](#) had been fully revamped and updated in a more consistent style.

ICLC was not a recipe for how and what should be taught – educators could adapt it to suit their local needs, he said. An additional module on Myopia Management would be added soon.

The [Student Trial Exam](#) was available in six languages to assess the knowledge of final-year students. Each student received a confidential report on his/her performance and the educator benefits from an overview of all students' strengths and weaknesses.

New for 2017 was [Research Update](#), monthly summaries of key papers published in peer-reviewed journals to help educators keep up to date with the latest developments, teach evidence-based practice and host journal clubs within their institutions.



In 2018, the [Distance Learning Program](#) will be updated to match the New ICLC and help candidates prepare for the following [Fellowship Exam](#). January will mark the launch of a new IACLE Image Collection, with a member-donated Image of the Month featured in our [Global Member Newsletter](#) and an Image of the Year awarded at the end of the year. More details of the IACLE Image Collection from Director of Educational Programs and Congress Program Coordinator **Nilesh Thite** will be on our website, along with a submission form.



Minimum acceptable competency for practical exams

IACLE Global Education Manager and Congress Manager **Dr Lakshmi Shinde** described a pilot scheme in India to establish a common assessment pattern for students' practical assessment in contact lenses.

When devising the organisational structure for any course, the first step was a situational analysis to determine the need for that course in that country. The next step was to examine the competency standards needed to achieve those services, then plan the curriculum and implement learning interventions. The final step was evaluation.

Competency was the ability to perform the activities within an occupation to the standard expected and involved both knowledge and skills. Contact knowledge could be assessed using the IACLE [Student Trial Exam](#) but students also needed to demonstrate their skills in practical exams.

A Train-the-Trainer meeting led by IACLE Regional President EMEA **Judith Morris** devised practical assessment sheets for RGP, soft and toric soft lenses. The pilot study in two Indian schools ([Nagar](#) and [Hari Jyot](#)) trialled these assessments alongside the STE at the end of students' third year, with educators acting as external examiners for other institutions. Tasks examined were pre-fitting and initial trial lens selection, and spherical soft lens assessment. Students were informed of the exam pattern, evaluation sheet and marking scheme.

Issues identified were difficulty distinguishing steep, flat and optimum lens fit, failure to record aspects of lens fit and problems applying lenses. A key finding was that students needed to improve their 'soft skills' to interact with patients effectively and with confidence.

A second pilot study in two further schools ([Bharati Vidhyapeet](#) and [Lotus](#)) used the same tasks for fourth-year student assessments. Keratometry technique and communication ('reading' the patient and making them comfortable) were common issues, but students' time management was the biggest concern. Standard evaluation case sheets could be developed to use across the world and FIACLEs used as external examiners, said Dr Shinde.



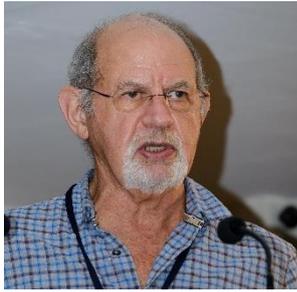
Myopia management

Dr Gary Orsborn, Vice President of Global Professional & Clinical Affairs for CooperVision, reviewed recent company news and product developments. He described initiatives such as the CooperVision-Optometry Giving Sight [One Bright Vision](#) Child Eye Health Program, its support for the Myopia Management Meeting at the 2017 International Myopia Conference.

Dr Orsborn summarised the safety of soft contact lenses in children and recommended the [recent review paper](#) by Bullimore. CooperVision's latest product was MiSight 1 day with ActivControl technology that reduced myopic progression in children by 59% and axial length change by 52% over a three-year period compared to a control group. The company also acquired the Procornea orthokeratology technology in August 2017.

Academic initiatives included the [FORCE Student of the Year](#) and [Adopt a Patient](#) programs for students and educators. Under its [Science and Technology Awards](#) program, the company offers

CooperVision Seeding Award up to a maximum of US\$100,000 and the US\$400,000 CooperVision Translational Research Award.



The best of both worlds – daily disposable silicone hydrogel lenses

Former IACLE Vice President **Professor Desmond Fonn** reported that despite growth in the daily disposable modality and adoption of silicone hydrogel (SiHy) materials, the daily disposable SiHy sector had not grown at the same rate as SiHy reusables. Why should that be? For some reason, optometrists tended to be conservative in adopting new technologies, he said.

Professor Fonn's group had revisited the [Holden & Mertz](#) critical oxygen levels for oedema-free daily (Dk/t 24) and extended contact lens wear (Dk/t 87). Reviewing study data from two centres, they found corneal swelling without a lens was nearer 3-3.5% than the 4% assumed in the original study. That meant that a lens of 150-190 Dk/t was needed to produce no more overnight swelling than a non-lens wearing eye.

For daily wear, looking at profiling across a range of powers, some low Dk hydrogels failed to meet the minimum value to avoid corneal hypoxia at all points under the lens. A study of four different SiHy lenses in three powers showed a range of swelling values between individuals, independent of lens type.

Clinical consequences of corneal hypoxia that remained a concern with hydrogel lenses were limbal hyperemia, increased myopic progression and neovascularization. Conjunctival staining and indentation and upper palpebral roughness might be slightly higher with SiHys than hydrogels. There were no significant differences in VA, comfort or adverse events rates, but SiHys produced about twice the rate of corneal infiltrative events (CIEs) as hydrogels.

Perceived barriers to SiHy daily disposables use were cost, lack of parameters, potential discomfort and allergic response. But the cost of some SiHy options was now similar to hydrogels, a wider range of parameters was available, there was no real difference in comfort, and silicone did not elicit a response from the immune system. The benefits of SiHys daily disposables were summarized [here](#).

The day ended with a tour of [LVPEI](#), a world-renowned institute that has seen nearly 24m patients pass through its doors since it was established 30 years ago this year. More than half of LVPEI's services are provided free of charge regardless of complexity. Visual rehabilitation and its donor cornea eye bank are particular strengths, along with education and R&D.



Opportunities and options with presbyopia

Day two of the congress had a more practical emphasis and opened with a session on presbyopic lens fitting and teaching. IACLE Secretary **Professor Janice Jurkus** outlined the potential market in India, where around 35m people were aged 50 or over and the average age of a company CEO was 56 years.

Key questions to ask presbyopes were: how much time do you spend doing near, intermediate and distance tasks, and at what distance do you need to see best? Determine whether contact lenses would be for everyday or for occasional wear and identify environmental

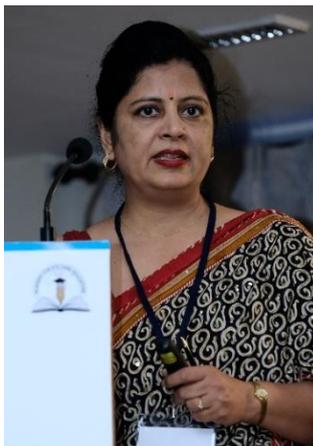
considerations, then set expectations by talking about ‘good functional vision’ and the possibility that supplementary glasses might be necessary. With presbyopes, psychology was as important as the contact lens fitting. ‘Promise less and deliver more,’ she advised.

Teaching presbyopic fitting involved lectures, labs where students fit each other with low adds and practised binocular refraction techniques, and workshops with presbyopic patients that could be provided by manufacturers at ‘Lunch and learn’ events.

Professor Jurkus’s tips for soft multifocal success were:

- Select patients with 1D add or more
- Follow the fitting guide
- Ensure the lens centers well
- Use monocular plus acceptance test
- Evaluate NV using mobile phone
- Check VA binocularly first
- Make 6/7.5 (20/25) the bottom line
- Don’t make more than one lens change at the initial fitting
- Tell patient ‘You did a really good job’
- Ask them to call in 2-3 days’ for progress check

When fitting monovision, put lenses on and show the patient the vision before explaining the concept. A +1.50D difference was considered optimum since new presbyopes might have difficulty suppressing. Make the patient aware of the change in stereopsis and explain that adaptation is required. Leave the room with the test chart left on and return after 10 minutes to assess.



How to teach presbyopic fitting

Professor Monica Chaudhry set a pre-task exercise for her students prior to her lectures on presbyopic fitting. She asked them to conduct a search of the products available on the market and question their parents about their experiences of near vision. She also asked the students who had examined presbyopes whether they had discussed contact lenses.

After delivering her lecture, Professor Chaudhry ended the class with a task. In the following class she conducted a short assessment of what they had learnt from the lecture. Students were then split into groups for an interactive session.

Choosing the optimum presbyopic lens option was best taught using case studies. Each group presented a case analysis and the rest of the class commented critically. Communication skills could be taught using role plays of the same case studies. After workshops with presbyopic patients – volunteers, staff and parents – she provided each student with a feedback sheet.



Other ideas for evidence-based teaching were to give students a written case study and have them design a lens, describing the rationale for their choice. Alternatively, ask them to present a case then research an article that answers the clinical questions the case posed.

Many in the audience had their own suggestions for interactive teaching methods, from polling apps such as [Slido](#) to various methods of demonstrating simultaneous vision and simulating presbyopia in young students.



FIACLEs **Professor Prema Chande** and **Yeshwant Saoji** provided their tips as they performed live monovision and multifocal fittings on two volunteers. Professor Chande measured contrast sensitivity and warned patients they might experience blurred intermediate vision and glare when night driving for the first 4-5 days. Presbyopic fitting in India had its own particular challenges (long delivery times) and opportunities (Indian weddings!), said Mr Saoji, but cost was not an issue. Fees should be charged for multifocal trials.



Addressing specific patient needs

To end the session, **Jack Chan** Regional Director, Professional Affairs Manager for Johnson & Johnson Vision, described some of the company's charitable initiatives, such as the [Sight for Kids](#) program with Lions Clubs International that had screened 23m children in seven countries since 2002, and the [Charity Miles](#) app that helped fund that program.

Johnson & Johnson's product focus was on addressing the specific needs of contact lens wearers. There were four segments of predominant needs based on lifestyle and physiology: eyes with sensitivities, challenging environments, maximized wear and eye enhancement. The company's portfolio of Eye-Inspired Designs was tailored to meet these different needs. Be more personalized, be more profitable and be more efficient, he advised.

Establishing contact lens growth in schools



The final session was devoted to group exercises aimed at identifying the challenges and opportunities of teaching contact lenses and sharing ideas across the world. Delegates took an active part in the session that generated many ideas for IACLE to take forward.

Professor Janice Jurkus and **Dr Ithar Beshwar** described how contact lenses were taught in their respective institutions, in the US ([Illinois](#)) and Palestine ([An Najah](#)), and proposed two topics for group discussion:

- How research in contact lenses in IACLE members' institutions could improve teaching and enhance students' understanding of the topic
- The need for well equipped contact lens labs and clinics at universities for students to practise, and the related obstacles

The discussion generated a long list of suggestions for encouraging contact lens growth that would benefit educators and their institutions. Conducting clinical research would drive patients into their clinics. Holding a contact lens awareness day or week would raise the profile of their departments within their schools. And cooperation between institutions and countries – whether for research projects or postgraduate study – would help make students much more proactive in contact lenses.

While some challenges – such as recruiting enough patients and a lack of specialised equipment – were common to many countries, others reported poor access to stock lenses and the need for a full range of lens options in their countries. Industry had a clear role to play in supporting educators in research, and also in their clinics and labs.

The final breakout session was a role-play exercise aimed at encouraging educators to develop strategies to enhance communication with students, and students with patients. The emphasis was on upgrading to designs and materials that met patients’ changing needs to help prevent dropout.



Invaluable opportunity

Closing the congress, Dr Naroo said key learnings were that educators needed to ensure their students had good product knowledge and improved fitting, aftercare and communication skills.

Proactive recommendation, ‘getting lenses on eyes’ and addressing dropout were all essential if more people were to wear contact lenses and – importantly – keep wearing them.’

The IACLE Congress provided an invaluable opportunity for educators from around the world to get together and share their experiences. IACLE also acknowledged the achievements of its members with the presentation of the [IACLE Award for Lifetime Achievement in Contact Lens Education](#) to former President, **Professor Deborah Sweeney**, and the 2017 IACLE Asia-Pacific Contact Lens Educator of the Year Award to **Professor Koon-Ja Lee** from Eulji University, Korea.

