British Society for Refractive Surgery

BSRS Annual Conference 2026

Scientific Programme

London | 27–28 June 2026

“Exploring Innovation, Collaboration & Clinical Excellence in Refractive Surgery”

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Our Council

Our council is made up of highly skilled professionals who give up their time in order to better the understanding of refractive surgery across ophthalmic professionals across the world.

Mayank Nanavaty
President

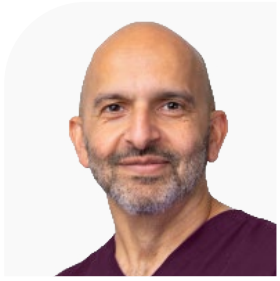
Clare O'Donnell
Vice-President

Valerie Saw
Immediate past president

James Ball
Co opted council member

Colm McAlinden
Treasurer

Allon Barsam



Saj Khan

Tahera Bhojani Lynch

Hasan Naveed

Trusit Dave

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Mario Saldanha

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DMEK WET LAB MASTERCLASS BSRS 2026

Joint Operations is excited to host this year's hands on **DMEK Wet Lab Workshop** at the British Society for Refractive Surgery (BSRS). We invite all attending surgeons to join one of our engaging, practical sessions designed to advance skills in modern corneal tissue preparation for DMEK transplantation.

Featuring Special Guest — Nicholas Hicks, Eversight Vision

We are honoured to welcome our partners from **Eversight Vision**, one of the leading US eye banks in corneal innovation and education. **Nicholas Hicks**, Director of Tissue Processing at Eversight, will serve as our guest instructor. With more than a decade of clinical eye banking experience and **over 4,000 corneas prepared** for transplantation, Nick brings exceptional expertise in **DMEK preparation** and has contributed extensively to global sight restoration research. This session offers BSRS delegates a rare opportunity to learn directly from a world class specialist.

A High Impact, Hands On Experience

Surgeons attending the wet lab will have the opportunity to:

- Refine DMEK tissue handling and preparation techniques
- Engage directly with an expert instructor
- Explore the latest developments in tissue based innovation
- Gain practical insights that translate directly into clinical practice

We look forward to welcoming you at BSRS for an interactive, skills focused session showcasing the very best in corneal surgery training.

Wet Lab sessions will be made available throughout both days, please come along and book your session at the Joint Operations booth as early as possible on Saturday 27th June 2026.

Presidential Welcome

Mayank Nanavaty

President, British Society of Refractive Surgery

On behalf of Council, welcome to the 33rd Meeting of the British Society for Refractive Surgery!

Dear Colleagues, Friends, and Delegates,

It is my great privilege and honour to welcome you to the British Society of Refractive Surgery (BSRS) Annual Meeting 2026. Whether you are joining us for the first time or returning as a familiar face, I extend my warmest personal welcome to each and every one of you. This meeting represents not only the very best of British and international refractive surgery, but a testament to the enduring spirit of collaboration, innovation, and excellence that defines our specialty.

This year's programme has been thoughtfully assembled to reflect the full breadth of our field — from the evolving science of corneal and lens-based refractive surgery to the nuanced art of patient selection, outcome optimisation, and long-term care.

Over two rich days, delegates will have the opportunity to engage with world-leading experts across sessions that challenge convention, celebrate progress, and equip us all to deliver better outcomes for our patients.

Our scientific programme opens with the AECOS Session — “It’s Not Just About the Lens!”, exploring the complexities of modern lens surgery beyond the implant itself. The first day also features the Managing the Myopia Refractive Lifecycle session — a timely exploration of the full continuum of myopia care, from orthokeratology to RLE — alongside the eagerly anticipated Young Ophthalmologist Session, which continues to serve as an incubator for the next generation of talent in our Society.

The second day brings equal richness, with the International Keratoconus Society Session offering cutting-edge insights in scleral lenses, cross-linking, ectasia management, and emerging implant technologies. The EVER Symposium, co-moderated with Professor Clare O’Donnell, shines a spotlight on accommodative physiology, ocular surface reconstruction, and the exciting frontiers of artificial intelligence in refractive surgery.

The interactive “Which Treatment for This Patient?” and “What Would You Do?” Video Sessions offer the collegial, case-based engagement that many of you have rightly come to regard as highlights of the BSRS calendar.

No BSRS Annual Meeting would be complete without its prestigious Medal Lectures, and this year we are truly honoured. The BSRS UK Medal Lecture will be delivered by Professor Burkhard Dick, whose lecture — “Small Aperture: Optimising Vision, Accepting Limits” — promises to reframe our thinking on extended depth of focus. Later that same evening, we are privileged to host the Charles McGhee Medal Lecture, delivered by the incomparable Professor John Marshall, a towering figure whose contributions have helped shape laser vision correction as we know it today. On Sunday, the BSRS London Medal Lecture will be presented by Professor George Kymionis, addressing the technically demanding intersection of IOL Implantation Combined with Corneal Grafts.

I wish to express my sincere gratitude to our faculty, session moderators, industry sponsors, Society committee members, and the dedicated administrative team whose tireless efforts make this meeting possible. To our trainee delegates competing for the ePoster and Video Prizes: your energy and curiosity are the future of BSRS.

I hope these two days leave you inspired, better informed, and reconnected with the community that makes refractive surgery such a rewarding discipline to practise.

Mayank Nanavaty

President, British Society of Refractive Surgery

Programme of Events

Saturday 27th June 2026

08:00-08:30	Registration & Welcome	BSRS President Prof Mayank Nanavaty
08:30-10:00	**AECOS SESSION (It's not just about lens!!)**	**Moderators: Mr. Sheraz Daya & Mr. Saj Khan**
08:30-08:40	Introduction and plea for simplicity	Mr. Sheraz Daya
08:45-08:55	LAL - Light Adjustable Lenses – the holy grail?	Mr. Nizar Din
09:00-09:10	Evaluating lens / optical performance - Tools and Diagnostics	Mr. Kieren Darcy
09:15-09:25	Influence of neuroadaptation	Prof. Colm McAlinden
09:30-09:40	PROMS - the patient perspective	Ms. Pei Fei-Lin
09:45-09:50	When patient is unhappy	Dr. Basak Bostanci
10:00-10:30	**Coffee**	
10:30-11:45	**MANAGING THE MYOPIA REFRACTIVE LIFECYCLE**	**Moderators: Prof. Oliver Findl & Prof. Colm McAlinden**
10:30-10:40	OrthoK for myopia control and beyond	Prof. Hema Radhakrishnan
10:45-10:55	Limits of LASIK, Surface ablation and KLEX in myopia	Ms. Seema Anand
11:00-11:10	My ICL Journey	Mr. Alastair Stuart
11:15-11:30	RLE in myopia	Mr. Amir Hamid
11:30-11:40	ESCRS MyoPRED study	Prof. Oliver Findl
11:45-13:15	**YOUNG OPHTHALMOLOGIST SESSION**	**Moderators: Mr. Hasan Naveed & Mr.Tariq Ayoub**
11:45-11:55	Laser Platform fundamentals and differences	Mr. Prateek Agarwal
12:00-12:10	Lasik Flap complications prevention and management	Mr. Malcolm Samuel
12:15-12:25	Laser enhancement procedures & the timing	Mr. Darshak Patel
12:30- 12:40	Planning toric IOL for your patient	Ms. Laura Maubon
12:45-12:55	Premium IOLs nuances and Patient selection	Mr. Prateek Agarwal
13:00-14:30	**Lunch & AGM, Exhibition**	

14:30-15:15	**BSRS UK Medal Lecture** Small Aperture: Optimising Vision, Accepting Limits	**Prof. Burkhard Dick**
15:15-16:30	**OPTIMISING OUTCOMES IN SURFACE ABLATION**	**Moderators: A/Prof Valerie Saw & Ms. Laura de Benito-Llopis**
15:15-15:25	Corneal wound healing response to surface ablation	Dr. Miltos Balidis
15:30-15:40	MMC: What is the evidence on the toxicity of MMC?	Ms. Laura de Benito-Llopis
15:45-15:55	Surface ablation combined with crosslinking in keratoconic eyes	Prof. George Kymionis
16:00-16:10	TransPRK vs conventional PRK: is one-step ablation the new standard?	Mr. Sanjay Mantry
16:15-16:25	Long term stability after laser vision correction: surface vs. LASIK vs. KLEX	Mr. Allon Barsam
16:30-17:00	**Tea**	
17:00-17:45	**CHARLES McGHEE MEDAL LECTURE**	**Prof. John Marshall**
17:00-18:00	**OPTOMETRIST IP-PEER REVIEW SESSION**	**Dr Nabila Jones/Prof Clare O'Donnell**
19:00	**Conference Dinner and Entertainment**	

Sunday 28th June 2026

08:45-09:00	Registration	
09:00-10:00	**WHICH TREATMENT FOR THIS PATIENT?**	**Moderators: Prof Clare O'Donnell & Ms. Tahera Bhojani-Lynch**
	Interactive Case Discussion Session with Optometrists and Ophthalmologists	
	Ms. Alice Xu	
	Ms. Melissa Lloyd	
	Mr. David Cooper	
	Ms. Purvi Thomson	
10.00-11.00	**INTERNATIONAL KERATOCONUS SOCIETY SESSION**	**Moderators: Mr. Mario Saldanha & Mr. Samir Jivanjee**
10.00-10.10	Advances in Scleral lenses for KC	Mr. Samir Jivanjee
10.10-10:20	How to appraise outcomes of PRK in keratoconus	Prof. Mohamed Hosny
10:20-10:30	Xenia implants for advanced keratoconus: 18 months results	Prof. Mohamed Shafik
10:30-10:40	Crosslinking Plus Ray-tracing landscape for Ectasia and irregular Corneas	Prof. Cosimo Mazzotta
10:40-10:50	Cross-Linking (CXL) Complications: Prevention and Treatment	Dr Miltos Balidis
10.50-11.00	Q&A	
11:00-11:30	**Coffee**	
11:30-12:15	**EUROPEAN EYE & VISION RESEARCH SYMPOSIUM (EVER)**	**Moderators: Prof Mayank Nanavaty & Prof. Clare O'Donnell**
11:30-11:40	How accommodation works: update 2026.	Prof. Barbara Pierscionek
11:45-11:55	Ocular surface reconstruction	Dr. Ivanka Petric Vickovic
12:00-12:10	Artificial intelligence in refractive surgery	Prof. Andrzej Grzybowski

12:15-13:15	**INDUSTRY SPONSORED SESSION**	**Moderators: Hatch Mukherjee & Tariq Ayoub**
12:15-12:25	enVista Envy - sponsored by Bausch & Lomb	Prof. Colm McAlinden
12:25-12:35	Optimising the ocular Surface with Lacrifill before and after refractive surgery – real world insights - sponsored by Nordic Pharma	Mr Johnson Neo
12:35-12:45	Customised ocular rehabilitation: Strategies for Lens, Iris and Cornea - Sponsored by Kestrel	Mr Hatch Mukherjee
12:45:12.55	Real World Patient Outcomes with RayOne Galaxy Continuous Full Range of Focus, Spiral IOL - Sponsored by Rayner	Dr. Miltos Balidis
12.55-13.05	Tissue Addition Technology – Allotex Corneal Inlays - Sponsored by Joint Operations	Prof. Michael Mrochen
13:15-14:30	**Lunch and Exhibition**	
14:30-15:15	**BSRS LONDON MEDAL LECTURE**	**Prof. George Kymionis**
	IOL Implantation Combined with Corneal Grafts	
15:15-15:30	**Tea**	
15:30-16:45	**“WHAT WOULD YOU DO?” - VIDEO SESSION**	**Moderators: Saj Khan & Prateek Agarwal**
15:30-15:40	Case 1	Mr. Miltos Balidis
15:45-15:55	Case 2	Ms. Laura de Benito-Llopis
16:00-16:10	Case 3	Prof. Mayank Nanavaty
16:15-16:25	Case 4	Mr. Ali Mearza
16:45	**Trainee Prizes for Eposters/Videos kindly Sponsored by Bausch & Lomb + Meeting Close**	

Saturday
27 June 2026

AECOS Session (It's not just about lens!!)

Mr. Sheraz Daya

08:30 Introduction and plea for simplicity

Mr Sheraz Daya is the Medical Director of Centre for Sight, one of the UK's leading private ophthalmic centres. Formerly Director of the Corneoplastic Unit and Eye Bank at Queen Victoria Hospital, he transformed the service into a globally recognised hub for corneal surgery. Since 2011, he has focused solely on private practice and advancing ophthalmic innovation. A globally respected key opinion leader, Mr Daya has featured on The Ophthalmologist's Power List of the top 100 surgeons and is the founding Chief Medical Editor of Cataract and Refractive Surgery Today.

A pioneer in stem cell transplantation, lamellar techniques, and refractive surgery, he has authored over 100 peer-reviewed publications and delivered numerous prestigious international lectures. His contributions have earned him multiple accolades, including lifetime achievement awards from the AAO and ISRS. He currently serves as President of the American-European Congress of Ophthalmic Surgery (AECOS).

Mr. Nizar Din

08:45 LAL - Light Adjustable Lenses – the holy grail?

Mr Nizar Din is a Consultant in Cornea, Cataract and Refractive Surgery at Imperial College Healthcare NHS Trust. Following specialist fellowship training at Moorfields Eye Hospital and the University of Toronto, he has developed expertise in corneal transplantation, premium cataract surgery, and refractive procedures including LASIK, PRK, ICL surgery, and refractive lens exchange. An award-winning clinician, educator, and researcher, Mr Din regularly presents at national and international meetings and has published extensively in the field of cornea and refractive surgery.

Mr. Kieren Darcy

09:00 Evaluating lens / optical performance - Tools and Diagnostics

Kieren is a Consultant surgeon at Vision Care Clinic Bristol, specialising in Cornea and Refractive surgery.

Prof. Colm McAlinden

09:15 Influence of neuroadaptation

Professor Colm McAlinden is a Consultant Ophthalmic Surgeon based in South Wales and an Honorary Professor at Cardiff University. He specialises in cataract, cornea and refractive surgery. He completed his sub-specialist training at the world-renowned Queen Victoria Hospital in East Grinstead and holds a specialist certificate in laser and refractive surgery from the Royal College of Ophthalmologists, alongside being a Fellow of the World College of Refractive Surgery and Visual Sciences. He earned a PGCert in Medical Education from the University of Cambridge and actively supervises the next generation of eye surgeons and PhD students. Professor McAlinden is internationally recognised for his academic contributions, boasting an H-index of 72 with over 195 peer-reviewed publications. He also serves on the editorial boards of seven peer-reviewed journals and is the current Treasurer of the British Society for Refractive Surgery (BSRS).

Ms. Pei Fei-Lin

09:30 PROMS - the patient perspective

Miss Pei-Fen Lin is a Consultant Ophthalmic Surgeon at Centre for Sight and Moorfields Eye Hospital, London, where she also serves as Clinical Director of Digital Innovation. A graduate of the University of Cambridge and King's College London, she completed her postgraduate ophthalmic training in London and leads emergency eye care, cataract, and general ophthalmology services at Moorfields Eye Centre, Croydon.

Her interests include digital health, service redesign, value-based care, and the integration of patient-reported outcome measures (PROMs) into clinical practice. She has led award-nominated service transformation projects and continues to drive innovation in ophthalmic care through her leadership of the Moorfields Launchpad programme.

Managing The Myopia Refractive Lifecycle

Prof. Hema Radhakrishnan

10:30 OrthoK for myopia control and beyond

Professor Hema Radhakrishnan is Professor of Vision Sciences at The University of Manchester, where she leads research in physiological optics with a focus on myopia, accommodation, and peripheral refractive error. Her work spans both fundamental and clinical research, including the development and evaluation of myopia control interventions such as orthokeratology, contact lenses, and novel spectacle lens technologies.

She has published extensively in leading ophthalmic and optometric journals and has received numerous awards for her contributions to research, education, and global engagement, including the Neil Charman Medal and the Bernard Gilmartin OPO Award. Professor Radhakrishnan is recognised internationally for advancing understanding of myopia development and control, helping to bridge research and clinical practice in refractive error management.

Ms. Seema Anand

10:45 Limits of LASIK, Surface ablation and KLEX in myopia

Seema Anand is a Consultant Ophthalmologist at Leeds Teaching Hospitals NHS Trust, where she serves as Lead Clinician for Ophthalmology. She specialises in complex corneal and external eye disease, cataract and refractive surgery. Her practice includes tertiary referral care for advanced corneal pathology and therapeutic laser treatments, alongside private laser and lens-based refractive surgery. Her principal interests include keratoconus and complex corneal transplantation.

Mr. Alastair Stuart

11:00 My ICL Journey

Mr Alastair Stuart graduated from the University of Nottingham before completing his ophthalmology training in London, including a Corneal Fellowship at Moorfields Eye Hospital. He subsequently undertook specialist fellowship training in refractive surgery under Professor Dan Reinstein at London Vision Clinic, where he remained for a further four years before joining Optegra. In January 2025, he was appointed Medical Director of Optegra UK.

A recognised key opinion leader for Carl Zeiss Meditec, Rayner, and Bausch & Lomb, Mr Stuart has delivered presentations at numerous international meetings. He has extensive experience in laser vision correction and lens-based surgery, having performed more than 5,000 laser eye procedures, including over 1,000 SMILE treatments, and more than 10,000 cataract and refractive lens procedures.

11:15 RLE in myopia

Mr Amir Hamid is a leading refractive surgeon having completed over 10,000 cataract and laser procedures to date, including more than 1,500 SMILE surgeries. He brings exceptional expertise in laser vision correction, refractive lens exchange, and premium intraocular lens implantation.

As Optegra Group's Chief Medical Officer, he oversees clinical governance and research. Certified by the Royal College of Ophthalmologists in Laser Refractive Surgery, Mr Hamid is internationally recognised for his work in surgical innovation, teaching, and clinical research, and regularly presents at major ophthalmology conferences worldwide.

Mr. Amir Hamid

Prof. Oliver Findl

11:30 ESCRS MyoPRED study

Professor Oliver Findl is Chair of the Department of Ophthalmology at Hanusch Hospital, Vienna, and Founder and Head of the Vienna Institute for Research in Ocular Surgery (VIROS). Following a research fellowship at Boston Children's Hospital, he completed his ophthalmology training and anterior segment surgery fellowship at the Medical University of Vienna before serving as a Consultant Ophthalmic Surgeon at Moorfields Eye Hospital, London.

His research interests include optical biometry, presbyopia-correcting intraocular lenses, posterior capsule opacification, myopia, and intra-operative OCT in vitreoretinal surgery. Professor Findl has authored more than 400 peer-reviewed publications, cited over 25,000 times, with an h-index of 87. He served as President of the European Society of Cataract and Refractive Surgeons (ESCRS) from 2022–2023 and is Treasurer of the Austrian Ophthalmological Society.

Young Ophthalmologist Session

Mr. Prateek Agarwal

11:45 Laser Platform fundamentals and differences

Mr Prateek Agarwal is a Consultant Ophthalmologist specialising in cataract, corneal, and refractive surgery. He completed advanced fellowship training in cornea, external eye disease, cataract, and refractive surgery, and has extensive experience in laser vision correction, premium intraocular lenses, and complex anterior segment surgery.

Alongside his clinical practice, Mr Agarwal is actively involved in research, education, and training, with a particular interest in refractive outcomes, corneal disease, and innovations in cataract surgery. He is a member of the BSRS Council and regularly contributes to national and international meetings in ophthalmology.

Mr. Malcolm Samuel

12:00 Lasik Flap complications prevention and management

Mr Samuel is a well known Refractive surgeon in the UK. He is the past Medical Director of Optimax. He is currently the Director of Laser Refractive Surgery at Optimax where he trains new consultants who join Optimax to perform Laser Refractive surgery. He is the co-author of the first MCQ book for Refractive surgery examinations and is a frequent speaker at various national and international refractive surgery conferences.

Mr. Darshak Patel

12:15 Laser enhancement procedures & the timing

Mr Darshak Patel graduated from University College London before completing ophthalmic specialist training in London, including corneal fellowships at both the Western Eye Hospital and Moorfields Eye Hospital. He subsequently undertook a specialist fellowship in refractive surgery at London Vision Clinic, where he is now a Cataract and Refractive Surgeon.

As Lead Lens Surgeon, Mr Patel performs cataract and refractive lens exchange surgery, with particular expertise in post-laser vision correction cases. His practice encompasses the full range of refractive procedures, including SMILE, PRK, LASIK, laser blended vision, and implantable collamer lens (ICL) surgery.

Ms. Laura Maubon

12:30 Planning toric IOL for your patient

Miss Laura Maubon FRCOphth is a Consultant Ophthalmologist specialising in anterior segment surgery, corneal and external eye disease, and surgical education. She is a Consultant Cataract Surgeon at SpaMedica and a part-time Cornea and Cataract Consultant at Queen's Hospital, Romford.

Following ophthalmic specialty training in London, she completed fellowships in cornea, external eye disease, and medical education at Moorfields Eye Hospital. She remains actively involved in ophthalmic education, research, and leadership, serving as International Co-Chair of the ESCRS Young Ophthalmologists Programme and contributing to both the ESCRS Programme Committee and EDI BOSS Committee.

Alongside her clinical practice, Miss Maubon is passionate about training the next generation of ophthalmologists and advancing excellence in cataract and corneal surgery.

Mr. Prateek Agarwal

12:45 Premium IOLs nuances and Patient selection

Premium intraocular lenses (IOLs) have transformed cataract surgery into a refractive procedure, but successful outcomes depend as much on patient selection as on technology. Trifocal, spiral optic, and extended depth-of-focus (EDOF) IOLs each offer distinct benefits and visual trade-offs.

Achieving optimal outcomes requires careful alignment of optical performance with individual patient characteristics and expectations. Even subtle ocular surface disease, irregular corneal optics, or early macular pathology can significantly affect visual outcomes and patient satisfaction.

This presentation explores the key considerations in premium IOL selection, including preoperative assessment, ocular surface optimisation, corneal topography, and patient counselling. Particular emphasis will be placed on managing expectations, understanding neuroadaptation, and recognising when restraint may be more appropriate than intervention.

As technology continues to evolve, thoughtful patient selection remains the cornerstone of successful premium IOL practice and consistently superior refractive outcomes.

BSRS UK Medal Lecture

Prof. Burkhard Dick

14:30 Small Aperture: Optimising Vision, Accepting Limits

Professor H. Burkhard Dick is Director of the University Eye Hospital Bochum and Head of the Center for Vision Science in Germany. His clinical and research interests focus on cataract, glaucoma, and refractive surgery.

Professor Dick is an active member of numerous national and international ophthalmic societies, including the ESCRS, ASCRS, AAO, ARVO, and ISRS. He has contributed extensively to clinical research, participating in more than 60 clinical trials, and has authored numerous scientific publications in the fields of cataract, glaucoma, and refractive surgery.

Optimising Outcomes In Surface Ablation

Dr. Miltos Balidis

15:15 Corneal wound healing response to surface ablation

Dr Miltos Balidis, MD, PhD, FEBOphth, is a Consultant Ophthalmologist specialising in cornea, refractive, and cataract surgery. Following ophthalmology training in London, he completed a two-year cornea fellowship at Moorfields Eye Hospital and has held senior academic and clinical leadership positions in Greece.

He is Co-founder and Director of Ophthalmica Eye Institute in Thessaloniki and serves as Vice President of the International Keratoconus Society and a member of the ESCRS Programme Committee. His previous leadership roles include President of the Hellenic Society of Intraocular Implants and Refractive Surgery and President of the South East Europe Cataract and Refractive Society.

Dr Balidis has authored more than 40 peer-reviewed publications and has been an invited speaker at major international meetings including AAO, ESCRS, ASCRS, and ISRS. In recognition of his contributions to ophthalmology, he received the American Academy of Ophthalmology Achievement Award in 2014.

Ms. Laura de Benito-Llopis

15:30 MMC: What is the evidence on the toxicity of MMC?

Miss Laura de Benito-Llopis is a Consultant Ophthalmologist in the Cornea and External Disease Department at Moorfields Eye Hospital, London. She specialises in the diagnosis and management of corneal and external eye diseases and contributes to clinical care, education, and research within one of the UK's leading ophthalmic centres.

Prof. George Kymionis

15:30 Surface ablation combined with crosslinking in keratoconic eyes

Professor George Kymionis is Professor of Ophthalmology at the University of Athens, Director of the Master's Programme in Management of Refractive Errors and Refractive Surgery, and a Board Member of the European Society of Cataract and Refractive Surgeons (ESCRS). He is also Founder and Medical Director of the Athens Eye Bank, the first eye bank in Greece.

A former President of the European Society of Cornea and Ocular Disease Specialists (2020–2022), Professor Kymionis is internationally recognised for his contributions to corneal and refractive surgery, including the development of the CRETAN Protocol for keratoconus. He has authored more than 330 scientific publications, with over 12,000 citations, and continues to play a leading role in research, education, and innovation in ophthalmology.

Mr. Sanjay Mantry

16:00 TransPRK vs conventional PRK: is one-step ablation the new standard?

Mr Sanjay Mantry is a Consultant Ophthalmologist specialising in corneal, cataract, and refractive surgery. He is Medical Director and Co-Founder of Vision Scotland and serves as an Examiner for the Royal College of Ophthalmologists' Certificate in Laser Refractive Surgery (CertLRS).

Following ophthalmology training in the Midlands, he completed advanced fellowship training in corneal and refractive surgery in Birmingham and Nottingham. With more than 25 years of clinical experience, he has led corneal services within a tertiary teaching hospital in Scotland and has trained fellows in corneal and refractive surgery.

Mr Mantry has extensive experience in the management of corneal disease, complex cataract surgery, premium intraocular lenses, and laser vision correction, having provided refractive surgery for more than 20 years. He remains actively involved in education, research, and professional societies, and has previously served on the councils of both BSRS and UKISCRS.

Mr. Allon Barsam

16:15 Long term stability after laser vision correction: surface vs. LASIK vs. KLEX

Allon Barsam MA (Hons) Cantab MB BS FRCOphth FWCRS Examiner Cert LRS is a director and founding partner of OCL Vision. He is an elected council member for both the UKISCRS and the BSRS. He has been a Consultant since 2012 specialising in laser refractive surgery, cataract surgery with advanced technology lenses and corneal surgery. He has published over 45 peer-reviewed scientific papers, 16 book chapters and he is the co-author of a comprehensive textbook of Ophthalmology, which is now in its third edition. He is a key opinion leader for the Ophthalmic Industry and is regularly invited to chair events and lecture both nationally and internationally. Allon was the first surgeon in the UK and one of the first in the world to carry out Smartsight KLex laser vision correction.

Charles Mcghee Medal Lecture

Prof. John Marshall

Professor John Marshall MBE is Frost Professor of Ophthalmology at the Institute of Ophthalmology, University College London, and Emeritus Professor of Ophthalmology at King's College London. Internationally recognised for his pioneering contributions to ophthalmic research and innovation, his work has focused on retinal disease, ageing, and the development of laser technologies for ophthalmic diagnosis and treatment.

Professor Marshall invented and patented the excimer laser for the correction of refractive disorders, a breakthrough that has transformed vision correction worldwide. He has authored more than 500 scientific publications, supervised over 60 doctoral students, and delivered more than 50 eponymous lectures. In recognition of his contributions to ophthalmology, he was awarded an MBE in 2013.

Optometrist IP Peer Review Session

Dr Nabila Jones

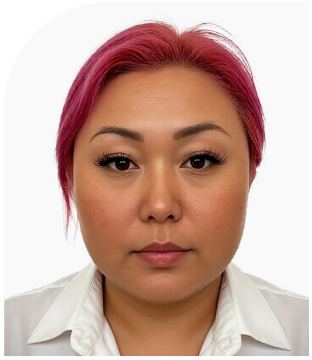
Dr Nabila Jones is a specialist optometrist, researcher, and data scientist with over a decade of experience across clinical practice, academia, and healthcare analytics. As an Eye Sciences Associate at Optegra, she delivers data-driven insights, supports research, and supervises a KTP machine learning project. She holds a PhD in Optometry, an Independent Prescribing Diploma, a Fellowship of the Higher Education Academy, and a postgraduate qualification in Data Science. Dr Jones serves on the Clinical Management Guidelines Review Group at the College of Optometrists and has published widely in optometry and ophthalmology.

Prof Clare O'Donnell is Head of Eye Sciences at Optegra and a Reader at Aston University, with an honorary professorship in Optometry at The University of Manchester. Her clinical and research interests encompass refractive and cataract surgery, intraocular lenses, corneal laser vision correction, ocular surface disease, and the anterior ocular manifestations of systemic disease. Prof O'Donnell has served as Principal Investigator on numerous collaborative research projects, she has supervised multiple postgraduate research projects and PhD students. An internationally recognised speaker, Prof O'Donnell has delivered invited lectures throughout Europe and North America. She has authored more than 80 peer-reviewed scientific papers and educational articles, as well as five book chapters, and continues to lead research aimed at improving outcomes for patients undergoing vision correction and cataract surgery.

Prof Clare O'Donnell

Sunday
28 June 2026

Which Treatment For This Patient?



Ms. Alice Xu

09:00 Interactive Case Discussion Session with Optometrists and Ophthalmologists

Alice Xu is a Refractive Optometrist at Optimax, where she has been a key member of the clinical team since 2018. A graduate of Glasgow Caledonian University, she developed a strong foundation in primary care optometry before moving into specialist hospital and refractive practice.

Alongside her clinical work, Alice is an active educator and speaker for NHS Education for Scotland (NES), supporting the professional development of eye care practitioners. She is recognised for her expertise in refractive surgery care, clinical excellence, and commitment to delivering outstanding patient outcomes.

Ms. Purvi Thomson

Purvi Thomson is Head of Optometry at OCL Vision and a specialist optometrist with over 20 years of clinical experience. Since qualifying in 2004, she has worked across community, hospital, and specialist optometry, developing particular expertise in vision correction and refractive care.

An Independent Prescriber since 2020, Purvi has a special interest in ocular surface disease and established the Dry Eye Clinic at OCL Vision. Alongside her clinical practice, she is an active educator and speaker, representing the College of Optometrists on the Royal College of Ophthalmologists' Refractive Surgery Advisory Board and championing collaboration between optometry and ophthalmology.

Mr. David Cooper

David Cooper is an Independent Prescribing Refractive Optometrist at Optical Express, Glasgow, specialising in refractive and lens-based surgery. His interests include intraocular lens (IOL) selection, post-refractive cataract planning, and the management of complex refractive cases. He is currently undertaking advanced postgraduate training in glaucoma, cataract, and refractive surgery, and is passionate about education, professional development, and improving patient outcomes.

Melissa Lloyd is an Independent Prescribing Optometrist at OCL Vision with over 25 years of clinical experience. Specialising in refractive optometry since 2010, she works closely with ophthalmologists to support patients undergoing laser vision correction and lens-based procedures, with a particular focus on post-refractive care, visual quality, and patient outcomes.

Alongside her refractive practice, Melissa has extensive hospital experience and works within an eye casualty service managing acute eye conditions. She is passionate about patient education and collaborative care, helping to strengthen links between optometry and ophthalmology to improve patient outcomes.

Ms. Melissa Lloyd

International Keratoconus Society Session

Mr. Samir Jivanjee.

10:00 Advances in Scleral lenses for KC

Samir qualified as an optometrist in 2007 and began his career with Boots, where he worked until 2014. He then moved into independent practice, where he further developed his clinical expertise and completed the Professional Certificate in Medical Retina. In 2020, Samir took on the role of Lead Optometrist at Western Eye Hospital, gaining extensive experience across a range of specialist services including glaucoma, contact lenses, uveitis, and cornea. During this time, he also completed the Diploma in Glaucoma, Advanced Medical Contact Lenses Cetificate and became a Fellow of the British Contact Lens Association (FBCLA). Alongside his hospital role, Samir established a private contact lens clinic in 2022, reflecting his passion for advanced and specialist lens practice. In May 2025, he went on to acquire another high street practice, where he continues to deliver high-quality, patient-centred care. Samir is an experienced and engaging speaker who regularly delivers continuing professional development (CPD) sessions for optometrists, dispensing opticians, and contact lens opticians through Local Optical Committees and hospital-based education programmes. In addition he delivers Friday morning teaching sessions for the NW London Ophthalmology Junior Doctors.

Prof. Mohamed Hosny

10:10 How to appraise outcomes of PRK in keratoconus

Professor Mohamed Hosny is Professor of Ophthalmology at Cairo University and Lead Refractive and Cornea Consultant at Dar El Oyoun Specialised Eye Hospitals, Egypt. He has extensive experience in corneal and refractive surgery and is actively involved in clinical practice, education, and research in the field of ophthalmology.

Prof. Mohamed Shafik

10:20 Xenia implants for advanced keratoconus: 18 months results

Professor Mohamed Shafik Shaheen is Professor and Head of the Department of Ophthalmology at Alexandria University, Egypt, and Founder and CEO of Horus Vision Correction Center. He serves as Vice President of the Egyptian Society of Ophthalmology, Vice President and Co-Founder of the International Society of Keratoconus, and a TFOS Global Ambassador.

An internationally recognised leader in corneal, refractive, and ocular surface disease, Professor Shaheen has held numerous leadership roles within ophthalmic societies and has received multiple honours for his contributions to refractive surgery. He has authored more than 60 scientific publications and book chapters and continues to play an active role in advancing research, education, and clinical innovation in ophthalmology.

10:30 Crosslinking Plus Ray-tracing landscape for Ectasia and irregular Corneas

Professor Cosimo Giuseppe Mezzotta is Associate Professor of Ophthalmology at the University of Siena, Italy. He is internationally recognised for his expertise in corneal cross-linking, keratoconus, and refractive surgery, and has contributed extensively to the development and advancement of corneal treatment techniques. His clinical and research interests focus on corneal ectatic disorders, refractive surgery, and innovative approaches to corneal rehabilitation.

Prof. Cosimo Mezzotta

Dr Miltos Balidis

10:40 Cross-Linking (CXL) Complications: Prevention and Treatment

Dr Miltos Balidis is a Consultant Ophthalmologist specialising in cornea, refractive, and cataract surgery. Following ophthalmology training in London, he completed a fellowship in cornea and refractive surgery at Moorfields Eye Hospital and has held senior clinical and academic positions in Greece, including at the Aristotle University of Thessaloniki and the Interbalkan Medical Centre.

He is Co-founder and Director of Ophthalmica Eye Institute, Vice President of the International Keratoconus Society, and a member of the ESCRS Programme Committee. A former President of both the Hellenic Society of Intraocular Implants and Refractive Surgery and the South East Europe Cataract and Refractive Society, Dr Balidis has authored more than 40 peer-reviewed publications and is a frequent invited speaker at major international meetings including AAO, ESCRS, ASCRS, and ISRS. In recognition of his contributions to ophthalmology, he received the American Academy of Ophthalmology Achievement Award in 2014.

European Eye & Vision Research Symposium (EVER)

Prof. Barbara Pierscionek

11:30 How accommodation works: update 2026

Professor Barbara Pierscionek is an internationally recognised researcher whose work focuses on the optics, biomechanics, and ageing of the anterior eye. Following a PhD at the University of Melbourne, she has led research programmes in Australia and the UK, securing funding from major organisations including the European Union, Fight for Sight, the Royal Society, and industry partners. Her research spans ocular optics, accommodation, cataract development, and emerging technologies in eye care. Professor Pierscionek has published more than 200 peer-reviewed papers and serves as an ethics expert for the European Commission.

Accommodation enables the eye to change focus from distance to near vision and has traditionally been explained by the Helmholtz theory. However, alternative models, including the Schachar theory, have gained increasing attention as advances in imaging, modelling, and ocular biomechanics have provided new insights into the accommodative process. This presentation reviews the principal theories of accommodation, examines the evidence supporting each, and explores the key questions that remain unresolved in our understanding of how accommodation works.

Dr. Ivanka Petric Vickovic

11:45 Ocular surface reconstruction

Limbal stem cell deficiency (LSCD) is a sight-threatening condition that results from the loss of limbal epithelial stem cells, most commonly following chemical or thermal injury, but also in association with autoimmune disease and congenital disorders. The condition compromises corneal epithelial regeneration and can lead to significant ocular surface instability.

This presentation reviews the principles of ocular surface reconstruction, including the role of limbal stem cell transplantation and the factors influencing surgical decision-making. Both autologous and allogeneic approaches will be discussed, together with the importance of addressing associated ocular and systemic disease to achieve long-term success.

Prof. Andrzej Grzybowski

12:00 Artificial intelligence in refractive surgery

Professor Andrzej Grzybowski is Professor of Ophthalmology at the University of Warmia and Mazury, Poland, and Head of the Institute for Research in Ophthalmology, Foundation for Ophthalmology Development in Poznan. A recognised leader in ophthalmic research, he is Past President of EVER, Treasurer of the European Academy of Ophthalmology, a member of the ISRS International Council, and Founder of the AI in Ophthalmology Society.

An internationally acclaimed researcher, Professor Grzybowski has authored more than 800 peer-reviewed publications and over 50 book chapters. His work spans cataract surgery, refractive surgery, and artificial intelligence in ophthalmology, earning numerous international honours and recognition among the world's most influential ophthalmic researchers.

Industry Sponsored Session

Prof. Colm McAlinden

12:15 enVista Envy - sponsored by Bausch & Lomb

Professor Colm McAlinden is a Consultant Ophthalmic Surgeon based in South Wales and an Honorary Professor at Cardiff University. He specialises in cataract, cornea and refractive surgery. He completed his sub-specialist training at the world-renowned Queen Victoria Hospital in East Grinstead and holds a specialist certificate in laser and refractive surgery from the Royal College of Ophthalmologists, alongside being a Fellow of the World College of Refractive Surgery and Visual Sciences. He earned a PGCert in Medical Education from the University of Cambridge and actively supervises the next generation of eye surgeons and PhD students. Professor McAlinden is internationally recognised for his academic contributions, boasting an H-index of 72 with over 195 peer-reviewed publications. He also serves on the editorial boards of seven peer-reviewed journals and is the current Treasurer of the British Society for Refractive Surgery (BSRS)

BAUSCH + LOMB

Mr Johnson Neo

12:25 Optimising the ocular Surface with Lacrifill before and after refractive surgery – real world insights - sponsored by Nordic Pharma

Mr Johnson Neo is an award-winning Consultant Ophthalmic Surgeon specialising in cornea, cataract, and refractive surgery. Triple board-certified, he holds consultant appointments at Barts Health NHS Trust and Moorfields Eye Hospital, alongside his private practice at Clinica London, Harley Street.

Recognised for his contributions to clinical practice, research, education, and leadership, Mr Neo has received more than 30 professional awards throughout his career and is widely respected for his expertise in anterior segment and refractive surgery.

NORDIC PHARMA

Mr Hatch Mukherjee

12:35 Customised ocular rehabilitation: Strategies for Lens, Iris and Cornea - Sponsored by Kestrel

Mr Hatch Mukherjee is a prize-winning Consultant Ophthalmologist and Clinical Lead at Colchester Eye Centre, ESNEFT. He is one of only a handful of surgeons internationally to have completed three post-CCT fellowships in Cornea (Cambridge & Wales), Glaucoma (King's College Hospital), and Laser Eye Surgery & Keratoconus (Greece). An innovator in ophthalmic surgery, Mr Mukherjee has developed several groundbreaking techniques with multiple UK and international firsts, including novel donor corneal crosslinking keratoplasty procedures and advanced femtosecond laser-assisted CAIRS His credentials include FRCOphth, CertLRS, and Elected Fellowship of the World College of Refractive Surgery (FWCRS). As an international surgical trainer, he brings cutting-edge innovation and comprehensive subspecialty expertise. He also runs a specialist refractive and corneal practice at TheVisionSurgeon.co.uk. Talk Summary - This presentation examines customised approaches to complex eyes, addressing the combined management of lens, iris and corneal pathology. Topics include custom intraocular lens selection, Humanoptics artificial iris implantation and visual rehabilitation of abnormal eyes.

Dr. Miltos Balidis

12:45 Real World Patient Outcomes with RayOne Galaxy Continuous Full Range of Focus, Spiral IOL -Sponsored by Rayner

Dr Miltos Balidis is a Consultant Ophthalmologist specialising in cornea, refractive, and cataract surgery. Following ophthalmology training in London, he completed a fellowship in cornea and refractive surgery at Moorfields Eye Hospital and has held senior clinical and academic positions in Greece, including at the Aristotle University of Thessaloniki and the Interbalkan Medical Centre.

He is Co-founder and Director of Ophthalmica Eye Institute, Vice President of the International Keratoconus Society, and a member of the ESCRS Programme Committee. A former President of both the Hellenic Society of Intraocular Implants and Refractive Surgery and the South East Europe Cataract and Refractive Society, Dr Balidis has authored more than 40 peer-reviewed publications and is a frequent invited speaker at major international meetings including AAO, ESCRS, ASCRS, and ISRS. In recognition of his contributions to ophthalmology, he received the American Academy of Ophthalmology Achievement Award in 2014.

Rayner

Prof. Michael Mrochen

12:55 Tissue Addition Technology – Allotex Corneal Inlays -Sponsored by Joint Operations

Professor Michael Mrochen is a physician-scientist, entrepreneur, and innovator with more than 25 years of experience in ophthalmology. He is CEO and Co-founder of Allotex, a company developing tissue-based solutions for presbyopia, and has played a pivotal role in the development of several breakthrough technologies, including corneal cross-linking and advanced laser vision correction systems.

Alongside his leadership in medical technology, Professor Mrochen serves as a board member and advisor to a number of ophthalmic and healthcare companies, supporting clinical innovation, product development, and global commercialisation. His work continues to bridge scientific research with real-world clinical impact.

JOINT OPERATIONS

BSRS London Medal Lecture

Prof. George Kymionis

IOL Implantation Combined with Corneal Grafts

Professor George Kymionis is Professor of Ophthalmology at the University of Athens, Director of the Master's Programme in Management of Refractive Errors and Refractive Surgery, and a Board Member of the European Society of Cataract and Refractive Surgeons (ESCRS). He is also Founder and Medical Director of the Athens Eye Bank, the first eye bank in Greece.

A former President of the European Society of Cornea and Ocular Disease Specialists (2020–2022), Professor Kymionis is internationally recognised for his contributions to corneal and refractive surgery, including the development of the CRETAN Protocol for keratoconus. He has authored more than 330 scientific publications, with over 12,000 citations, and continues to play a leading role in research, education, and innovation in ophthalmology.

“What Would You Do?” – Video Session

Mr. Miltos Balidis

15:30 Case 1

Dr Miltos Balidis is a Consultant Ophthalmologist specialising in cornea, refractive, and cataract surgery. Following ophthalmology training in London, he completed a fellowship at Moorfields Eye Hospital and has held senior clinical and academic positions in Greece. He is Co-founder and Director of Ophthalmica Eye Institute, Vice President of the International Keratoconus Society, and a member of the ESCRS Programme Committee.

A former President of both the Hellenic Society of Intraocular Implants and Refractive Surgery and the South East Europe Cataract and Refractive Society, he has authored more than 40 peer-reviewed publications and is a frequent invited speaker at major international ophthalmic meetings.

Ms. Laura de Benito-Llopis

15:45 Case 2

Miss Laura de Benito-Llopis is a Consultant Ophthalmologist in the Cornea and External Disease Department at Moorfields Eye Hospital, London.

Prof. Mayank Nanavaty

16:00 Case 3

Professor Mayank Nanavaty is a Consultant Ophthalmic Surgeon at University Hospitals Sussex NHS Foundation Trust, where he leads the cataract, corneal cross-linking, contact lens, and research services. He is also an Honorary Professor at Brighton and Sussex Medical School and President of the British Society for Refractive Surgery (BSRS). Specialising in cornea, cataract, and refractive surgery, Professor Nanavaty is internationally recognised for his contributions to clinical research, education, and professional leadership. He has published extensively in peer-reviewed literature, delivered more than 300 national and international presentations, and serves on several national and international committees, including the ESCRS and the Royal College of Ophthalmologists.

Mr. Ali Mearza

16:15 Case 4

Mr Ali Mearza is a Consultant Ophthalmic Surgeon specialising in cataract, corneal, and refractive surgery, and is Director and Co-Founder of OCL Vision. Following ophthalmic training in London, he completed fellowships in cornea and external eye disease at Moorfields Eye Hospital and laser refractive surgery at the Emmetropia Mediterranean Eye Institute in Crete.

Formerly Clinical Director of Ophthalmology at Imperial College Healthcare NHS Trust, Mr Mearza has led major service innovations and is an internationally recognised educator and speaker. He has authored more than 40 peer-reviewed publications and is actively involved in charitable ophthalmic work across Asia and Africa.

16:45 Trainee Prizes for Eposters/Videos & Meeting Close

Join us as we recognise outstanding trainee contributions through the BSRS ePoster and Video Prize presentations before bringing BSRS 2026 to a close.

Trainee ePoster Abstracts

Showcasing accepted research and clinical submissions presented at BSRS 2026.

A Prospective Study on Pseudophakic Mini-Mono Vision Using Monofocal Intraocular Lens

Author Issac Levy

Institution Sussex Eye Hospital, University Hospitals Sussex NHS Foundation Trust, Brighton

Category Cataract Surgery

Purpose

To assess binocular spectacle independence for distance and intermediate vision and functionality of intermediate vision performance by reading speed after bilateral cataract surgery with mini-monovision (0.75 D difference).

Setting

Sussex Eye Hospital, University Hospitals Sussex NHS Foundation Trust, Brighton.

Methods

A prospective, non-randomised, single-arm cohort study on visual and optical outcomes after mini-monovision surgery, using Clareon monofocal intraocular lens (Alcon laboratories, USA). All patients underwent immediate sequential bilateral cataract surgery. The dominant eye was aimed for distance emmetropia, and the other eye for -0.75D. Patients were followed up at 1-month and 3-month. The primary outcome was binocular uncorrected intermediate visual acuity (UIVA). Secondary outcomes included monocular & binocular uncorrected (UDVA), best corrected distance visual acuity (BCDVA) at 4 meters and monocular UIVA. The tertiary outcomes were binocular target-corrected defocus curve (+1 to -2.50D in 0.50D steps), binocular target-corrected reading speed with Salzburg reading desk at 66cm and Catquest 9SF questionnaire preoperatively vs. postoperatively.

Results

Twenty-seven patients were included. The primary outcome, binocular UIVA, at three-months was 0.1 ±0.13 LogMAR. Secondary outcomes included binocular and monocular UCDVA, which were -0.01 ±0.09 and 0.03 ±0.13 LogMAR at 1 month and -0.04 ±0.10 and 0.04 ±0.10 LogMAR at 3 months, respectively. Binocular CDVA was 0.05 ±0.09 and -0.05 ±0.04 LogMAR at 1 and 3 months respectively. In the tertiary outcomes, the binocular defocus curve showed visual acuity of 0.1 LogMAR or better between -1.5 D and +0.5 D, Binocular uncorrected reading speed with Salzburg reading desk at 66 cm was 105 ±31.79 words per minute with 0.1 ±0.13 LogMAR. Analysis of the Catquest 9SF questionnaire using Rasch weighted scores found a statistically significant higher score postoperatively at 1 and 3 months, compared to the pre-op questionnaire ($p<0.01$).

Conclusions

In conclusion, immediate sequential bilateral cataract surgery with mini-monovision technique using Clareon® monofocal IOLs (-0.75 D offset) demonstrated favorable visual and functional outcomes. At three months, patients achieved excellent binocular intermediate and distance visual acuity. The defocus curve confirmed a broad range of functional vision together with good reading performance. Patient-reported outcomes reflected high satisfaction, as indicated by the Catquest 9SF scores. These findings highlight the effectiveness of this approach in providing excellent functional vision, ranging from distance to intermediate, and patient satisfaction.

Comparing Binocular Defocus Curves with Monofocal, Monofocal with Mini-Monovision Versus Enhanced Monofocal Lenses

Author Issac Levy

Institution Sussex Eye Hospital

Category Cataract Surgery

Purpose

To compare binocular defocus curve performance following three intraocular lens (IOL) strategies for presbyopia correction: bilateral standard monofocal IOLs with emmetropia targeting, bilateral enhanced monofocal IOLs with emmetropia targeting, and bilateral standard monofocal IOLs with mini-monovision (-0.75D in the non-dominant eye)

Methods

This retrospective comparative study analyzed prospectively collected data from 76 patients (152 eyes) divided into three groups: standard monofocal (n=25), enhanced monofocal (n=25), and mini-monovision (n=26). All patients underwent immediate sequential bilateral cataract surgery at a single institution. Binocular defocus curves were measured at 3 months postoperatively using ETDRS charts with systematic spherical trial lens additions from +1.0D to -2.5D in 0.5D increments. Visual acuity was recorded as LogMAR at each defocus level. Comparisons between groups were performed using one-way ANOVA with Bonferroni-corrected post-hoc pairwise analysis (α=0.017).

Results

All three groups demonstrated equivalent binocular best-corrected distance visual acuity at 0.0D defocus (monofocal: -0.08±0.06; enhanced monofocal: -0.08±0.07; mini-monovision: -0.07±0.07 LogMAR; p=0.67). At intermediate defocus levels, both enhanced monofocal and mini-monovision groups achieved significantly superior performance compared to standard monofocal. At -1.0D defocus, monofocal yielded 0.11±0.09 LogMAR versus 0.00±0.08 LogMAR for enhanced monofocal and 0.04±0.08 LogMAR for mini-monovision ($p<0.01$). This superiority persisted through near ranges: at -1.5D, monofocal: 0.26±0.10 versus enhanced monofocal: 0.11±0.13 and mini-monovision: 0.12±0.14 LogMAR ($p<0.01$); at -2.5D, monofocal: 0.53±0.12 versus enhanced monofocal: 0.37±0.18 and mini-monovision: 0.42±0.18 LogMAR ($p<0.01$). Critically, enhanced monofocal and mini-monovision groups demonstrated statistically equivalent performance across all intermediate and near defocus levels ($p=0.60$-0.81). All surgeries were completed without intraoperative complications. Postoperative refractive accuracy was excellent across all groups, with 92%-95% of eyes achieving targets within ±0.50D.

Conclusions

Both enhanced monofocal IOLs and mini-monovision with standard monofocal IOLs provide significantly superior intermediate and near visual acuity compared to bilateral emmetropic standard monofocal IOLs, while maintaining equivalent distance vision. The comparable defocus curve performance between enhanced monofocal and mini-monovision strategies supports both as effective presbyopia-mitigation approaches, with selection dependent on individualized patient factors including cost, refractive symmetry preferences, and anisometropia tolerance.

Epithelial Thickness Changes After Descemet Membrane Endothelial Keratoplasty (DMEK): an observational study

Author Issac Levy

Institution Sussex Eye Hospital

Category Cornea

Background

To characterise corneal epithelial thickness profiles after Descemet membrane endothelial keratoplasty (DMEK) in eyes with Stage 2–3 Fuchs' endothelial dystrophy (FED) and to compare them with healthy controls, focusing on inferior–superior (I–S) epithelial thickness differences and their relationship with age. The hypothesis was that central epithelial thickness would normalise after DMEK, while the I–S gradient might remain accentuated due to postoperative epithelial remodelling.

Methods

This single-centre retrospective observational study included 36 post-DMEK eyes (Stage 2–3 FED) with at least 6 months' follow-up and 36 healthy control eyes, excluding eyes with intraoperative or postoperative complications or non-FED aetiologies of decompensation. High-resolution spectral-domain anterior segment OCT (Solix) maps were analysed for central epithelial thickness (E2.0) and peripheral sectors to derive inferior (E-I) and superior (E-S) values, with I–S difference computed at a 3-mm radius; group comparisons used t-tests and correlations used Pearson's r (α=0.05). Central corneal thickness (CCT) was also compared between groups as a secondary outcome.

Results

Post-DMEK eyes had significantly lower mean CCT than controls (525.7 ± 98.4 µm vs 544.71 ± 27.8 µm, p=0.04). Central epithelial thickness did not differ between groups (post-DMEK 53.7 ± 5.5 µm vs controls 52.7 ± 3.3 µm, p=0.62), but the I–S epithelial difference was greater after DMEK (5.9 ± 4.3 µm) than controls (3.0 ± 2.2 µm, p<0.01), indicating a more pronounced inferior thickening pattern. Age showed no significant relationship with epithelial thickness in controls, and only very weak or non-significant correlations with central thickness and I–S difference in post-DMEK eyes, indicating no clinically meaningful age effect postoperatively.

Conclusions

DMEK restores central epithelial thickness to values comparable to normal eyes, while accentuating the physiologic inferior–superior epithelial gradient, consistent with localised postoperative epithelial remodelling rather than global epithelial thickening or thinning. Corneal stromal remodelling may result in lower CCT post-DMEK versus controls, and age does not meaningfully influence epithelial distribution after surgery, informing expectations for postoperative epithelial mapping and optical quality couns

Optical Character Recognition-Based Biometry Scanner App for Easy and Efficient Biometry Calculations

Author Issac Levy

Institution Sussex Eye Hospital

Category Cataract Surgery

Purpose

To present the development, implementation, and validation of the Biometry Scanner mobile app, which uses optical character recognition (OCR) and artificial intelligence to automate intraocular lens (IOL) power calculation by transferring biometry data to the European Society of Cataract and Refractive Surgeons (ESCRS) IOL calculator.

Methods

This laboratory study involved developing the app using the Expo framework for cross-platform compatibility on iOS and Android devices. OCR and AI technologies were integrated to extract biometric data from printouts or screenshots of various biometry devices. Data privacy was maintained through HIPAA compliance. The app was distributed to 12 ophthalmologists, who used it in routine practice over a four-week period. Ease of use, accuracy, time savings, and user satisfaction were assessed using structured questionnaires and analysed descriptively.

Results

Eighty percent of participants used the app more than 11 times, collectively processing biometric data for 240 eyes. OCR accuracy achieved a mean score of 4.5 ± 0.67 and ease of use a mean score of 4.5 ± 0.8 on a 5-point Likert scale. The app reduced the time required for ESCRS calculator data entry, with a mean score of 4.42 ± 1.16, compared with manual entry at 4 ± 1.54. All users indicated they would recommend the app.

Conclusions

The Biometry Scanner app improves the efficiency and accuracy of IOL power calculation by automating biometric data transfer. Its compatibility with multiple biometry devices and compliance with data privacy requirements make it a valuable tool for modern cataract surgery.

Outcomes of Mini-Monovision with Monofocal, Enhanced Monofocal and Extended Depth-of-Focus Intraocular Lenses

Author Issac Levy

Institution Sussex Eye Hospital

Category Cataract Surgery

Purpose

Mini-monovision is a vision correction technique that allows for a broader spectrum of spectacle independence while minimising anisometropia. This narrative systematic review aimed to evaluate the clinical outcomes of pseudophakic mini-monovision with three types of intraocular lenses (IOLs): monofocal, enhanced monofocal, and extended depth-of-focus (EDOF).

Methods

A comprehensive literature search was conducted using PubMed and MEDLINE to identify studies reporting mini-monovision outcomes across the three IOL categories up to July 2024. Inclusion criteria included studies with more than 20 patients, target refraction to achieve mini-monovision in the fellow eye, and a minimum follow-up of three months. The primary outcome measure was uncorrected binocular intermediate visual acuity (UCIVA). Secondary outcomes included binocular uncorrected distance visual acuity (UCDVA), binocular uncorrected near visual acuity (UCNVA), patient-reported outcome measures (PROMs), spectacle independence, contrast sensitivity, photic phenomena, enhancement surgeries, and IOL exchange.

Results

A total of 113 studies were screened, of which 19 studies involving 1,530 patients met the inclusion criteria. Mean logMAR binocular UCIVA was 0.16 ± 0.01, 0.11 ± 0.06, and 0.08 ± 0.07 for the monofocal, enhanced monofocal, and EDOF groups respectively (p=0.41). Mean logMAR UCDVA was 0.08 ± 0.05, 0.04 ± 0.07, and 0.04 ± 0.04 respectively (p=0.36). Mean spectacle independence rates were 51% ± 22.1, 55% ± 35.4, and 63.4% ± 24.6 respectively (p=0.05). A comparable low incidence of halos and glare was observed with enhanced monofocal lenses, while EDOF lenses demonstrated mixed results. Complication rates, IOL exchange, and excimer laser enhancement rates were low across all groups.

Conclusions

While enhanced monofocal and EDOF IOLs may provide slightly better binocular intermediate visual outcomes and higher spectacle independence compared with monofocal lenses in mini-monovision, the differences were not statistically significant. All three IOL types demonstrated high patient satisfaction rates when used within a mini-monovision strategy, with reduced dependence on spectacles.

Dropless Cataract Surgery

Author Vandit M. Nanavaty, Janki H. Sharma, Mayank A. Nanavaty

Purpose

Dropless cataract surgery refers to perioperative medication-delivery strategies designed to eliminate or substantially reduce reliance on patient-administered postoperative eye drops. This narrative review critically appraises PubMed-indexed evidence across the principal domains of dropless care: endophthalmitis prophylaxis, anti-inflammatory efficacy, intraocular pressure (IOP) response, posterior-segment safety, patient preference, and health economics.

Methods

PubMed searches were performed in May 2026 using pre-specified terms including ‘dropless cataract surgery,’ ‘intracameral moxifloxacin,’ ‘subconjunctival triamcinolone,’ ‘sub-Tenon dexamethasone,’ ‘intracanalicular dexamethasone,’ and related terms. Adult cataract surgery studies evaluating regimens that eliminate or materially reduce postoperative topical drops were included. Systematic reviews, randomised controlled trials (RCTs), large registry studies, and comparative cohorts were prioritised.

Results

Intracameral antibiotic prophylaxis — particularly moxifloxacin and cefuroxime — represents the most robustly evidenced component of dropless protocols, with a 78% relative risk reduction in endophthalmitis (risk ratio [RR] 0.22, 95% CI 0.07–0.77; p = 0.02) demonstrated by meta-analysis of RCTs without endothelial compromise. Subconjunctival and sub-Tenon triamcinolone acetonide provide non-inferior anti-inflammatory prophylaxis to topical prednisolone in adequately powered comparative studies and a 70,751-eye meta-analysis, but steroid response risk is approximately twice that of topical therapy (odds ratio [OR] 2.43, 95% CI 1.03–6.02) and is amplified seven-fold by comorbid glaucoma (OR 7.18, 95% CI 2.66–19.22). Intravitreal compounded triamcinolone-moxifloxacin achieves high drop-independence rates but carries specific compounding-related risks, including toxic posterior segment syndrome, haemorrhagic occlusive retinal vasculitis, crystalline retinal deposits, and breakthrough endophthalmitis. Sustained-release dexamethasone devices offer acceptable control of inflammation with an IOP safety profile broadly comparable to that of topical prednisolone. Patient satisfaction strongly favours dropless approaches, and modelled cost savings reach 84.7% per eye.

Conclusions

Current evidence supports the selective adoption of dropless cataract surgery, with intracameral antibiotic prophylaxis combined with a carefully chosen anti-inflammatory depot or sustained-release system. Compounded posterior-segment steroid-antibiotic injections should not be used indiscriminately. Steroid-depot protocols are relatively contraindicated in known steroid responders, uncontrolled glaucoma, and eyes with significant retinal risk. Rescue topical anti-inflammatory access must be maintained.

Awareness and Enthusiasm of Medical Students Towards Cataract and Refractive Surgery at Barts and The London School of Medicine and Dentistry

Author Vandit Nanavaty. Anish Verma

Purpose

To evaluate awareness, understanding, and enthusiasm for cataract and refractive surgery among medical students at Barts and The London School of Medicine and Dentistry, and to identify perceived barriers and motivators to engagement with ophthalmology as a career.

Methods

A cross-sectional, anonymous online survey was distributed to medical students across all years (Years 1–5 and intercalating).Each author approached 20 students each (over 3 weeks) asking them to fill out the form and this was done via online messaging platforms such as WhatsApp. The questionnaire captured self-reported familiarity with cataract and refractive surgery, exposure to ophthalmology teaching and clinical placements, interest in pursuing ophthalmology (5-point Likert scale), and perceived barriers and motivators to engaging with the specialty. Descriptive analysis was performed to summarise responses.

Results

Twenty three students completed the survey but 4 students completed the form incorrectly and thus their responses were discarded leaving nineteen students completed the survey properly. Overall familiarity with cataract and refractive surgery was low, particularly among pre-clinical students, many of whom had only “heard of” these procedures without understanding techniques or indications. Ophthalmology exposure was limited to brief placements or isolated pre-clinical lectures, with minimal opportunities for surgical observation. Enthusiasm for pursuing ophthalmology was modest, with most students reporting Likert scores between 1 and 3. Reported factors that increased enthusiasm included greater surgical exposure, practical skills workshops, insight into evolving technologies, and clearer demonstration of patient outcomes. Key barriers included limited curricular exposure, perceived technical difficulty, poor awareness of ophthalmology career pathways, apprehension about microsurgical precision, and misconceptions regarding the accessibility and indications of refractive procedures.

Conclusion

Medical students at this UK medical school demonstrate limited awareness and moderate-to-low enthusiasm for cataract and refractive surgery, which appears closely linked to insufficient curricular exposure and knowledge gaps. Early, structured ophthalmology teaching, more opportunities for surgical observation, and interactive skills-based workshops may enhance engagement with the specialty. Strengthening undergraduate ophthalmology education could support more informed career decision-making in a field facing increasing demand and rapid technological innovation.

Seeing beyond the operating microscope: MSICS, dropless surgery, and the case for scalable cataract care

Author Hamad Hejazi

Institution Newcastle upon Tyne Hospitals NHS Foundation Trust

Category Cataract Surgery

Abstract / summary

Cataract remains the world's leading cause of blindness, with an estimated 94 million people affected globally and surgical coverage rates ranging from 4% to 70% across nations. This disparity reflects a correctable systems failure rather than a disease problem. Two underutilised techniques, manual small incision cataract surgery (MSICS) and dropless cataract surgery, address its operative and postoperative dimensions respectively.

A Cochrane review of eight RCTs demonstrates equivalent visual outcomes between MSICS and phacoemulsification at a fraction of the cost. Dropless prophylaxis reduces healthcare system costs by 84.7% and eliminates adherence failure as a variable. Used in combination, these techniques present a compelling, evidence-informed framework for high-volume, scalable cataract care in resource-limited settings, with implications for UK surgical training and practice.

This poster is based on the following article I published in The Journal of Foundations of Ophthalmology, which can be found here - https://www.jfophth.com/seeing-beyond-the-operating-microscope-msics-dropless-surgery-and-the-case-for-scalable-cataract-care/

Shifting Public Interest in Vision Correction Surgery in the UK: A Google Trends Analysis Across the COVID-19 Pandemic (2018–2026)

Author Finian O'Malley

Institution Princess Alexandria Hospital, UK

Category Refractive surgery

Objectives

Patient-driven demand shapes refractive surgery practice. Google Trends provides freely accessible, population-level data on search behaviour as a proxy for public intent to seek surgical consultation. We aimed to characterise how UK public interest in vision correction surgery changed across the COVID-19 pandemic and identify structural shifts in procedure-specific demand.

Methods

Google Trends (trends.google.com) was queried for the United Kingdom across five search terms (laser eye surgery, SMILE eye surgery, cataract surgery, lens replacement surgery, ICL surgery) from January 2018 to May 2026. Monthly relative search volume (RSV, scaled 0–100) was extracted. Pre-COVID baseline was defined as January 2018 to February 2020. Lockdown (March–June 2020), rebound (July 2020–December 2021), and post-COVID (January 2022 onwards) periods were compared. Linear trends were assessed for the post-COVID period.

Results

All terms showed acute RSV decline during lockdown, laser eye surgery fell 38.4% below baseline. Post-COVID, however, the landscape showed some clear trends. SMILE eye surgery RSV increased 120% above pre-COVID baseline (mean RSV 32 to 71), now surpassing laser eye surgery as the dominant specific-procedure search. Cataract surgery RSV increased 98% above baseline, consistent with growing NHS waiting list awareness. ICL surgery emerged from near-zero baseline (RSV 5) to current RSV of 65: a 12-fold increase. Conversely, broad laser eye surgery searches remain 18% below pre-COVID baseline. Linear trend analysis (2022 onwards) confirmed declining laser eye surgery interest (slope −0.25 RSV/month, $p<0.001$) against rising SMILE (slope +0.64/month, $p<0.001$) and cataract surgery (slope +0.40/month, $p<0.001$). A January–February seasonal peak was identified across laser procedures (amplitude 44%).

Conclusions

UK public interest in vision correction has structurally shifted post-COVID: SMILE and ICL are replacing legacy laser eye surgery as the leading consumer search categories, while cataract surgery demand is surging. These freely available data provide real-time demand intelligence for refractive surgery practice planning.

Refractive Predictability Following Combined Phacoemulsification and Hydrus Microstent Implantation: Are MIGS Eyes Truly Refractively Neutral?

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Category Lens-based surgery

Aim

To evaluate refractive predictability and visual outcomes following combined phacoemulsification and Hydrus micro-stent implantation compared with standard phacoemulsification alone.

Methods

This retrospective case–control study was conducted at Worcestershire hospital. One hundred consecutive eyes undergoing combined phacoemulsification and Hydrus implantation from October 2024 onwards were compared with 100 standard phacoemulsification controls from the same surgeons' lists. All eyes underwent Pentacam biometry and had pre- and postoperative refraction data available from community optometrists. Only uncomplicated surgeries were included, with no cases of posterior capsular rupture or vitreous loss. Postoperative refractive deviation from target refraction, visual acuity change, and intraocular pressure (IOP) reduction were analysed.

Results

Refractive predictability was lower in the Phaco–Hydrus group. Outcomes within ±0.50 D of target refraction were achieved in 58% of Phaco–Hydrus eyes compared with 90% of controls, while refractive deviations >±1.00 D occurred in 18% versus 1%, respectively.

A mild but statistically significant correlation was identified between greater postoperative IOP reduction and increased absolute refractive deviation ($R = 0.276$, $p = 0.0054$). IOP reduction exceeded 30% in 58% of Hydrus eyes and exceeded 50% in 21%.

Visual acuity improved in 58% of Phaco–Hydrus eyes and 89% of controls, remained stable in 27% and 10%, and deteriorated in 14% and 1%, respectively.

Conclusions

Combined Phaco–Hydrus surgery demonstrated reduced refractive predictability compared with standard phacoemulsification alone, with greater refractive variability associated with larger postoperative IOP reductions. These real-world findings contrast with previously reported refractive neutrality in Hydrus eyes and suggest that combined MIGS-cataract surgery may influence postoperative biometric accuracy.

Identifying gaps in cataract surgery complication reporting in electronic health records using manual and automated approaches

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Category Cataract surgery

Background

Accurate complication reporting underpins surgical audit, quality improvement, and training. We sought to quantify the completeness of structured complication recording in a large real-world cohort of patients undergoing cataract surgery, and to evaluate the utility of large language models (LLMs) as a scalable approach to automating the recovery of this "hidden" data from unstructured free text.

Methods

176,088 phacoemulsification cataract surgeries (111,792 patients) performed by 877 surgeons at 15 sites across Moorfields Eye Hospital from 2013-2024 were analysed. A combined reference standard was constructed from the union of structured dropdown fields and manually reviewed free-text operation notes. Completeness (defined as the proportion of reference events recorded as structured data alone) was evaluated for 15 common complications. Temporal trends were examined using mixed-effects regression with the surgeon as the clustering variable. Five local LLMs (9-24B parameters) were deployed on a subset of 700 cases.

Results

The overall intraoperative complication rate was 3.9% from structured fields alone and 5.2% by the combined reference standard, representing a documentation capture rate of 75.6%. Posterior capsule rupture (PCR) was captured in 87.4% of reference events, while others were less complete (zonular dialysis 76.1%, dropped nucleus 64.9%, intraoperative IOL exchange 34.3%). Structured recording of PCR increased slightly over the study period (OR 1.10 per year, 95% CI 1.06–1.15, $p<0.001$). Substantial inter-surgeon variability in structured complication recording was observed. For automated data extraction, the best performing model-prompt configuration achieved a sensitivity of 0.934 (95% CI 0.890–0.972), specificity 0.995 (0.988–1.000), PPV 0.977 (0.977–1.000), NPV 0.984 (0.973–0.993), and F1 0.955 (0.927–0.978) for PCR, with strong performance across all other complications (F1 score ranging from 0.844 to 0.966).

Conclusions

Structured EHR fields systematically under-record intraoperative cataract complications, but showed some improvement in documentation completeness over the study period. Reliance on structured EHR fields alone may introduce systematic bias into surgical complication surveillance, with implications for audit quality, validity, clinical coding and reimbursement, and equitable revalidation. LLM-augmented information extraction may represent a scalable route to recovering this signal.

Visual outcomes of Technis Eyhance Enhanced Monofocal Intraocular Lens (IOL) in cataract surgery combined with DMEK (Triple DMEK)

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Category Cornea

Purpose

To report the visual and refractive performance of an enhanced monofocal lens (Tecnis Eyhance ICB00) for far, intermediate and near vision in eyes undergoing combined cataract and Descemet membrane endothelial keratoplasty (DMEK) surgery (triple DMEK) with consideration of defocus curves.

Method

This is a retrospective interventional case series of eyes at the cornea service of two UK teaching hospitals – Southend University Hospital and Royal Devon & Exeter Hospital. 25 eyes of 23 patients assessed at 6 months post-operatively. All patients underwent phacoemulsification with in-the-bag IOL implantation of Tecnis Eyhance IOL and standard DMEK surgery with air or SF6 tamponade. The target refraction was calculated using Barrett universal formula, with a –0.50D myopic target, with higher degrees of myopia targeted in cases with significant corneal oedema or topographic hotspots. Pre-and post-operative topography and aberrometry was obtained with MS39. Uncorrected and distance corrected visual acuity was assessed at distance (6m), intermediate (70cm) and near (40cm). Defocus was assessed from +1.50D to -4.00D monocularly and binocularly.

Results

Uncorrected distance visual acuity (UDVA) was 0.21± 0.16 LogMAR and significantly improved to 0.06 ±0.08 with distance correction (CDVA)($p<0.01$). There were no significant differences in UIVA (0.32±0.16) and DCIVA (0.28±0.12)($p = 0.28$), nor in UNVA(0.43±0.20) and DCNVA(0.39±0.19)($p=0.37$). Mean spherical equivalent (MSE) was 0.20 ± 0.97 and 84% gained 2 or more lines in acuity post-operatively. Visual acuity >0.2LogMAR was achieved between 0.50 and -1.00D defocus.

Conclusion

The use of intraocular lenses designed to modulate spherical aberration offers a safe means of potentially extending functional vision following combined cataract and DMEK surgery

Mix and match approach, utilising a new spiral refractive intraocular lens: A pilot series

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Category Refractive surgery

Purpose

To assess visual outcomes and defocus following bilateral lens replacement surgery and implantation of the RayOne EMV IOL in the dominant eye and RayOne Galaxy IOL in the non-dominant eye.

Setting

Southend Private Hospital, Essex, United Kingdom

Methods

At 1-month post-operatively, a pilot cohort of 10 subjects (20 eyes) were assessed. All outcome measures were assessed at a follow up visit by an experienced optometrist in a single testing room under photopic lighting conditions (85cd/m2) using our standard post-operative visual performance protocol. Standard subjective refraction (maximum plus) was conducted. Uncorrected and distance corrected acuity was assessed using a 6m computerised ETDRS logMAR chart monocularly and binocularly. Intermediate and near acuity were recorded using the ETDRS 70cm chart and ETDRS 40cm near charts respectively. Monocular and binocular distance corrected defocus profiles were assessed from +1.50D to -4.00D was measured in 0.50D steps with additional points at +0.25D and -0.25D.

Results

Manifest spherical equivalent in the EMV eye was -0.10±0.14, and the Galaxy eye was -0.14±0.26. Binocular uncorrected distance visual acuity (UDVA) was -0.06 ± 0.06 LogMAR. Binocular uncorrected intermediate vision (UIVA) was 0.12 ± 0.11 logMAR and binocular uncorrected near acuity was 0.10± 0.01 logMAR. Defocus profile showed acuity >0.20 logMAR between 1.00 and -2.50D of imposed defocus. Spectacle independence was achieved in all cases.

Conclusions

Preliminary analysis suggests mix and match RayOne EMV/Galaxy is a feasible strategy for achieving spectacle independence with no significant dysphotopsia noted.

Visual outcomes and defocus profile of the RayOne Galaxy spiral, refractive intraocular lens: first 80 eyes

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Category Refractive surgery

Purpose

To assess the real-world visual and patient reported outcomes in a spiral IOL.

Methods

This is a retrospective cohort study based at Southend Private Hospital. Two consultant surgeon performed bilateral same-surgeon implantation of either RayOne Galaxy or RayOne Galaxy Toric. Three-month post-operative assessment of distance, intermediate and near acuity, refraction, defocus profile, contrast sensitivity, halometry and patient reported outcome measures following bilateral implantation of the RayOne Galaxy/ Galaxy Toric IOL were reported.

Results

Binocular uncorrected distance acuity (UDVA) was 0.03±0.07LogMAR, uncorrected intermediate and near visual acuity was 0.08±0.06 and 0.16±0.08 respectively. Post-operatively, 90% of subjects achieved UDVA £0.10LogMAR binocularly. Manifest spherical equivalent (MSE) was -0.14±0.28D and 96% of eyes were within ±0.50D. Binocular contrast sensitivity was 1.41±0.10LogCS. Defocus profile shows excellent acuity (<0.10LogMAR) maintained between +0.50 and -1.50D of imposed defocus, and also <0.20LogMAR between +1.00 and -2.50D. Overall satisfaction and spectacle independence was high, 95% and 96% respectively. Only 1 patient reported visual disturbances. Halometry showed mean halo size of 1.93deg2±1.09.

Conclusion

Both RayOne Galaxy and Galaxy Toric IOL provide a continuous range of focus with minimal reports of dysphotopsia. Particular attention must be paid to refractive target and correction of astigmatism in order to optimise distance performance.

Visual Outcomes With The Zoe Intraocular Lens Targeting Low Myopia In The Non-Dominant Eye

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Category Refractive surgery

Purpose

To evaluate visual outcomes following bilateral implantation with the OphthalmoPro Zoe IOL targeting low myopia in the non-dominant eye

Setting

Southend University Hospital, Essex, United Kingdom

Methods

At 3 months post-operatively, all outcome measures were assessed at a follow up visit by an experienced optometrist in a single testing room under photopic lighting conditions (85cd/m2) using our standard post-operative visual performance protocol. Standard subjective refraction (maximum plus) was conducted. Uncorrected and best corrected distance acuity was assessed using a 6m computerised ETDRS logMAR chart monocularly and binocularly. Intermediate and near acuity were recorded using the ETDRS 70cm chart and ETDRS 40cm near charts respectively. Monocular and binocular distance corrected defocus profiles were assessed from +1.50D to -4.00D was measured in 0.50D steps with additional points at +0.25D and -0.25D.

Results

Manifest spherical equivalent in the dominant eye was 0.00±0.29, and the non-dominant eye was -0.63±0.65. Binocular uncorrected distance visual acuity was 0.09 ± 0.08 LogMAR, improving to 0.04 ± 0.06 with distance correction. Binocular uncorrected intermediate vision was 0.22 ± 0.11LogMAR and binocular uncorrected near acuity was 0.40 ± 0.15LogMAR. Defocus profile showed acuity >0.20LogMAR between 0.50 and -1.50D of imposed defocus. Mean contrast sensitivity was 1.32± 0.07, and there was no significant difference between monocular and binocular data.

Conclusions

The Ophthalmo Pro Zoe Intraocular lens with targeted monovision is a useful strategy for achieving improved intermediate vision and lowering dependence on spectacles for distance and intermediate vision following cataract surgery.

Posterior Corneal Astigmatism Changes Following Keratoplasty With and Without Replacement of Descemet's Membrane and Its Relationship to Pachymetry

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Category Refractive surgery

PURPOSE

To compare posterior corneal astigmatism (PKm) following keratoplasty procedures with and without replacement of Descemet's membrane, specifically penetrating keratoplasty (PK), deep anterior lamellar keratoplasty (DALK), and Descemet membrane endothelial keratoplasty (DMEK), and to evaluate its relationship with central corneal thickness (CCT).

METHODS

Retrospective analysis of 202 eyes (PK, n = 63; DALK, n = 41; DMEK, n = 98) with postoperative Scheimpflug tomography (Pentacam; Oculus, Inc) performed at a single tertiary centre between 2016 and 2024. After exclusion of outliers (pachymetry >650 µm), 184 eyes were analysed (PK, n = 54; DALK, n = 38; DMEK, n = 92). Posterior keratometric astigmatism magnitude and CCT were recorded. Comparisons were performed using one-way analysis of variance with Bonferroni-adjusted post hoc tests. Spearman correlation and linear regression assessed the association between PKm and CCT. Age-adjusted analysis was performed using principal component regression.

RESULTS

Mean age differed significantly between groups (DALK, 43.2 ± 14.9 years; PK, 63.8 ± 15.8 years; DMEK, 73.3 ± 12.8 years; P < .001). Mean PKm did not differ significantly among groups (PK, −6.3 ± 1.0 diopters [D]; DALK, −6.6 ± 0.6 D; DMEK, −6.3 ± 0.8 D; P = .708). CCT was significantly lower in DMEK eyes (528.8 ± 43.2 μm) than in PK (550.0 ± 53.1 μm; P = .026) and DALK eyes (551.2 ± 45.5 μm; P = .041). Spearman correlation between PKm and CCT was weak: PK, r = −0.23; DMEK, r = −0.22; DALK, r = −0.03. On regression, a statistically significant but weak association was found only in the DMEK group (P = .038, R^2 = 0.048).

CONCLUSION

Posterior corneal astigmatism magnitude did not differ significantly among PK, DALK, and DMEK eyes. CCT was a poor predictor of posterior corneal curvature across all keratoplasty types, with only a weak association observed in DMEK eyes. These findings highlight the need to measure posterior corneal astigmatism directly, rather than relying on pachymetric surrogates, when planning refractive procedures or intraocular lens implantation in post-keratoplasty eyes.

Keywords

posterior corneal astigmatism, keratoplasty, penetrating keratoplasty, deep anterior lamellar keratoplasty, Descemet membrane endothelial keratoplasty, pachymetry, intraocular lens power calculation.

Long-term Outcomes of Combined Phacoemulsification and Intravitreal Dexamethasone Implant in Diabetic Macular Oedema

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Category Refractive surgery

Background

Cataract surgery in eyes with diabetic macular oedema (DMO) is associated with a high risk of postoperative oedema exacerbation, potentially limiting visual recovery. Combined phacoemulsification with intravitreal dexamethasone implant has been proposed to mitigate this risk, but long-term outcomes remain poorly characterised.

Methods

This single-centre retrospective observational study included 162 eyes of 126 patients with DMO and visually significant cataract who underwent combined phacoemulsification and intravitreal dexamethasone implant between January 2019 and December 2024. Best-corrected visual acuity (BCVA), central macular thickness (CMT), intraocular pressure (IOP), retreatment burden, and safety outcomes were assessed up to 5 years postoperatively. Longitudinal changes were analysed using linear mixed-effects models, and retreatment-free survival was evaluated using Kaplan–Meier analysis.

Results

Mean follow-up was 30.8 ± 16.9 months. Significant early visual improvement was observed, with adjusted mean BCVA gains of 6.6 letters at 1 month ($p<0.001$), 4.3 letters at 3 months ($p=0.007$), and 3.1 letters at 6 months ($p=0.047$). At final follow-up, 21.6% of eyes achieved a ≥15-letter gain. CMT showed maximal reduction at 1 month (−60.1µm, $p<0.001$), with statistically significant reductions persisting through 3 years. 76 eyes (46.9%) required retreatment, with a median retreatment-free survival of 29.2 months. Raised IOP requiring topical therapy occurred in 12.3% of eyes; no surgical intervention was required.

Conclusion

Combined phacoemulsification with intravitreal dexamethasone implant provides meaningful early visual improvement and sustained anatomical benefit in eyes with DMO, with acceptable long-term safety and a substantial proportion remaining retreatment-free beyond 2 years.

Defocus Profiles Using A Pyramidal Wavefront -Sensor Based Aberrometer

Author Talha Soorma, Elizabeth Law, , Alexander Fraser, James Myerscough

Purpose

Purpose: Assesment of defocus profiles is a time-consuming but valuable post-operative assessment in cataract surgery and refractive lens exchange, particularly when increased range of focus has been targeted with the use of advanced intraocular lenses. This study aims to compare subjective defocus measurements for three differing IOL designs with defocus data obtained using the CSO Osiris waverfront sensor-based aberrometer.

Methods

This retrospective study assessed 60 eyes following implantation of the RayOne Galaxy IOL, Tecnis Eyhance IOL and Ophthalmo Pro Zoe IOL. All subjects were assessed at a 3 month post-operative visit. Unaided and distance corrected visual acuity was measured using ETDRS LogMAR charts, Monocular defocus was assessed subjectively with imposed defocus of +1.50D to -4.00D in 0.5D steps, with additional steps at 0.25D and -0.25D, using established protocols. The Osiris aberrometer was using to create a defocus profile from +1.95 to -5.00 in 0.05D steps, and corresponding points to subjective data were considered.

Results

Following implantation of the Eyhance IOL (n=20), mean uncorrected distance visual acuity(UDVA) was 0.20±0.16LogMAR, and corrected distance visual acuity (CDVA) was 0.05±0.08. Second order polynomial curves were fitted to both subjective and objective defocus data, y=0.01x2 -0.11x+0.45, and y=0.01x2 -0.11x+0.62 respectively. Difference in constants 0.17, was similar to difference in UDVA and CDVA.

The Zoe IOL (n=20), mean UDVA was 0.35 ± 0.14LogMAR and CDVA was 0.09 ± 0.07, a mean difference of 0.28. Polynomial

y = 0.01x2 - 0.11x + 0.42, was similar, yet pronounced differences were noted through the near range

There was no correlation between defocus with the RayOne Galaxy, particularly throughout the intermediate and near range.

Conclusion

The CSO Osiris aberrometer provides a useful tool for plotting defocus profile with monofocal IOLs utilising spherical aberration to elongate range of focus, with a slight underestimation of near performance in comparison to subjective data.

However the spiral refractive track of the RayOne Galaxy, is a more compex optic and as such, the aberrometry predicted defocus profile is not an accurate estimation of real world performance

Post occlusion surge and PC rupture management in a dense cataract

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Category Refractive surgery

Video description

1 post occlusion surge in dense cataract leading to small PC rupture

2 how to manage PC rupture and inserting in the bag PCIOL after following good practice

3 key points in managing dense cataract - big rhexis, protect endothelium, etc

Video duration

4 mins 2 secs

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