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109th Oxford Ophthalmological Congress

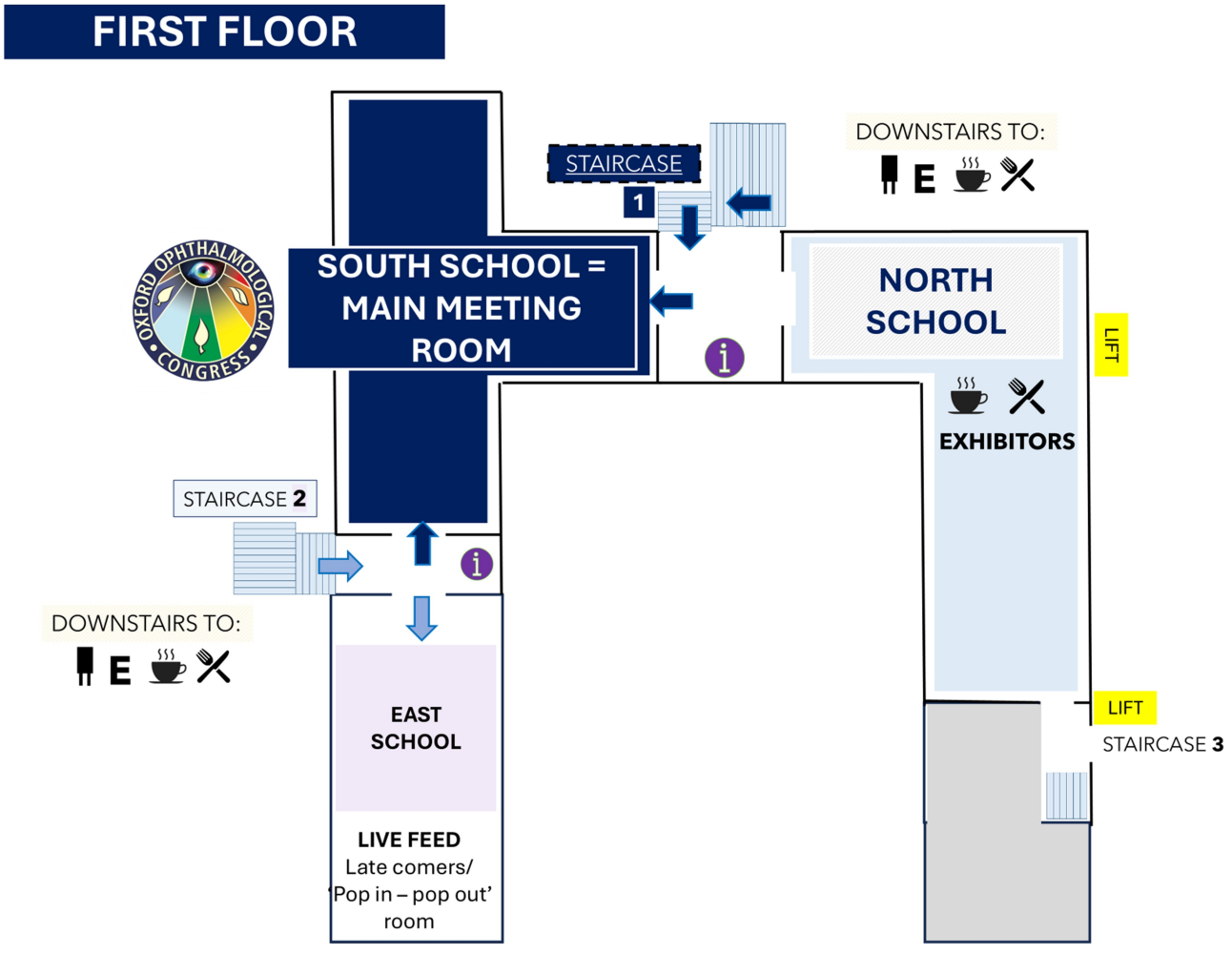
6th –8th July 2026

ABSTRACT MENU

FULL Delegate Programme

Get your bearings

VIRTUAL TOUR



Welcome to the 109th Oxford Ophthalmological Congress

Registration desk:

Louise Richards and her team will be available if you have any questions about proceedings.

- Main registration desk: Ground Floor Foyer.
- Additional Information Desks on the First Floor Landings:
  1. Between the South and North Schools (Staircase 1) and,
  2. between the South and East Schools (Staircase 2).

CPD

The Royal College of Ophthalmologists approves Oxford Ophthalmological Congress to award up to 24.5 self-accredited points (including scientific lecture attendance and poster viewing opportunities). An e-copy of your CPD Certificate will be emailed to you shortly after the meeting.

Meeting evaluation

Your feedback about the meeting is invaluable to Oxford Ophthalmological Congress and the speakers presenting. Please complete your evaluation survey online by the 14 July 2026. Survey links will be emailed to delegates and can be found at: https://www.ooc.uk.com/evaluation.

Electronic Programme

The full programme is available on the website.

MONDAY 6th JULY	TUESDAY 7th JULY	WEDNESDAY 8th JULY
Registration opens: 08:15	Registration opens: 08:15	Registration opens: 08:30
Scientific Sessions: START 09:30 **Main Meeting Room:** South School **Live Feed Room:** East School	**Scientific Sessions:** START 09:00 **Main Meeting Room:** South School **Live Feed Room:** East School	**Scientific Sessions:** START 09:15 **Main Meeting Room:** South School **Live Feed Room:** East School
Scientific Posters: Ground Floor Rooms **Trade Exhibition and Catering:** North School & Ground Floor	**Scientific Posters:** Ground Floor Rooms **Trade Exhibition and Catering:** North School & Ground Floor	**Scientific Posters:** Ground Floor Rooms **Trade Exhibition and Catering:** North School & Ground Floor
Garden Party The Quad - Examination Schools	**Gala Dinner** Rhodes House *S Parks Rd, OX1 3RG*	**Scientific sessions:** CLOSE 15:45

WIFI ACCESS

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4. Wi-Fi connected!

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Contents

109th Oxford Ophthalmological Congress, 6-8th July 2026
Master's Welcome
Mr Manoj V. Parulekar

Oxford & Birmingham, UK

Dear colleagues,

A warm welcome to the 109th Oxford Ophthalmological Congress. Since 1909 the council has organised the annual congress, combining practical ophthalmology teaching with the latest scientific advances. As ophthalmology becomes ever more subspecialised, the general nature of the meeting becomes even more relevant to ensure we update ourselves in other subspecialties. The symposia this year include the orbit and oculo-plastics, a hot topics session exploring the latest across subspecialties, and a session on surgical techniques. There is a session on visual problems and their impact on choice of career, driving etc, and a session on systemic disorders and the eye. We will hear from experts on how new technology influences our practice in the Frontiers session.

The theme for the Master's symposium is orbital disease and oculoplastics. We are privileged to have speakers from the UK, Europe and USA who would be talking about evaluation of the orbit, childhood ptosis surgery, transorbital approach to the skull base, orbital and facial prosthetics, gut health and the eye, and thyroid eye disease.

The hot topics session covers anterior and posterior segment disease, advances in glaucoma and neuro-ophthalmology and photo biomodulation There will be a session dedicated to surgical techniques covering strabismus surgery, IOL implantation, lid repair, and optic nerve and submacular surgery.

The Doyne lecture in memory of the founder of the Congress will be given by Professor Chris Hammond on the increasingly prevalent condition of myopia, and strategies for prevention. Other highlights include the rapid fire session, posters, and interesting cases.

The meeting now starts on Monday morning and runs through to Wednesday afternoon. We moved to a new venue last year- the grand Examination Schools with lectures, food, trade exhibition and posters all under one roof. It is also a fine building for the garden party on Monday, with sparkling wine and strawberries and cream. The congress dinner will be, for the first time, in Rhodes House, a magnificent building in the heart of the University with a fine dining room.

I look forward to warmly welcoming each one of you to Oxford, to facilitate the mission of the Congress- enabling the cultivation of the spirit of good fellowship and of unconventionality, the right of our youngest member to rank with his oldest colleague, and last, but assuredly not least, the frank, free and tolerant discussion of scientific matters brought before its gathering.

Manoj V. Parulekar, 2025 & 2026 OOC Master

2026 Programme Overview

09:30 - 17:30	MONDAY 6th JULY
09:30 - 11:00	**MASTER'S SYMPOSIUM: OPENING PANDORA'S BOX - ORBITAL DISEASE** Chair: **Manoj V. Parulekar**, Oxford and Birmingham, UK
11:00 - 11:45	***Refreshments, Posters and Exhibition***
11:45 - 13:00	**MASTER'S SYMPOSIUM: OPENING PANDORA'S BOX - ORBITAL DISEASE** *continued* Chair: **Manoj V. Parulekar**, Oxford and Birmingham, UK
13:00 - 14:30	***Lunch, Posters and Exhibition***
14:30 - 16:00	**HOT TOPICS** Chairs: **Christiana Dinah**, London, UK & **Colin Chu**, London, UK
16:00 – 16:30	***Refreshments, Posters and Exhibition***
16:30 - 17:30	**Poster Viewing Session**
17:30 – 19:00	**Examination Schools, The Quad: OOC Garden Party**

09:00 - 17:15	TUESDAY 7th JULY
09:00 - 10:30	**RAPID FIRE SESSION** Chairs: **Susan Mollan**, Birmingham, UK and Kingston, Canada & **Rachel Pilling**, Bradford, UK
10:30 - 11:15	***Refreshments, Posters and Exhibition***
11:15 - 12:30	**DOYNE LECTURE: THE LONG VIEW ON SHORT-SIGHT: THE FUTURE OF MYOPIA** Lecturer: Professor **Chris Hammond**, London, UK
12:30 - 14:00	***Lunch, Posters and Exhibition***
14:00 - 15:30	**LETTERS ON A CHART MEAN NOTHING** Chairs: **S. James Talks**, Newcastle, UK & **Marie Hickey-Dwyer**, Limerick, Ireland
15:30 – 16:00	***Refreshments, Posters and Exhibition***
16:00 - 17:15	**FOCUS ON SURGICAL TECHNIQUES** Chairs: **Roxane Hillier**, Newcastle upon Tyne, UK & **Peng T. Khaw**, London, UK
From 19:00	**RHODES HOUSE: OOC Gala Dinner** (Drinks from 19:00, called to dinner at 19:55)

09:15 - 15:45	WEDNESDAY 8th JULY
09:15 - 10:45	**PUSHING THE FRONTIERS: EMERGING STRATEGIES FOR EYE HEALTH** Chairs: **Pearse Keane**, London, UK & **A. Lola Solebo**, London, UK
10:45 - 11:15	***Refreshments, Posters and Exhibition***
11:15 - 12:35	**INTERESTING CASES** Chair: **Mandeep S. Sagoo**, London, UK
12:35 - 12:45	**Prizes**
12:45 - 14:15	***Lunch, Posters and Exhibition***
14:15 - 15:30	**SYSTEMIC DISORDERS AND THE EYE** Chairs: **Erika Damato**, Cambridge, UK & **Sarah Coupland**, Liverpool, UK
15:30 - 15:45	**Master's closing comments & Handover to the next Master**

DOYNE Lecture

THE LONG VIEW ON SHORT-SIGHT: THE FUTURE OF MYOPIA

109th Oxford Ophthalmological Congress
DOYNE LECTURER

Professor **Chris Hammond**, London, UK

Professor Hammond is Professor of Ophthalmology at King's College London and is a paediatric ophthalmologist/strabismologist at St Thomas' Hospital in London, with a special interest in myopia. His research examines the genetic epidemiology of myopia and other common eye diseases including glaucoma, age-related cataract, dry eye disease and age-related macular degeneration. His research is aiming to deliver personalized, predictive, preventive and participatory medicine, using Omics technology and Big Data analytics with the ultimate aim of reducing blindness and debilitating eye diseases. His research is highly collaborative, and he contributes to international consortia with data from the TwinsUK cohort, UK Biobank and local patient datasets.

MONDAY 6th JULY 2026

09:30 - 11:00	**MASTER'S SYMPOSIUM: OPENING PANDORA'S BOX - ORBITAL DISEASE**	
	Chair: **Manoj V. Parulekar**, Oxford and Birmingham, UK	
09:30 - 10:00	Evolution of the eye	**Jeroen Klevering**, Nijmegen, NL
10:00 - 10:20	Peri-orbital swelling - a systematic approach	**Richard Allen**, Houston, USA
10:20 - 10:40	Creating faces	**Stefan Edmondson**, Birmingham, UK
10:40 - 11:00	The microbiome and the eye	**Raman Malhotra**, East Grinstead, UK
11:00 - 11:45	***Refreshments, Posters and Exhibition***	

11:45 - 13:00	**MASTER'S SYMPOSIUM: OPENING PANDORA'S BOX - ORBITAL DISEASE**	
	Chair: **Manoj V. Parulekar**, Oxford and Birmingham, UK	
11:45 - 12:15	Childhood ptosis	**Richard Allen**, Houston, USA
12:15 - 12:35	TONES	**Shahz Ahmed**, Birmingham, UK
12:35 - 12:55	TED – What's new?	**Rebecca Ford**, Bristol, UK
12:55 - 13:00	Summing up	**Manoj V. Parulekar**, Oxford and Birmingham, UK
13:00 - 14:30	***Lunch, Posters and Exhibition***	

14:30 - 16:00	**HOT TOPICS**	
	Chairs: **Christiana Dinah**, London, UK & **Colin Chu**, London, UK	
14:30 - 14:45	AI modelling in anterior segment disease	**Bruce Allan**, London, UK
14:45 - 15:00	VR – PVR	**Roxane Hillier**, Newcastle Upon Tyne, UK
15:00 - 15:15	Glaucoma	**Laura Crawley**, London, UK
15:15 - 15:30	Neuro-ophthalmology - GLP1 & NAION	**Susan Mollan**, Birmingham, UK and Kingston, Canada
15:30 - 15:45	Photobiomodulation	**Ben Burton**, Great Yarmouth, UK
15:45 - 16:00	*Discussion*	
16:00 - 16:30	***Refreshments, Posters and Exhibition***	

16:30 - 17:30	**POSTER VIEWING SESSION**
	Posters - Ground Floor. **E-posters available on the OOC website.**

17:30 - 19:00	**EXAMINATION SCHOOLS, THE QUAD: OOC Garden Party** *(reserved places only)*

TUESDAY 7th JULY 2026

09:00 - 10:30 RAPID FIRE SESSION

Chairs: **Susan Mollan**, Birmingham, UK and Kingston, Canada & **Rachel Pilling**, Bradford, UK

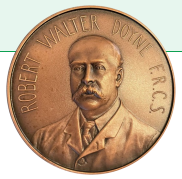
09:00 - 09:05	*Introduction*	**Susan Mollan**, Birmingham, UK and Kingston, Canada
09:06 - 09:11	**52** - Four-Year Outcomes of Faricimab in nAMD: Safety and Tolerability Results From the AVONELLE-X Long-Term Extension Trial	**S. James Talks**, Newcastle Upon Tyne, UK
09:12 - 09:17	**53** - Two-Year Effectiveness, Durability and Safety of Faricimab in Eyes with DMO: Results From the UK FARWIDE-DMO Study	**Christine Kiire**, Oxford, UK
09:18 - 09:23	**55** - Diabetic Retinopathy Screening Outcomes After age 80	**Arya Ghatge**, Gloucester, UK
09:24 - 09:29	**41** - Automated AI-Based Coregistration Platform for Microperimetry and Optical Coherence Tomography Enables Structure-Function Analysis in Retinal Disease	**Vasil Kostin**, Oxford, UK
09:30 - 09:35	**1** - Randomised Controlled Trial of Topical Combination Therapy Chlorhexidine 0.2% and Natamycin 5% Versus Topical Natamycin 5% Alone for Fungal Keratitis in East Africa	**Jeremy Hoffman**, London, UK
09:36 - 09:41	**32** - Improving the Molecular Diagnostic Rate for Developmental Glaucoma in the 100,000 Genomes Project	**Nicky Cronbach**, London, UK
09:42 - 09:47	**54** - Metagenomics for Ocular Inflammation - Initial Insights and Results From a Single-Site UK Study	**Daniyal Ansari**, Maidstone, UK
09:48 - 09:53	**91** - Nurse-led Optos Screening for Retinopathy of Prematurity (ROP)	**Venughanan Manikavasagar**, Derby, UK
09:54 - 09:59	**84** - Patient Reported Outcome Measures 1 Year After Uveal Melanoma Treatment	**Catharine Kwok**, Watford, UK
10:00 - 10:05	**111** - Microneedle Delivery of Stem cell-Derived Retinal Pigment Epithelial Cells	**Jared Ching**, Yokohama, Japan, Oxford, UK & Singapore
10:06 - 10:11	**92** - Neurofilament Light Chain as a Biomarker of Treatment Response in Idiopathic Intracranial Hypertension: a Longitudinal Study From the Idiopathic Intracranial Hypertension Weight Trial	**Michael Lowe**, Birmingham, UK
10:12 - 10:17	**112** - Efficacy of Intra-Retinal Arterial Cannulation for Central Retinal Artery Occlusion with Visible Platelet-Fibrin Emboli	**Shin Tanaka**, Yokohama, Japan & Oxford, UK
10:18 - 10:23	**90** - Calcitonin Gene-related Peptide Induces Headache Attacks in People with Idiopathic Intracranial Hypertension	**Andreas Yiangou**, Birmingham, UK
10:24 - 10:29	**110** - Primary Results of the Phase 3 SatraGO-1 and SatraGO-2 Trials: Efficacy and Safety of Satralizumab in Thyroid Eye Disease	**Daniel G. Ezra**, London, UK

10:30 - 11:15 ***Refreshments, Posters and Exhibition***

Posters - Ground Floor. E-posters available on the OOC website.

TUESDAY 7th JULY 2026

11:15 - 12:30 **2026 DOYNE LECTURE**



THE LONG VIEW ON SHORT-SIGHT: THE FUTURE OF MYOPIA

Doyne Lecturer: Professor **Chris Hammond**, London, UK

*Introduction and Doyne Medal presentation: Mr **Manoj V. Parulekar**, OOC Master*

12:30 - 14:00 ***Lunch, Posters and Exhibition***

14:00 - 15:30 **LETTERS ON A CHART MEAN NOTHING**

Chairs: **S. James Talks**, Newcastle upon Tyne, UK & **Marie Hickey-Dwyer**, Limerick, Ireland

14:00 - 14:20	Visual impairment and career choice	**Patrick Watts**, Cardiff, UK
14:20 - 14:35	Visual Field Loss – through the eyes of the patient	**David Crabb**, London, UK
14:35 - 14:50	Visual loss in macular disease	**Susan Downes**, Oxford, UK
14:50 - 15:05	Visual impact of nystagmus	**Jay Self**, Southampton, UK
15:05 - 15:20	Vision and driving	**Lauren Hepworth**, Liverpool, UK
15:20 - 15:30	Discussion	

15:30 - 16:00 ***Refreshments, Posters and Exhibition***

16:00 - 17:15 **FOCUS ON SURGICAL TECHNIQUES**

Chairs: **Roxane Hillier**, Newcastle upon Tyne, UK & **Peng T. Khaw**, London, UK

16:00 - 16:15	New strabismus techniques	**Saurabh Jain**, London, UK
16:15 - 16:30	Animal Vision	**Jeroen Klevering**, Nijmegen, NL
16:30 - 16:45	Management of eyelid trauma	**Cornelius René**, Cambridge, UK
16:45 - 17:00	Surgery for sub-macular haemorrhages	**Theo Potamitis**, Limassol, Cyprus
17:00 - 17:15	Optic nerve decompression	**Sachin Salvi**, Sheffield, UK

19:00 **RHODES HOUSE: OOC Gala Dinner** *(pre-booked tickets only)*

Drinks from 19:00

Called to dinner promptly at 20:00

Dress: Black tie

WEDNESDAY 8th JULY 2026

09:15 - 10:45	**PUSHING THE FRONTIERS: EMERGING STRATEGIES FOR EYE HEALTH**	
	Chairs: **Pearse Keane**, London, UK & **A. Lola Solebo**, London, UK	
09:15 - 09:30	Technology and medics	**Damien Yeo**, Liverpool, UK
09:30 - 09:45	Robotic retinal surgery	**Jasmina Kapetanovic**, Oxford, UK
09:45 - 10:00	The management of hypotony	**Harry Petrushkin**, London, UK
10:00 - 10:15	The use of cell-free DNA in the diagnosis of retinoblastoma	**Amy Gerrish**, Birmingham, UK
10:15 - 10:30	Oculomics	**Pearse Keane**, London, UK
10:30 - 10:45	Discussion	
10:45 - 11:15	***Refreshments, Posters and Exhibition***	

11:15 - 12:35	**INTERESTING CASES**	
	Chair: **Mandeep S. Sagoo**, London, UK	
11:15 - 11:35	The 'Anguilla' sign	**Kanmin Xue**, Oxford, UK
11:35 - 11:55	Destination Known! How to get there remained a mystery	**Gerard Reid**, Belfast, UK
11:55 - 12:15	Disc swelling - follow the money	**James D. Benzimra**, Exeter, UK
12:15 - 12:35	Phenotypic expansion: a decade-long journey	**Richard Allen**, Houston, USA

12:35- 12:45	**PRIZES**
12:45 - 14:15	***Lunch, Posters and Exhibition***

14:15 - 15:30	**SYSTEMIC DISORDERS AND THE EYE**	
	Chairs: **Erika Damato**, Cambridge, UK & **Sarah Coupland**, Liverpool, UK	
14:15 - 14:30	Orbital inflammation and management	**Richard Allen**, Houston, USA
14:30 - 14:45	Radiation and the eye	**Alexandre Matet**, Paris, France
14:45 - 15:00	RA and the eye	**Erika Damato**, Cambridge, UK
15:00 - 15:15	Allergies and the eye	**Nick Makwana**, Birmingham, UK
15:15 - 15:30	Discussion	

15:30 - 15:45	**MASTER'S CLOSING COMMENTS & HANDOVER TO THE NEXT MASTER**

Posters - Ground Floor. E-posters available on the OOC website.

KEY: Type - *DP* = Digital Poster only. CR = Clinical Research, LR = Laboratory Research

Abstracts and Posters

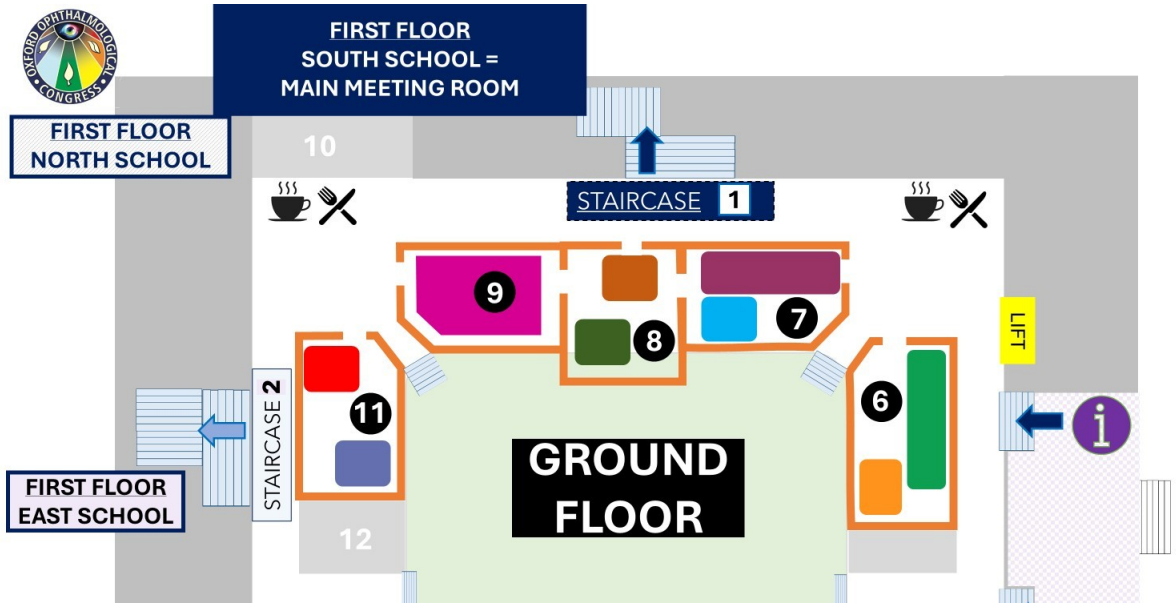
FULL ABSTRACT LIST

Abstract posters

Posters in Ground Floor Rooms: **6**, **7**, **8**, **9, 11**.

E-posters available on the OOC **website**. https://www.ooc.uk.com/posters or via QR code

CORNEA & CATARACT	**EMERGENCY EYE CARE**	**GLAUCOMA**
ABSTRACTS: 1–21	ABSTRACTS: 22–31	ABSTRACTS: 32–40
ROOM 6	ROOM 6	ROOM 7
INHERITED RETINAL DISEASE	**LIDS, LACRIMAL & ORBIT**	**MEDICAL RETINA (INC. UVEITIS)**
ABSTRACTS: 41–45	ABSTRACTS: 46–51	ABSTRACTS: 52–83
ROOM 11	ROOM 8	ROOM 9
OCULAR ONCOLOGY & PATHOLOGY	**PAEDIATRIC, STRABISMUS & NEURO-OPHTHALMOLOGY**	**SURGICAL RETINA**
ABSTRACTS: 84–89	ABSTRACTS: 90–108	ABSTRACTS: 110–125
ROOM 8	ROOM 11	ROOM 7



Abstracts and Posters

CORNEA & CATARACT

1	**RAPID FIRE** Randomised Controlled Trial of Topical Combination Therapy Chlorhexidine 0.2% and Natamycin 5% Versus Topical Natamycin 5% Alone for Fungal Keratitis in East Africa	**Jeremy Hoffman**: London, UK. Moshi, Tanzania.	CR
2	Modelling Aniridia-related Keratopathy (ARK) in a 3D RAFT-TE Co-culture of Patient-Specific Stromal Cells and Healthy Limbal Epithelial Stem Cells	**Abigail Kaye**: London, UK.	LR
5	Cataract Surgery Outcomes in Nonagenarians	**Anish Malik**: Maidstone, UK.	CR
6	10 Year Case Series of Anterior Chamber lens Implantation Outcomes	**Chloe Hum**: Cambridge, UK.	CR
9	Patient-Reported Outcomes From DREAMM-7 and DREAMM-8 Using the EQ-5D-3L, Patient Global Impression of Severity, and Patient Global Impression of Change	**Nilou Williams**: London, UK.	CR
10	A Novel Zebrafish Larvae Model and Injury Platform to Investigate Innate Immune Responses in Microbial Keratitis	**Kelvin K.W. Cheng**: Edinburgh, UK.	CR
12	Assessment of Refractive Outcomes in eyes that Underwent Intraocular Lens Implantation in the Posterior Chamber but not "In-The-Capsular Bag": A Comparative Retrospective Study	**Nasser Balbaid**: Salford, UK.	CR
14	PI-Less DMEK: Outcomes from 151 Eyes at a UK Tertiary Centre	**Rhea Suribhatla**: Bristol, UK.	CR
15	Long-term Outcomes of Combined Phacoemulsification and Intravitreal Dexamethasone Implant in Diabetic Macular Oedema	**Saleh Sahbi**: London, UK.	CR
16	Do Different Organisms Dominate at Different Ages? An Age-Stratified Analysis of Microbial Keratitis	**Shi Ian Soh**: Southampton, UK.	CR
20	Assessing the Impact of COVID-19 on Elective Cataract Surgery at District General Hospitals in South Wales	**Aarij Elahi**: Wirral, UK.	CR *DP*
21	Evaluating the Necessity of Routine Postoperative Topical Antibiotic Prophylaxis After Cataract Phacoemulsification Surgery: A Retrospective Audit Cohort	**Mahmoud Eissa**: Dumfries, UK.	CR *DP*
	WITHDRAWN 3, 4, 7, 8, 11, 13, 17, 18, 19		

Abstracts and Posters

EMERGENCY EYE CARE	**22**	A Nationwide Initiative Empowering 868 Medical Students Across the UK on Tackling Ophthalmic Emergencies	**Ayesha Karimi**: Brighton, UK.	CR
	23	A Retrospective Analysis of Ophthalmology Triage Accuracy: Comparing the Performance of Ophthalmologists, Specialist Nurses, Staff Nurses, and an AI Triage System	**Christopher Stewart**: Swansea, UK.	CR
	24	Triage Accuracy for Ophthalmic Emergencies Among non-Ophthalmic Trainees	**Jeng Chun Kwek**: Stockton-on-Tees, UK.	CR
	25	Improving Confidence of Emergency Department Doctors in the use of Direct Ophthalmoscopy and Slit-Lamp Biomicroscopy for eye Examinations: An Audit	**Mohammed Al-Roubaie**: London, UK.	CR
	26	Recurrent Orbital Abscesses in an Immunocompromised Patient	**Ayesha Karimi**: Brighton, UK.	CR *DP*
	27	An 8 Year old with Severe Sight Impairment Following a fall from a Kick Scooter	**Ayesha Karimi**: Brighton, UK.	CR *DP*
	28	An IOP of 98 mmHg	**Ayesha Karimi**: Brighton, UK.	CR *DP*
	29	Three Suspect Choroidal Melanomas Cases in Consecutive Weekends on-call	**Ayesha Karimi**: Brighton, UK.	CR *DP*
	31	Designing a Digital Wayfinding Prototype for a Retained Estate Ophthalmology Centre	**Albert Chang**: Birmingham, UK.	CR *DP*
		WITHDRAWN 30		
GLAUCOMA	**32**	**RAPID FIRE** Improving the Molecular Diagnostic Rate for Developmental Glaucoma in the 100,000 Genomes Project	**Nicky Cronbach**: London, UK.	CR
	33	Raised Intraocular Pressure in Iris Melanoma: Risk Factors and Management in a Tertiary Ocular Oncology Service	**Abdul Rahim**: Hull, UK.	CR
	35	A Kirigami Microshunt Implanted in the Suprachoroidal Space is Safe, Biocompatible and Effective	**Jared Ching**: Singapore. Oxford, UK.	LR
	36	Early Outcomes of Excimer Laser Trabeculostomy Combined with Phacoemulsification	**Naeem Iqbal**: Birmingham, UK.	CR
	37	Efficacy and Safety of iStent vs KDB Goniotomy + Phacoemulsification over 5 Years	**Rohini Yardy**: Maidstone, UK.	CR
	38	Intraocular Pressure Measurement one-Month Post-SLT in the Virtual Glaucoma Clinics	**Tu Xuong Michelle Ly**: Wolverhampton, UK.	CR
	39	Red eye and Proptosis with low Intraocular Pressure After Trabeculectomy: A Diagnostic Pitfall	**Mihai Bica**: Oxford, UK.	CR *DP*
	40	Ghost Cell Glaucoma Secondary to Proliferative Diabetic Retinopathy: A Case Report	**Aarij Elahi**: Wirral, UK.	CR *DP*

Abstracts and Posters

INHERITED RETINAL DISEASE	**41**	**RAPID FIRE** Automated AI-Based Coregistration Platform for Microperimetry and Optical Coherence Tomography Enables Structure-Function Analysis in Retinal Disease	**Vasil Kostin**: Oxford, UK.	CR
	42	Handheld Electroretinography Enables Rapid Diagnosis of Melanoma-Associated Retinopathy	**Aysha Adil**: London, UK.	CR
	43	Genetic Diagnosis and Socioeconomic Disparities in Inherited Retinal Disease: A West Midlands Cohort Study	**Benjamin Ng**: Birmingham, UK. Oxford, UK.	CR
	44	OCT and Autofluorescence Phenotypic Features in Autosomal Dominant RHO Associated Retinitis Pigmentosa Variants	**Christina Karakosta**: Oxford, UK.	CR
	45	Chorioretinal Atrophy (CRA) Following Subretinal Voretigene Neparvovec (VN) in RPE65 Retinal Dystrophy: Is CRA a Misnomer?	**Wonyoung Moon**: Oxford, UK.	CR
LIDS, LACRIMAL & ORBIT	**46**	Benchmarking General-Purpose AI Models for Periorbital Segmentation and MRD1 Measurement	**Faiq Khan**: Swansea, UK.	CR
	47	From Inflammation to Fibrosis: Immune and Cellular Programs in Thyroid Eye Disease	**Anne Xuan-Lan Nguyen**: Oxford, UK. Toronto, Canada.	LR
	48	Challenging the Punctoplasty Paradigm: A First Systematic Review and Meta-Analysis of Lacrimal Stenting Versus Punctoplasty	**Zhi Heng Henry Lin**: Colchester, UK.	CR
	49	When Inflammation Isn't Benign: Secretory Carcinoma of the Lacrimal Gland Masquerading as an Inflammatory Lesion	**Mohammad Alkhlaifat**: Luton, UK	CR *DP*
	50	Colorectal Carcinoma Presenting With Orbital Metastasis to the Greater wing of the Sphenoid Mimicking Orbital Cellulitis	**Iman Daoud**: Leicester, UK.	CR *DP*
		Withdrawn 51		
MEDICAL RETINA (INC. UVEITIS)	**52**	**RAPID FIRE** Four-Year Outcomes of Faricimab in nAMD: Safety and Tolerability Results from the AVONELLE-X Long-Term Extension Trial	**S. James Talks**: Newcastle upon Tyne, UK.	CR
	53	**RAPID FIRE** Two-Year Effectiveness, Durability and Safety of Faricimab in Eyes with DMO: Results from the UK FARWIDE-DMO Study	**Christine Kiire**: Oxford, UK.	CR
	54	**RAPID FIRE** Metagenomics for Ocular Inflammation - Initial Insights and Results from a Single-Site UK Study	**Daniyal Ansari**: Maidstone, UK.	CR
	55	**RAPID FIRE** Diabetic Retinopathy Screening Outcomes After age 80	**Arya Ghatge**: Gloucester, UK.	CR

Abstracts and Posters

MEDICAL RETINA (INC. UVEITIS)

56	Stability of Adult Human Retinal Cell Markers Across Single-Cell Studies: Clinical Implications for Retinal Disease Research	**Ameer Khamise**: Oxford, UK.	LR
57	Association of Reticular Pseudodrusen Burden and Dark Adaptation in non-Advanced age-Related Macular Degeneration: A Cross-Sectional and Longitudinal Study	**Ariel Yuhan Ong**: London, UK. Oxford, UK.	CR
59	Developing a Scalable Pipeline for data Extraction from Clinical Letters Through Resource-Efficient Prompt Engineering	**Ariel Yuhan Ong**: London, UK.	LR
60	Using Stimulated Whole Blood Analysis to Predict Treatment Responses in Birdshot Chorioretinopathy	**Bruno Charbit**: London, UK.	LR
61	The Diagnostic Accuracy of Diabetic Retinopathy Screening Using Hand-Held Retinal Imaging Devices in Real-World Settings: A Systematic Review and Meta-Analysis	**Charith Mayadunne**: Cambridge, UK.	CR
62	Drusen Volume Change as Clinical Outcome Assessment in Malattia Leventinese / Doyne Honeycomb Retinal Dystrophy: A Two-Year Natural History Study	**Clara Ehrenzeller**: Oxford, UK.	CR
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5	Cataract Surgery Outcomes in Nonagenarians	**Anish Malik**: Ophthalmology, Maidstone and Tunbridge Wells NHS Trust, Maidstone, UK.	CR
6	10 Year Case Series of Anterior Chamber lens Implantation Outcomes	**Chloe Hum**: School of Clinical Medicine, University of Cambridge, Cambridge, UK.	CR
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12	Assessment of Refractive Outcomes in Eyes that Underwent Intraocular Lens Implantation in the Posterior Chamber but not "In-The-Capsular Bag": A Comparative Retrospective Study	**Nasser Balbaid**: Salford Royal Foundation Trust, Salford, UK.	CR
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ABSTRACT MENU

1 Randomised Controlled Trial of Topical Combination Therapy Chlorhexidine 0.2% and Natamycin 5% Versus Topical Natamycin 5% Alone for Fungal Keratitis in East Africa

Jeremy Hoffman[1, 2]
Simon Arunga[1,3], Einoti Matayan[2], Abel Ebong[3], Francis Orishaba[3], William Makupa[2], Muna Elisante[2], Reena Yadav[4], Sandip Das Sanyam[4], Tara Mtuy[1,2], David Macleod[1], Astrid Leck[1], Victor H Hu[1], Matthew J Burton[1].
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Introduction: Outcomes in filamentous fungal keratitis remain poor despite natamycin 5%, and the role of adjunctive chlorhexidine is uncertain, warranting a definitive randomised trial.
Methods: Multicentre randomised controlled trial conducted in Tanzania and Uganda. Participants with smear- or confocal microscopy-positive filamentous fungal keratitis were randomised to natamycin monotherapy or natamycin plus chlorhexidine. The primary outcome was 90-day best spectacle-corrected visual acuity (BSCVA, logMAR), analysed adjusting for baseline vision and excluding mixed infections. Secondary outcomes included corneal perforation, time to epithelial healing, and safety. Analyses were by intention-to-treat with robust variance estimation.
Results: 246 participants contributed to the primary analysis. Adjusted 90-day BSCVA differed significantly between the two treatment arms (mean difference −0.16 logMAR; 95% CI −0.31 to −0.01; p=0.036), corresponding to an improvement of more than 1.5 ETDRS lines in Arm B. Definite corneal perforation occurred in 32/122 (26.0%) eyes in Arm A versus 14/120 (11.7%) in Arm B (Fisher's exact p=0.005; OR≈0.37). Time to epithelial healing was faster in Arm B (HR≈1.40, p≈0.030). Baseline disease severity was the strongest predictor of outcome across models. Adverse events were uncommon (5/244, 2.0%) and similar between groups.
Significance: Clinically and statistically significant differences were observed between treatment strategies. Direction of effect will be confirmed after unmasking.
Masked Analysis Statement: Analyses were completed with arms coded as A and B according to the prespecified plan. Treatment identities remain concealed and will be revealed only after formal unmasking in accordance with the protocol. Fully interpreted results will be presented at the meeting.

***Rapid-Fire**. Clinical Research*

2 Modelling Aniridia-related Keratopathy (ARK) in a 3D RAFT-TE Co-culture of Patient-Specific Stromal Cells and Healthy Limbal Epithelial Stem Cells

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Introduction: Aniridia-related keratopathy (ARK) is driven by limbal epithelial stem cell dysfunction, but stromal contributions are poorly defined. We developed a biomimetic 3D model using RAFT tissue equivalents (RAFT-TE) to test how aniridic stromal cells modulates healthy limbal epithelial stem cells (LESCs).
Methods: Stromal cells from human normal donor and congenital aniridia corneas (Moorfields Eye Hospital) were expanded at the UCL Institute of Ophthalmology in corneal stromal stem cell medium, differentiated towards keratocytes, embedded within collagen RAFT-TE, then cultured in epithelial medium with or without indirect co-culture with healthy donor LESCs. Viability and morphology were assessed; qPCR and immunostaining measured keratocyte differentiation, fibrosis/myofibroblast activation, matrix remodelling (MMPs), proliferation, and epithelial stemness/differentiation markers (p63, CK3).
Results: In 2D keratocyte-differentiating conditions, normal stromal cells reduced fibroblastic and MMP transcripts, whereas aniridic samples showed marked donor-to-donor heterogeneity without a consistent pattern by PAX6 genotype class. RAFT-TE maintained viability of most stromal cultures, but several aniridic donors showed reduced survival. With LESC co-culture, normal stroma showed reduced proliferation/remodelling markers and consistently supported a stratified epithelium with a p63-positive basal layer and CK3-positive suprabasal cells, whereas aniridic stroma variably modulated these readouts and only one aniridic donor supported CK3 expression.
Significance: RAFT-TE provides a functional 3D platform for modelling ARK, revealing pronounced donor-specific stromal pathology and altered stromal-LESC crosstalk that may need targeting alongside epithelial approaches.

Poster, Laboratory Research

5 Cataract Surgery Outcomes in Nonagenarians

Anish Malik[1]
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Purpose: Surgical advancements and increased life expectancy have led to more individuals aged 90 or older undergoing cataract surgery. However, there remains a paucity of published evidence regarding surgical outcomes in this demographic. This study aims to evaluate whether cataract surgery confers a significant benefit to nonagenarian patients.
Setting: Single-centre study within Maidstone and Tunbridge Wells NHS Trust ophthalmology department.
Methods: This retrospective case series reviewed nonagenarian cataract procedures between January 2023 and August 2025. The primary endpoints were the difference between pre- and post-operation best-corrected visual acuity (BCVA) and the proportion of patients achieving BCVA ≤ 0.3 logMAR. Secondary endpoints included incidence of intraoperative and postoperative complications. Demographic data comprised patient age, sex and relevant ocular and systemic conditions.
Results: 387 cataract surgeries were performed in 267 patients, with 229 cases eligible for visual outcome analysis. Mean BCVA improved from 0.80 to 0.45 logMAR, with those achieving <0.3 logMAR improving from 12% to 47%. Ocular comorbidities included age-related macular degeneration (31%), glaucoma (9.3%), and CRVO (2.8%). Systemic comorbidities included hypertension (57%), type 2 diabetes mellitus (19%), chronic kidney disease (15%), and prior stroke (11%). Intraoperative complications were rare: posterior capsular rupture (2.0%), iris prolapse (1.6%), anterior capsular tear (0.6%), and zonular dialysis (0.3%). Postoperative complications included posterior capsular opacification (13%), cystoid macular oedema (3.7%) and endophthalmitis (1.1%).
Conclusions: Despite presence of multiple comorbidities, cataract surgery in nonagenarians consistently resulted in significant improvements in visual acuity. These findings support phacoemulsification in enhancing quality of life for this patient population.

Poster, Clinical Research

6 10 Year Case Series of Anterior Chamber lens Implantation Outcomes

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Introduction: To investigate outcomes and complication rates in eyes undergoing anterior chamber intraocular lens (ACIOL) insertion.
Methods: Single-centre, retrospective case series including all patients receiving ACIOL implantation between January 2015 to June 2025. Patients were identified using the electronic patient record. Pre-operative ocular comorbidities, post-operative complications and post-operative visual acuities were recorded.
Results: 101 patients were identified. Mean follow up time was 28 months (range 1 month to 142 months). 10 patients had follow-up at external hospitals and notes were unavailable. Where available, mean best corrected visual acuity (BCVA) before the surgery including ACIOL implantation was 0.91 LogMAR (range 0.10 to PL) and mean BCVA after ACIOL implantation was 0.48 (range 0 to CF).
Causes of aphakia were subluxed/dislocated IOL (39/100), complicated cataracts surgery (49/100), subluxed/dislocated crystalline lens (11/100) and previous paediatric cataract surgery (1/100). Comorbidities were common, including previous retinal detachment repair, retinitis pigmentosa, glaucoma, macular hole, uveitis and Marfan syndrome, and often limited the final visual acuity.
Post-operative complications included cystoid macular oedema (13/90), ocular hypertension (2/90), retinal detachment (2/90), minor ACIOL repositioning (2/90), ACIOL exchange (1/90) and postoperative anterior uveitis (1/90). Of the 13 patients developing cystoid macular oedema, 10 resolved and 3 were chronic.
Discussion: ACIOL remains a good option for managing aphakia, particularly as it is relatively simple to learn, teach and perform. The complications are comparable to other secondary lens techniques, with no patients having corneal decompensation in this series, and many achieving excellent visual acuity.

Poster, Clinical Research

9 Patient-Reported Outcomes From DREAMM-7 and DREAMM-8 Using the EQ-5D-3L, Patient Global Impression of Severity, and Patient Global Impression of Change

Nilou Williams[1]

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Introduction: In Phase-3 DREAMM-7/-8 (NCT04246047/NCT04484623), belantamab mafodotin (belamaf)-regimens showed improvements versus comparators in progression-free survival (DREAMM-7/-8) and overall survival (DREAMM-7). Patient-reported outcomes (PROs) on EORTC QLQ-C30 global health status/quality-of-life (QOL) remained similar between treatment arms overtime (DREAMM-7/-8). Here, we report additional PRO findings using EQ-5D-3L Visual Analogue Scale (VAS), Patient Global Impression of Severity (PGIS), and Patient Global Impression of Change (PGIC).

Methods: All PRO measures were assessed at baseline (day 1, cycle 1), throughout treatment (Q6W in DREAMM-7; Q8W [EQ-5D-3L] and Q4W [PGIS and PGIC] in DREAMM-8), at the end-of-treatment visit, and during follow-up.

Results: EQ-5D-3L VAS: Overall QOL did not differ between treatment arms in DREAMM-7/-8. Median time to first deterioration in VAS: DREAMM-7: 9.5 months (belamaf+bortezomib+dexamethasone [BVd]) and 13.7 months (daratumumab-Vd [DVd]) (HR, 1.08); DREAMM-8: There was a delay in belamaf+pomalidomide+dexamethasone (BPd) (17.7 months) vs pomalidomide-Vd (PVd) (9.3 months) arm (HR, 0.84). PGIS: Higher proportion of patients in BVd and BPd arms reported ≥1-point improvements in symptom severity scores at nearly every assessment during treatment compared with patients in DVd and PVd arms, respectively. PGIC scores: Similar between treatment arms across timepoints (DREAMM -7/-8).

Conclusions: No difference was observed between belamaf-based regimens and their comparators in overall QOL on EQ-5D-3L VAS or PGIC. However, on PGIS, symptom burden was consistently rated as less-severe in BVd/BPd arms versus DVd/PVd arms. Together with previously demonstrated efficacy and manageable safety profiles of BVd and BPd, these PRO findings further support overall benefit of belamaf-based regimens in multiple myeloma at first relapse.

Poster, Clinical research

10 A Novel Zebrafish Larvae Model and Injury Platform to Investigate Innate Immune Responses in Microbial Keratitis

Kelvin K.W. Cheng[1,2]

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Introduction: Microbial keratitis (MK) is the fifth leading cause of blindness globally, yet therapeutic strategies targeting excessive inflammation remain limited. Although corticosteroids are sometimes employed, their use is constrained by significant adverse effects, including cataract formation, elevated intraocular pressure, and exacerbation of fungal or Acanthamoeba infections. The 2024 UK Clinical Eye Research Strategy identified MK as a research priority, emphasising the urgent need for improved experimental models to better understand disease mechanisms and identify novel therapeutic targets. We therefore established a zebrafish larvae model of MK and developed a custom zebrafish injury platform (ZIP) to enable precise, reproducible corneal injury and high-resolution in vivo imaging without agarose embedding.

Methods: Three-day post-fertilisation transgenic zebrafish larvae expressing fluorescent neutrophils, macrophages, and basal epithelial cells (Tg(LysC:mTurquoise; mfap4:tdTomato-CAAX; K19:GFP)) were utilised. ZIP was engineered according to larval anatomical dimensions to ensure stable horizontal positioning during injury and imaging. Following mechanical corneal abrasion, larvae were exposed to established chemoattractants (lipopolysaccharide and leukotriene B4) or live bacteria. Immune cell recruitment and behaviour were assessed using spinning disc confocal microscopy and electron microscopy.

Results: Corneal injury triggered rapid immune cell accumulation, which was further amplified by pro-inflammatory mediators. Electron microscopy confirmed epithelial disruption and indicated a potential role for neutrophil extracellular traps. Live bacterial infection induced sustained neutrophil and macrophage recruitment, with time-lapse imaging demonstrating increased neutrophil velocity and migratory displacement.

Discussion/Significance: This in vivo platform enables real-time mechanistic interrogation of immune cell dynamics during MK. It provides a scalable system for rapid, high-throughput screening of novel immunomodulators aimed at controlling inflammation and reducing reliance on corticosteroids in this sight-threatening disease.

Poster, Clinical Research

12 Assessment of Refractive Outcomes in Eyes That Underwent Intraocular Lens Implantation in the Posterior Chamber but not "In-The-Capsular Bag": A Comparative Retrospective Study

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Purpose: The purpose of this study was to report visual and refractive outcomes in eyes that underwent intraocular lens (IOL) fixation in the absence of capsular support.
Methods: This was a retrospective chart review of cases undergoing posterior chamber iris-fixated IOL (IFIOL) and scleral-fixated IOL (SFIOL) implants from June 2014 to March 2020 with more than 3 months of follow-up and having a preoperative best-corrected visual acuity of 20/80 and more.
Results: Records of 120 eyes of 112 patients were reviewed. The mean age of the patients was 46.9±22.3 (14.4–98.0) years, and 62% (n=70) of participants were male. Most of the eyes (102: 85%) were aphakic at the time of surgery. The mean follow-up was 22.95±17.1 months. The efficacy index of sutured IFIOL and glued SFIOL outperformed sutured SFIOL at 3 months and final visits postoperatively ($p<0.001$). All techniques studied here resulted in a similar safety index at 3 months ($p=0.4$). The mean predictive error (postoperative spherical equivalent refraction minus intended target refraction) was +0.07±1.5 D and −0.12±1.4 D at 3 months and the final postoperative visit, respectively.
Conclusion: The studied techniques have relatively good visual and refractive outcomes in this series. In addition, techniques involving a small corneal incision with foldable IOL fixation to the iris or scleral tissue have superior efficacy and safety indices compared to creating large corneoscleral wounds for rigid IOL fixation techniques.

Poster, Clinical Research

14 PI-Less DMEK: Outcomes from 151 Eyes at a UK Tertiary Centre

Rhea Suribhatla[1]
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Introduction: Tamponades post-Descemet's membrane endothelial keratoplasty (DMEK) can raise intraocular pressure (IOP) through pupillary block. Preoperative peripheral iridotomies (PIs) reduce this risk, but can cause inflammation, bleeding, and photophobia. Data on PI-less DMEK is limited.
Methods: We retrospectively reviewed 151 eyes which underwent PI-less DMEK between September 2021 and August 2023 at Bristol Eye Hospital. Data was collected from electronic medical records and analysed using unpaired, two-tailed t-tests and Chi-squared/Fisher's tests ($p<0.05$ significant).
Results: 151 eyes from 147 patients underwent PI-less DMEKs (53.7% female; mean 73.4±12.1 years; 56.3% phaco-DMEK; 61.6% Fuchs' endothelial dystrophy). Consultants performed 53.0% of cases and fellows 47.0%. At 2 hours postoperatively, 45.0% required IOP-lowering intervention, most commonly air release. Mean IOP normalised within one week, with no pupillary block or sustained IOP elevation. At 12 months, 76.9% achieved improved visual acuity (mean logMAR gain 0.40±0.33). Postoperative rebubble rate was 33.8%. Rates were slightly higher in fellow versus consultant cases (38.0% and 30.0% respectively, $p=0.30$), and in DMEK-only versus phaco-DMEK (40.0% and 25.8%, respectively, $p=0.07$). There was no significant difference in frequency of air release, postoperative IOP or mean visual acuity in eyes which did or did not undergo rebubbling.
Significance: PI-less DMEK without routine postoperative release is safe and cost-efficient. Larger case-control studies are required to compare DMEK and phaco-DMEK outcomes with and without prophylactic PI.

Poster, Clinical Research

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

Saleh Sahbi[1]

Imran Karim Janmohamed[2], Havena Harahn[2], Maaz Khan[2], Barnaby Carr[2], Hamza Nawaz[3], Haasher Monib[1], Goncalo Almeida[2].

1] GKT School of Medical Education, King's College London, London, UK. 2] Maidstone General Hospital, Maidstone, UK. 3] Hammersmith Hospital, London, UK.

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 (−60.1 µm, $p<0.001$), with statistically significant reductions persisting through 3 years. Seventy-six 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.

Poster, Clinical Research

16 Do Different Organisms Dominate at Different Ages? An Age-Stratified Analysis of Microbial Keratitis

Shi Ian Soh

Mohamed Ahmed, Kordo Saeed, Dave Browning, David Anderson, Aris Konstantopoulos. Parwez Hossain, Harinderjeet Sandhu.

Southampton Eye Unit, University Hospital Southampton NHS Foundation Trust, Southampton, UK.

Introduction: Microbial keratitis affects all age groups, yet the influence of patient age on causative organism profiles remains poorly characterised. Understanding age-dependent patterns may inform empirical treatment decisions when clinical suspicion guides initial management before culture results are available.

Methods: All culture-positive corneal scrapes from Southampton Eye Unit (January 2014 - December 2023) were reviewed. Patients were stratified into eight age bands. Chi-square test assessed organism category distribution across age groups; Kruskal-Wallis test with pairwise Mann-Whitney U comparisons examined age differences between categories.

Results: Of 512 culture-positive isolates (mean age 53.2, SD 20.7 years; 49.0% female), organism distribution varied significantly across age groups ($X^2=34.23$; $p=0.034$). Acanthamoeba keratitis affected significantly younger patients (median 34 years, IQR 25–53) than Gram-positive (median 53), Gram-negative (median 54), and fungal keratitis (median 56) (Kruskal-Wallis $H=10.74$; $p=0.013$; all pairwise $p<0.005$). Acanthamoeba comprised 12.3% of isolates in the 20–29 age group versus 0% in those aged 80+. Gram-negative organisms, particularly Pseudomonas, were most prevalent in the 40–49 group (40.3% of isolates). Staphylococcus aureus was more prominent in older patients (21.0% in 70–79 vs 4.8% in 30–39), whilst Moraxella tended to affect older patients (median age 63).

Discussion: Patient age significantly influences the microbial keratitis pathogen spectrum. Acanthamoeba predominance in younger patients likely reflects contact lens use patterns, whilst increasing S. aureus with age may indicate changing ocular surface vulnerability. These age-dependent profiles have implications for empirical treatment selection.

Poster, Clinical research

20 Assessing the Impact of COVID-19 on Elective Cataract Surgery at District General Hospitals in South Wales

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Introduction: Cataract is a leading cause of visual impairment in older adults and is effectively treated with surgery. Prolonged waiting times are associated with worsening vision and increased falls risk. The COVID-19 pandemic disrupted elective services. This study evaluated its impact on cataract surgery waiting times and visual outcomes at district hospitals in South Wales.
Methods: A retrospective service evaluation was conducted at Royal Glamorgan Hospital and Prince Charles Hospital. Data were extracted from Medisoft and Clinical WorkStation. Two cohorts were analysed: pre-lockdown (1 April 2018 - 1 April 2020; n=2614) and during/post-lockdown (2 April 2020 - 2 April 2022; n=582). Outcomes included pre-operative visual acuity using LogMAR and referral-to-treatment time (RTT). Comparative statistical analysis was performed.
Results: Surgical volume decreased by 71.4% post-lockdown. Mean pre-operative LogMAR worsened from 0.7 to 1.0. Severe visual impairment (LogMAR >1.2) increased from 14.0% to 32.2%. No significant sex differences were observed. Waiting times rose substantially: for visual acuity 0.5, RTT increased from 305 to 499.8 days; for 1.0, from 268 to 648.8 days. Routine referrals were most affected, with post-lockdown patients waiting on average 896 days longer than pre-lockdown.
Discussion: COVID-19 significantly reduced cataract surgical capacity, prolonged waiting times, and resulted in poorer vision at surgery. With a median age of 75 years, delays likely increased functional decline and falls risk. Targeted recovery strategies are required to reduce backlog and restore timely access to elective cataract services.

e-Poster only, Clinical research

21 Evaluating the Necessity of Routine Postoperative Topical Antibiotic Prophylaxis After Cataract Phacoemulsification Surgery: A Retrospective Audit Cohort

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Background: Routine prescription of postoperative topical antibiotic drops following uncomplicated cataract phacoemulsification surgery remains common practice despite growing evidence questioning its clinical benefit in the presence of established pre and intra-operative infection preventive measures. In the context of increasing surgical volumes and financial pressures on the National Health Service (NHS), reassessment of such practices is needed.
Methods: A retrospective cohort study was conducted at Mountainhall Treatment Centre, Dumfries, UK, comparing outcomes before and after cessation of routine postoperative topical chloramphenicol following cataract phacoemulsification. Patients undergoing surgery between January - December 2024 (routine antibiotics) were compared with those treated between January - December 2025 (no routine antibiotics). Primary outcomes included postoperative infection rates. While secondary outcomes included a cost - benefit analysis evaluating antibiotic utilization and expenditure.
Results: A total of 1,322 cataract surgeries were performed in 2024 and 1,489 in 2025, representing a 12.6% increase in surgical activity. Demographics were similar between cohorts. A total of 1,322 cataract surgeries were performed in 2024 and 1,489 in 2025, representing a 12.6% increase in surgical activity. No postoperative infections were identified in either group, corresponding to upper 95% confidence limits of 0.23% in 2024 and 0.20% in 2025 showing no evidence of increased infection risk following cessation of drops and it was associated with a 61% reduction in antibiotic bottles issued, resulting in measurable cost savings despite the low unit cost of the medication.
Conclusions: Cessation of routine postoperative topical antibiotic prophylaxis following uncomplicated cataract surgery did not increase postoperative infection rates and was associated with a substantial reduction in antibiotic use. These findings support safe de-implementation of routine postoperative antibiotics, reinforcing antimicrobial stewardship and contributing to sustainable cost savings within the NHS.

e-Poster only, Clinical research

POSTER ABSTRACTS

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22	A Nationwide Initiative Empowering 868 Medical Students Across the UK on Tackling Ophthalmic Emergencies	**Ayesha Karimi**: Sussex Eye Hospital, Brighton, UK.	CR
23	A Retrospective Analysis of Ophthalmology Triage Accuracy: Comparing the Performance of Ophthalmologists, Specialist Nurses, Staff Nurses, and an AI Triage System	**Christopher Stewart**: Swansea University Health Board, Swansea, UK.	CR
24	Triage Accuracy for Ophthalmic Emergencies Among non-Ophthalmic Trainees	**Jeng Chun Kwek**: University Hospital of North Tees, Stockton-on-Tees, UK.	CR
25	Improving Confidence of Emergency Department Doctors in the use of Direct Ophthalmoscopy and Slit-Lamp Biomicroscopy for eye Examinations: An Audit	**Mohammed Al-Roubaie**: Northwick Park Hospital, London, UK.	CR
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27	An 8 Year old with Severe Sight Impairment Following a fall from a Kick Scooter	**Ayesha Karimi**: Sussex Eye Hospital, Brighton, UK.	CR *DP*
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29	Three Suspect Choroidal Melanomas Cases in Consecutive Weekends on-call	**Ayesha Karimi**: Sussex Eye Hospital, Brighton, UK.	CR *DP*
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31	Designing a Digital Wayfinding Prototype for a Retained Estate Ophthalmology Centre	**Albert Chang**: Birmingham and Midland Eye Centre, Sandwell and West Birmingham NHS Trust, Birmingham.	CR *DP*

22 A Nationwide Initiative Empowering 868 Medical Students Across the UK on Tackling Ophthalmic Emergencies

Ayesha Karimi
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Background: 75% of students consider ophthalmology teaching at their medical school inadequate. With 10% of patients entering a hospital heading to the eye clinic and 6% of all A&E attendances being eye issues, this lack of ophthalmology education is unsustainable. We present an initiative run over two years to educate medical students on the recognition and management of eye conditions.
Methods: The one-day course was created by an ophthalmology registrar and foundation doctor and advertised to all 45 medical schools across the UK. The course ran in 2021 and 2022, attracting a total of 868 delegates altogether.
Results: Students' confidence levels improved across all four aspects of the ophthalmology consultation: history, examination, recognising and managing eye cases ($p<0.05$, Wilcoxon test). There was also a statistically significant improvement on confidence when dealing with all 14 eye conditions covered, especially in nuanced topics like removing corneal foreign bodies and microbial keratitis. Feedback included:

- "better than any ophthalmology teaching I've had to date"
- "course should be mandatory for all medical students and foundation doctors"

Discussion: Non-ophthalmologists often lack confidence with eye cases leading to personal struggles, reduced job satisfaction; delayed treatment; potential vision loss; unnecessary referrals; increased litigation; higher healthcare costs; especially in an aging population. Providing basic ophthalmic knowledge can help prevent sight-threatening consequences and improve job satisfaction. The course was a simple, repeatable, cost-effective method of increasing knowledge and confidence; feedback called for wider teaching for optometrists, orthoptists as well as expanding to a global scale.

Poster, Clinical Research

23 A Retrospective Analysis of Ophthalmology Triage Accuracy: Comparing the Performance of Ophthalmologists, Specialist Nurses, Staff Nurses, and an AI Triage System

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Purpose: To evaluate and compare the efficiency and accuracy of telephone triage of unscheduled eye care in relation to their respective roles (ophthalmologists, specialist nurses, staff nurses, and an AI system).
Methods: In this retrospective study we evaluated 2,581 unscheduled eye care telephone triage forms from Singleton Hospital between 2022 and 2024. The four main data cohorts were ophthalmologists (929 forms), specialist nurses (900 forms), staff nurses (500 forms), and an AI system (ChatGPT-4O), which evaluated 252 clinical details. The primary outcome measures were adherence to 'traffic-light' guidelines, rates of case escalation and de-escalation, and final triage outcome (appointment/advice etc.).
Results: There was no statistical difference in the percentage of adherence to the 'traffic-light' guidelines between the three human groups. Specialist and staff nurses were significantly more likely to escalate a case (7% and 8%, respectively, compared to 4% for ophthalmologists), however, this resulted in no additional out-of-hours work. Ophthalmologists had the highest rate of accurate diagnostics and managed the largest number of triage calls. Both specialist and staff nurses stated they were stressed by the triage process and also that casualty doctors frequently interrupted them while triaging, much less so for ophthalmologists. The AI system showed some promise; however, it needed further refinement.
Conclusion: Although, the different staff roles employed for telephone triage produce comparable patient outcomes, there are significant differences in terms of case escalation, diagnostic accuracy and the impact on the clinic's workflow. The amount of stress both specialist and staff nurses report experiencing with respect to triage and the frequency of interruption by casualty doctors demonstrate a need to optimize the system. The use of AI as a tool for future risk stratification appears promising, however, it will require additional development.

Poster, Clinical Research

24 Triage Accuracy for Ophthalmic Emergencies Among non-Ophthalmic Trainees

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Introduction: Ophthalmic emergencies are time-critical and delays in recognition or referral can result in irreversible visual loss. In the UK, patients with acute eye symptoms are frequently first assessed by non-ophthalmic clinicians. This study evaluated diagnostic accuracy and referral urgency assigned to common ophthalmic emergencies by non-ophthalmic trainees.
Methods: A cross-sectional vignette-based questionnaire was distributed to non-ophthalmic trainees, including Foundation Year 1 (FY1), Foundation Year 2 (FY2), General Practice (GP) trainees and paediatric trainees at a UK teaching hospital. Participants were presented with seven standardised clinical vignettes representing common ophthalmic emergencies and non-urgent presentations, including both adult and paediatric scenarios. For each vignette, respondents selected the most likely diagnosis and appropriate referral urgency. Correct diagnoses and urgency were defined according to national guidelines. Descriptive statistical analysis was performed.
Results: 84 completed the questionnaire. Overall diagnostic accuracy across all vignettes was 58%. Correct referral urgency was assigned in 61% of responses. Vision-threatening conditions such as acute angle-closure glaucoma and central retinal artery occlusion were under-recognised, with correct diagnosis rates of 42% and 39% respectively. Under-triage of time-critical conditions occurred in 31% of responses. Over-referral of non-urgent conditions was also observed, particularly among FY1 trainees.
Significance: This study demonstrates variable recognition and triage of ophthalmic emergencies among non-ophthalmic trainees, with both under- and over-referral patterns identified. These findings highlight the need for targeted ophthalmic education to support early recognition and appropriate referral within emergency eye care pathways.

Poster, Clinical Research

25 Improving Confidence of Emergency Department Doctors in the use of Direct Ophthalmoscopy and Slit-Lamp Biomicroscopy for eye Examinations: An Audit

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Background: Ophthalmic presentations are common in the Emergency Department (ED), yet many junior clinicians have limited training in core eye examination skills. This can delay accurate assessment and appropriate referral.
Aim: To assess ED doctors' baseline confidence in performing direct ophthalmoscopy and slit-lamp biomicroscopy, and to evaluate the impact of a focused practical teaching intervention.
Methods: A single-centre audit was undertaken in November 2022 at Bedford Hospital. Ten ED doctors completed a pre-teaching questionnaire assessing confidence and perceived competence in (1) direct ophthalmoscopy, including visualisation of the optic nerve head, and (2) slit-lamp biomicroscopy for anterior segment assessment. Participants then received a structured, hands-on teaching session covering relevant ocular anatomy, common eye emergencies, and practical technique for both instruments. Post-teaching questionnaires repeated the same measures.
Results: All 10 participants reported improved confidence in performing direct ophthalmoscopy following teaching, with increased self-reported ability to visualise the optic nerve head clearly. Baseline confidence with slit-lamp biomicroscopy was absent: all 10 participants reported no confidence and inability to assess anterior segment structures using the slit lamp prior to training. Following the intervention, all 10 reported increased confidence and improved ability to visualise anterior segment structures with the slit lamp.
Conclusion: A brief, structured, practical teaching session was associated with universal improvement in ED doctors' self-reported confidence in direct ophthalmoscopy and slit-lamp biomicroscopy, with the greatest relative gains in slit-lamp use. Incorporating supervised ophthalmic skills training into ED induction may strengthen early assessment and streamline referral pathways.

Poster, Clinical Research

26 Recurrent Orbital Abscesses in an Immunocompromised Patient

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Case: A man in his 30s with Hyper-IgE syndrome and long-term corticosteroid therapy presented with a three-day history of right facial pain and swelling following a cracked upper molar. He was diagnosed with a buccal space abscess and underwent incision and drainage with extraction of the affected tooth and placement of an intra-oral drain. Intravenous clindamycin was commenced. There was initial improvement, however his condition rapidly deteriorated with worsening right facial swelling, right eye visual loss (hand movements only), a fixed dilated pupil and complete ophthalmoplegia. The left's vision was 6/36 from long-standing amblyopia. His WCC was 40 x 109/L and CRP was over 300 mg/L. CT showed intraconal and extraconal orbital abscesses.
An urgent lateral canthotomy was performed under local anaesthetic for orbital compartment syndrome, followed by EUA and orbital washout later that day. An orbital drain was placed and he was transferred to HDU and commenced on high-dose intravenous vancomycin, ceftriaxone and corticosteroids.
Further abscesses developed around the orbit and masticator muscles with worsening proptosis. Imaging showed restricted diffusion in the posterior globe, showing secondary optic nerve ischaemia. Second and third decompressions were performed jointly with maxillofacial and ophthalmology teams, and antibiotics were escalated to intravenous meropenem.
Cultures grew Streptococcus gallolyticus, Streptococcus constellatus, and Granulicatella adiacens. Visual acuity became NPL. Unfortunately, due to systemic decline, the patient passed away shortly after.
This case highlights the severe morbidity that can occur in immunocompromised patients, and underscores the importance of early recognition, urgent imaging and multidisciplinary collaboration.

e-Poster only, Clinical Research

27 An 8 Year old with Severe Sight Impairment Following a fall from a Kick Scooter

Ayesha Karimi
Christabel Ojukwu, Fatima Khan, Soban Arfat, Max Budasz.
Sussex Eye Hospital, Brighton, UK.

Case: We report the case of an 8-year-old boy who fell from his kick scooter, hitting his occipital region on to a kerb. He was taken to A&E and neuroimaging demonstrated a left-sided subdural haematoma with associated midline shift; and he underwent an urgent surgical evacuation of the haematoma.
He was found to have a significant right incongruent homonymous hemianopia in conjunction with intermittent left exotropia. Central visual acuity remained relatively well preserved with right eye at 6/6 and left eye at 6/12. Due to the extent of visual field loss, he was registered as partially sighted.
Since the injury, he has been wheelchair-dependent and frequently bumps into obstacles in his environment, including car wing mirrors and refuse bins. He has also experienced visual hallucinations confined to the area of visual field loss, consistent with Charles Bonnet syndrome.
He continues to receive multidisciplinary rehabilitation, including physiotherapy and occupational therapy, as well as educational accommodations and visual support at school. The injury and its consequences have placed a significant emotional burden on his mother, who reports reliving the incident frequently and how she was walking towards her son's helmet to place it on him.
This case illustrates an unfortunate presentation of paediatric homonymous hemianopia complicated by Charles Bonnet syndrome following what would normally be perceived as a trivial fall, highlighting the need for protective headwear on any child's vehicle. It also addresses the comprehensive, multidisciplinary management approaches that address the child's as well as the family's medical, rehabilitative and psychosocial needs.

e-Poster only, Clinical Research

28 An IOP of 98 mmHg

Ayesha Karimi
Ishani Rakshit, Max Budasz, Soban Arfat, Fatima Khan.
Sussex Eye Hospital, Brighton, UK.

Case: A male in his 90s with severe learning difficulties was referred by his GP with suspected left eye periorbital cellulitis. Care home staff reported that the patient was in distress with reluctance to open his eye. POH included bilateral cataract surgery in 2022 for left eye phacomorphic glaucoma. PMH included colon cancer under palliative care.
IOP was right 18 and left 98 mmHg. Examination revealed left-sided preseptal cellulitis, proptosis, haemorrhagic chemosis, corneal oedema, flat AC, inferior hyphaema, mid-dilated pupil. The IOL was densely brown-tinted. B-scan revealed a heterogeneous mass in the posterior segment.
Differentials included vitreous haemorrhage; suprachoroidal haemorrhage; choroidal melanoma; choroidal metastasis. He was commenced on IV broad-spectrum antibiotics, Acetazolamide and IOP-lowering drops, steroids, and Atropine. CT confirmed orbital cellulitis and excluded retrobulbar masses or haemorrhage.
Despite resolution of the cellulitis, IOP stayed between 95 to 99.
Following best-interest multi-disciplinary meetings, GA for interventions i.e. cyclodiode were deemed hazardous; and procedures under LA posed challenges to the patient / his eye due to his variable cognitive status and compliance. Drops and high-dose oral opioids maintained his IOP at mid-50s, pain-free.
This case records an extremely high IOP, which has not been previously reported in the literature. It highlights the complexities of managing a painful, blind eye; and underscored the challenges faced by patients with learning difficulties - more advanced disease at assessment, lower screening rates, diagnostic delays, communication insufficiencies and complex management choices. We explore RCOphth and Public Health England guidance on eye care for adults with learning difficulties.

e-Poster only, Clinical Research

29 Three Suspect Choroidal Melanomas Cases in Consecutive Weekends on-call

Ayesha Karimi
Ishani Rakshit, Max Budasz, Soban Arfat, Fatima Khan.
Sussex Eye Hospital, Brighton, UK.

Cases: We report three cases of suspect choroidal melanomas in consecutive weekends on call at a DGH that were referred to a tertiary ocular oncology service.

- Case 1: A 63-year old male presented with left eye flashing lights for six weeks. There was an amelanotic, mushroom-shaped, choroidal lesion measuring 11.7 x 9.7 x 8mm in the inferotemporal quadrant with subretinal fluid and overlying lipofuscin, with low / medium echogenicity on B-scan. MOLES score was 6. This was diagnosed as an amelonatic choroidal melanoma (TNM cT2a, Stage IIa) and he underwent proton beam radiotherapy.
- Case 2: A 30-year old male presented with left eye floaters for four weeks. He had an atypical juxtapapillary, choroidal lesion measuring 4.4 x 4.4 x 3.8mm with very low echogenicity on B-scan. MOLES score was 4. Due to the shallow thickness and imaging characteristics, this lesion was deemed as an indeterminate melanocytic mass. MDT consensus advised monitoring.
- Case 3: A 75-year-old lady presented with right eye floaters and an inferotemporal visual field defect for two months. There was a large, mushroom-shaped, choroidal lesion with enlargement compared to previous fundal photo, subretinal fluid and low to medium echogenicity on B-scan. MOLES score was 8. The patient did not attend her oncology appointment and unfortunately passed away shortly after.

These cases highlight the importance of multimodal imaging for choroidal melanomas. Management considers tumour size, extrascleral extension, imaging characteristics and patient preferences. One case highlighted that urgent treatment may not always be warranted, and long-term surveillance may be more favourable.

e-Poster only, Clinical Research

31 Designing a Digital Wayfinding Prototype for a Retained Estate Ophthalmology Centre

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Introduction: Birmingham and Midland Eye Centre (BMEC) functions as a standalone tertiary ophthalmology unit within a retained NHS estate occupied by other specialties and the Trust pharmacy. The relocation of the main hospital site, ongoing redevelopment and altered routes created navigational challenges, particularly for visually impaired patients. We aimed to develop a proof-of-concept digital wayfinding tool using iterative, low-fidelity design principles to support navigation within this complex environment.
Methods: Using charitable funding, we undertook a clinician-led, user-centred development process involving patients, healthcare assistants, clinicians, and administrative staff familiar with patient pathways. We reviewed limitations in current navigation guidance including inconsistencies in patient appointment letters. A full estate map was used to define spatial relationships and shared access points, designating key clinical areas, entrances, waiting areas, and diagnostic suites as navigational 'nodes'. We used low-fidelity wireframes to model the point-to-point journeys between nodes. Then, iteratively refined by embedding real photographs of landmarks and decision points, to enhance contextual orientation and usability. Users' feedback was implemented at each stage.
Results: The resulting prototype integrates a virtual estate map using node-based navigation logic and real-world photographic cues. The platform enables users to select a start and destination point and receive structured route guidance across shared and specialty-specific areas. The system was designed to remain adaptable to future estate modifications.
Conclusion: This project demonstrates the feasibility of clinician-led, user-centred digital prototyping for wayfinding within a mixed-use retained hospital estate and provides a scalable framework for broader implementation to other evolving hospital sites.

Poster only, Clinical Research

ABSTRACT MENU

POSTER ABSTRACTS

	GLAUCOMA	ABSTRACTS 32–40	
32	**RAPID FIRE** Improving the Molecular Diagnostic Rate for Developmental Glaucoma in the 100,000 Genomes Project	**Nicky Cronbach**: UCL Institute of Ophthalmology, London, UK. Moorfields Eye Hospital, London, UK.	CR
33	Raised Intraocular Pressure in Iris Melanoma: Risk Factors and Management in a Tertiary Ocular Oncology Service	**Abdul Rahim**: Hull University Teaching Hospital, Hull, UK.	CR
34	Withdrawn		
35	A Kirigami Microshunt Implanted in the Suprachoroidal Space is Safe, Biocompatible and Effective	**Jared Ching**: NHG Eye Institute, Department of Ophthalmology, Tan Tock Seng Hospital, Singapore. Department of Engineering Science, University of Oxford, Oxford, UK.	LR
36	Early Outcomes of Excimer Laser Trabeculostomy Combined with Phacoemulsification	**Naeem Iqbal**: Birmingham Midland Eye Centre, Birmingham, UK.	CR
37	Efficacy and Safety of iStent vs KDB Goniotomy + Phacoemulsification over 5 Years	**Rohini Yardy**: Maidstone and Tunbridge Wells NHS Trust, Maidstone, UK.	CR
38	Intraocular Pressure Measurement one-Month Post-SLT in the Virtual Glaucoma Clinics	**Tu Xuong Michelle Ly**: The Royal Wolverhampton NHS Trust, Wolverhampton, UK.	CR
39	Red eye and Proptosis with low Intraocular Pressure After Trabeculectomy: A Diagnostic Pitfall	**Mihai Bica**: Oxford University Hospitals NHS Trust, Oxford, UK.	CR *DP*
40	Ghost Cell Glaucoma Secondary to Proliferative Diabetic Retinopathy: A Case Report	**Aarij Elahi**: Arrowe Park Hospital, Wirral, UK.	CR *DP*

ABSTRACT MENU

32 Improving the Molecular Diagnostic Rate for Developmental Glaucoma in the 100,000 Genomes Project

Nicky Cronbach[1,2]
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Introduction: Paediatric glaucoma accounts for 5% of childhood blindness worldwide, and may be primary or associated with other ocular or systemic conditions. Although pathogenic variants in the CYP1B1 gene account for over 80% of primary congenital glaucoma cases in some populations, in the UK less than a quarter of affected patients receive a genetic diagnosis.
Methods: In this retrospective study we collated the whole genome sequencing data of all patients with developmental glaucoma in the 100,000 Genomes Project, a national genetic study of families with rare diseases, who have not yet received a genetic diagnosis. We re-analysed these cases for potentially pathogenic variants in 52 genes that are candidates for causing paediatric glaucoma.
Results: Of the 98 families who were originally recruited into the 100,000 Genomes Project with developmental glaucoma, 31 families had received a genetic diagnosis to date. This gave a diagnostic rate of 31.6% for this cohort, with 67 families remaining unsolved. In this study, we identified the genetic cause for developmental glaucoma in a further five families, increasing the diagnostic rate to 36.7%. Causative variants were identified, in one family each, in SLC4A11, FOXC1, THBS1, GJA8 and CEP164. Whilst SLC4A11, FOXC1 and GJA8 are established causes of developmental glaucoma, either primary or associated with other ocular and systemic conditions, THBS1 and CEP164 have been linked to the condition more recently.
Discussion: These findings in an independent study population therefore bolster these causative associations and further our knowledge of the biological pathways underlying this complex condition.

***Rapid-Fire**, Clinical Research*

33 Raised Intraocular Pressure in Iris Melanoma: Risk Factors and Management in a Tertiary Ocular Oncology Service

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Purpose: To determine the incidence of raised intraocular pressure (IOP) in iris melanoma and identify tumour features and management outcomes associated with secondary ocular hypertension/glaucoma.
Methods: Retrospective case series of consecutive patients diagnosed with iris melanoma (1997 - 2021) from a tertiary ocular oncology database. Demographics, tumour extent (iris and angle clock hours), IOP, treatment and follow-up were recorded. Raised IOP was defined as >21 mmHg at presentation or during follow-up.
Results: Of 335 patients, 99 developed raised IOP (29.6%); mean age was 57 years. Compared with patients maintaining normal IOP, the raised-IOP group had greater iris involvement (mean 2.98 vs 1.88 clock hours) and greater angle involvement (2.88 vs 1.18 clock hours). Fifty-seven of 99 had normal IOP at presentation and developed elevation later. Mean IOP at presentation was 20.41 mmHg, rising to a mean peak of 34.77 mmHg; only 3 had pre-existing primary open-angle glaucoma. Most patients received proton beam radiotherapy (84/99). IOP was managed medically in 66/99; 27/99 required procedures (trabeculectomy n=8, deep sclerectomy n=3, Baerveldt tube n=6, cyclodiode n=12) and 10 underwent enucleation. At last review, 47% achieved IOP <21 mmHg; 53% remained >21 mmHg (21% >30 mmHg).
Conclusions: Raised IOP affects almost one-third of patients with iris melanoma and correlates strongly with angle involvement. Despite tumour-directed therapy, many patients require escalation beyond topical medication, and persistent elevation is common. Angle involvement may help stratify glaucoma risk and prompt early gonioscopy, close monitoring and timely glaucoma specialist input.

Poster, Clinical Research

35 A Kirigami Microshunt Implanted in the Suprachoroidal Space is Safe, Biocompatible and Effective

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Introduction: Glaucoma is a leading cause of irreversible blindness worldwide, with intraocular pressure (IOP) modulation the primary therapeutic strategy. Minimally invasive glaucoma surgery (MIGS) approaches targeting the suprachoroidal space (SCS) demonstrate clinical efficacy but are limited by fibrosis, implant migration and corneal endothelial cell density (ECD) loss. We developed a deployable kirigami-inspired nitinol microshunt to create a controlled artificial cyclodialysis cleft, enabling sustained uveoscleral outflow while minimizing tissue disruption and anterior chamber exposure.
Methods: A self-expanding kirigami microshunt was fabricated from nitinol and optimized using finite element analysis and benchtop testing. Surgical feasibility and anatomical positioning were assessed in cadaveric human eyes. Long-term in vivo evaluation was conducted in New Zealand White rabbits over six months, and controlled with sham surgery. Serial IOP measurements, slit-lamp and fundus photography, anterior segment optical coherence tomography (AS-OCT), in vivo confocal microscopy, and histopathology were used to evaluate safety, stability, and biocompatibility.
Results: The microshunt demonstrated reliable deployment, stable SCS positioning, and sustained patency. Implantation achieved significant and sustained IOP reduction over 180 days ($p=0.024$), whereas sham surgery demonstrated no significant change from baseline. AS-OCT confirmed persistent SCS separation without changes in scleral or anterior chamber anatomy. Confocal microscopy showed preserved corneal ECD, with no significant differences versus sham or fellow eyes. Histopathology revealed minimal chronic inflammation, limited fibrosis, and no device migration.
Significance: This kirigami-based microshunt offers a safe, effective, and durable SCS-based MIGS approach, supporting future clinical translation for long-term glaucoma therapy.

Poster, Laboratory Research

36 Early Outcomes of Excimer Laser Trabeculostomy Combined with Phacoemulsification

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Introduction: To evaluate the early efficacy and safety of excimer laser trabeculostomy (ELT) combined with phacoemulsification in patients with ocular hypertension (OHT) or open-angle glaucoma (OAG).
Methods: This single-centre, prospective interventional study included patients diagnosed with OHT or OAG and visually significant cataract who underwent combined phacoemulsification and ELT using the ELIOS device (Elios Vision Inc., Irvine, CA). The main outcome measures were changes in IOP and the number of IOP-lowering medications from baseline.
Results: Thirty-eight eyes of 32 patients were included. The mean age (±SD) was 76.6 (±8.4) years. Mean IOP at baseline and day 1, week 1, month 1, month 3 and month 6 were 17.61 (±3.63) mmHg, 15.33 (±4.60) mmHg, 15.50 (±4.12) mmHg, 14.52 (±3.56) mmHg, 12.73 (±3.13) mmHg and 13.89 (±3.66) mmHg respectively. IOP reduction was statistically significant at all time intervals ($p < 0.05$). The mean number of IOP-lowering medications at baseline and day 1, week 1, month 1, month 3 and month 6 were 2.18 (±0.87), 2.17 (±0.88), 2.22 (±0.87), 2.21 (±0.94), 2.09 (±1.14) and 1.78 (±1.30) respectively. The reduction in the number of IOP-lowering medications was statistically significant at month 6 ($p<0.05$). No serious intraoperative or postoperative complications were observed.
Significance: Combined phaco-ELT demonstrated a favourable safety profile and was effective in reducing IOP and medication burden in patients with OHT or OAG at early postoperative period. Longer follow-up and larger cohorts are required to confirm sustained IOP and medication reductions.

Poster, Clinical Research

37 Efficacy and Safety of iStent vs KDB Goniotomy + Phacoemulsification over 5 Years

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Purpose: Long-term comparison of efficacy and safety of i-Stent versus KDB goniotomy combined with phacoemulsification through to 5 years.
Methods: A retrospective chart review of 88 patients that received iStent or KDB in combination with phacoemulsification at a single centre between January 2014 and January 2019. Outcome measures were proportion of eyes achieving â‰¥20% reduction of IOP, drop dependence through to 5 years and change in visual field mean deviation (MD) at year 5 compared to baseline. Early to moderate stage of glaucoma.
Results: No significant difference between groups for IOP reduction (p=0.3) or visual field MD (p=0.85) at all time points through to 5 years. Significantly lower drop dependence favouring KDB at all time points (p<0.001 year 1; p=0.02 year 5). Lower rate of secondary procedures following KDB (7.7% vs 14%). Adverse events following iStent and KDB: hyphaema (5.5% v 10%), corneal oedema (8% v 2%), rebound anterior uveitis (5.5% v 2%). Complications resolved within 2 weeks with no serious incidents (loss of VA by ≥2 Snellen lines).
Conclusion: Each procedure provided comparable long-term IOP reduction and visual field stability over five years. KDB goniotomy resulted in significantly less drop dependence throughout with fewer associated secondary procedures. Adverse events were infrequent and mild, with no serious complications observed.

Poster, Clinical Research

38 Intraocular Pressure Measurement one-Month Post-SLT in the Virtual Glaucoma Clinics

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Introduction: Selective laser trabeculoplasty (SLT) is widely used as a first-line treatment for primary open-angle glaucoma and ocular hypertension. Current guidelines recommend measurement of intraocular pressure (IOP) at one month, often within a virtual clinic setting, to assess treatment response and detect post-procedural IOP spikes.
Methods: A retrospective analysis was conducted of 60 eyes (30 right, 30 left) that underwent SLT between July 2022 and August 2024. Data collected included pre-treatment IOP and IOP measured one month after the first and one month after the second session of SLT, in the virtual clinic setting. Patients' demographics, significant IOP spikes post-procedure, changes to topical glaucoma medications and time from listing to the first session of SLT treatment were also documented.
Results: Patient age ranged from 25 to 92 years (mean 68.5 years). 53.3% were male and 46.7% were female. The mean time from listing to first SLT was 5.4 months, and 98% of patients attended the one-month virtual follow-up. Mean baseline IOP was 19.5 mmHg, reducing to 17.9 mmHg after the first SLT and 17.5 mmHg after the second session, representing a 10.3% reduction from baseline. No patients experienced an IOP spike post-procedure requiring emergency management. The mean number of topical glaucoma medications remained unchanged pre- and post-SLT.
Discussion: Virtual one-month follow-up effectively demonstrates the IOP-lowering effect of SLT. There were no patients who had significant IOP spikes, which means that low-risk glaucoma patients may not need to attend routine one-month IOP checks. Thus, improving patient experience and reducing pressure on busy outpatient services.

Poster, Clinical Research

39 Red eye and Proptosis with low Intraocular Pressure After Trabeculectomy: A Diagnostic Pitfall

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Introduction: Orbital congestion with diplopia is commonly attributed to thyroid eye disease or inflammation. In patients with prior filtration surgery, intraocular pressure (IOP) may remain low/normal despite significant episcleral venous congestion, complicating early recognition of the underlying cause and delaying definitive imaging.
Methods: Single-patient case report with retrospective review of serial ophthalmic examinations, ocular imaging and neuroimaging from first presentation to definitive treatment and follow-up.
Results: An 85-year-old woman with advanced glaucoma and bilateral trabeculectomies presented with a subacute red eye and persistently low/normal IOPs with functioning blebs. Early posterior segment assessment and OCT demonstrated hypotony-related choroidal folds/effusion, contributing to an initial non-vascular working diagnosis. Over subsequent reviews she developed progressive right proptosis with marked conjunctival injection and arterialised episcleral vessels, and later gaze-evoked diplopia with limitation of abduction. CT head/orbits with contrast showed orbital venous congestion and an enlarged superior ophthalmic vein but was initially interpreted as possible thyroid eye disease due to extraocular muscle enlargement. CT angiography subsequently confirmed an indirect carotid–cavernous fistula with cortical venous reflux. The patient underwent endovascular embolisation/coiling (bilateral treatment) with stabilisation of ocular congestion and stable glaucoma parameters, with residual gaze-evoked diplopia.
Significance: Low/normal IOP does not exclude carotid–cavernous fistula in post-trabeculectomy eyes. In the presence of proptosis and episcleral venous congestion (with or without ophthalmoplegia), early vascular imaging (CTA/MRA) should be pursued to avoid delayed diagnosis.

e-Poster only, Clinical Research

40 Ghost Cell Glaucoma Secondary to Proliferative Diabetic Retinopathy: A Case Report

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Introduction: Ghost cell glaucoma is a rare secondary open-angle glaucoma caused by obstruction of the trabecular meshwork by degenerated erythrocytes originating from vitreous haemorrhage. These rigid 'ghost cells' migrate into the anterior chamber and may produce the characteristic candy-stripe sign due to gravity-dependent layering. It is commonly associated with ocular trauma, intraocular surgery, or vascular disorders such as proliferative diabetic retinopathy. Prompt recognition is essential to prevent sustained intraocular pressure elevation and irreversible optic nerve damage.
Method: We report a 58-year-old man presenting with a two-week history of blurred vision, redness, and ocular pain in the right eye. Visual acuity was 6/24 and IOP measured 42 mmHg. Slit-lamp examination demonstrated khaki-coloured cells layering inferiorly in the anterior chamber. B-scan ultrasonography confirmed dense vitreous haemorrhage without retinal detachment. His medical history included type 2 diabetes complicated by proliferative diabetic retinopathy treated with pan-retinal photocoagulation. Management with topical aqueous suppressants and corticosteroids failed to adequately control IOP. The patient subsequently underwent pars plana vitrectomy with endolaser photocoagulation.
Results: Surgery cleared the vitreous haemorrhage and eliminated the source of ghost cells. IOP reduced to 18 mmHg on day one and stabilized at 14 mmHg within one week. Visual acuity improved to 6/12 by three months. Retinal neovascularization regressed, and no recurrence occurred.
Significance: This case highlights the diagnostic value of the candy-stripe sign and the importance of early surgical intervention when medical therapy fails. Pars plana vitrectomy can effectively restore IOP control and preserve vision in ghost cell glaucoma secondary to diabetic retinopathy.

e-Poster only, Clinical Research

POSTER ABSTRACTS

	INHERITED RETINAL DISEASE	ABSTRACTS 41–45	
41	**RAPID FIRE** Automated AI-Based Coregistration Platform for Microperimetry and Optical Coherence Tomography Enables Structure-Function Analysis in Retinal Disease	**Vasil Kostin:** Nuffield Laboratory of Ophthalmology, Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, UK. Oxford Eye Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK.	CR
42	Handheld Electroretinography Enables Rapid Diagnosis of Melanoma-Associated Retinopathy	**Aysha Adil**: UCL Institute of Ophthalmology, London, UK.	CR
43	Genetic Diagnosis and Socioeconomic Disparities in Inherited Retinal Disease: A West Midlands Cohort Study	**Benjamin Ng**: Birmingham and Midland Eye Centre, Birmingham, UK. Nuffield Laboratory of Ophthalmology, University of Oxford, Oxford, UK.	CR
44	OCT and Autofluorescence Phenotypic Features in Autosomal Dominant RHO Associated Retinitis Pigmentosa Variants	**Christina Karakosta**: Oxford Eye Hospital, John Radcliffe Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK.	CR
45	Chorioretinal Atrophy (CRA) Following Subretinal Voretigene Neparvovec (VN) in RPE65 Retinal Dystrophy: Is CRA a Misnomer?	**Wonyoung Moon**: Oxford Eye Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK.	CR

41 Automated AI-Based Coregistration Platform for Microperimetry and Optical Coherence Tomography Enables Structure-Function Analysis in Retinal Disease

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Introduction: Accurate spatial coregistration of microperimetry (MP) and optical coherence tomography (OCT) is essential for structure-function analysis in retinal disease, yet this remains a time-consuming manual process. No automated, open-source solution currently exists for routine clinical or research use.
Methods: We developed a fully automated, open-source, web-based pipeline for MP-OCT coregistration and structure-function analysis. Cross-modal image alignment employs a deep feature matcher pre-trained for cross-modality tasks, combined with CLAHE contrast enhancement and MAGSAC-based robust homography estimation to register MP scanning laser ophthalmoscope fundus images to OCT en face projections. The platform supports multiple Heidelberg Spectralis formats (.vol, .e2e, .xml). A modular segmentation architecture provides built-in models (Choroidalyzer for choroid, vessel, and fovea segmentation) alongside a generic PyTorch interface for custom model upload with interactive resegmentation. Segmentation data can be exported in COCO, NIfTI, and training-ready formats. Structure-function analysis generated layer thickness maps, correlation statistics (Pearson, Spearman), and spatial heatmaps overlaid on the en face retinal image.
Results: The pipeline was validated on 20 eyes from 10 patients with inherited retinal diseases (IRDs) of varying severity across multiple genotypes. Successful coregistration was achieved in 20/20 eyes (100%), with mean processing time of 68 seconds (range 58-73) per patient on a standard laptop without usage of GPU.
Significance: Fully automated, cross-modal MP-OCT coregistration is feasible across diverse IRDs and disease severities. This open-source platform enables reproducible, quantitative structure-function analysis without manual intervention, providing a scalable tool for both clinical practice and research.

***Rapid-Fire**, Clinical Research*

42 Handheld Electroretinography Enables Rapid Diagnosis of Melanoma-Associated Retinopathy

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Introduction: Melanoma-associated retinopathy (MAR) is a rare paraneoplastic autoimmune retinopathy, presenting often with photopsia, nyctalopia, reduced vision and impaired colour vision, usually with minimal fundus changes. As paraneoplastic syndromes may precede detection of the primary malignancy, rapid recognition is crucial.
Methods: Two patients with new visual symptoms underwent clinical assessment, multimodal retinal imaging and electroretinography, culminating in a diagnosis of MAR. A handheld/portable electroretinogram (ERG) device (RETeval device, LKC Technologies) was used in clinic to obtain photopic long-flash on-off ERGs.
Results: In both cases (males aged 87 and 82), handheld ERGs (obtained within 5 min) showed selective attenuation of the b-wave in response to stimulus onset, indicating ON-pathway dysfunction, with preserved responses to stimulus offset. In one patient, ERGs prompted systemic investigations that revealed metastatic melanoma, leading to appropriate investigation and systemic treatment. In the other patient, the diagnosis of melanoma had been made some months previously, but the portable ERGs confirmed the suspected MAR diagnosis.
Significance: Handheld ERG can provide a rapid, objective ''red flag'' waveform for MAR at the point of care, shortening time to diagnosis and facilitating the earlier initiation of appropriate management.

Poster, Clinical Research

43 Genetic Diagnosis and Socioeconomic Disparities in Inherited Retinal Disease: A West Midlands Cohort Study

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Introduction: Inherited retinal diseases (IRDs) are a leading cause of irreversible blindness in the working-age population. Given the socioeconomic diversity and complex population dynamics of the West Midlands, there may be unmet need in this region. This study aimed to characterise the genetic profile of adult IRD cohort at a tertiary referral centre in the West Midlands, evaluate socioeconomic status and access to care, and estimate potential under-recognition of IRD patients locally.
Methods: A retrospective cohort study of patients attending the adult IRD service at the Birmingham Midland Eye Centre was conducted. Genetic variants were reviewed for eligibility for current and emerging therapies, including active clinical trials. Socioeconomic status was assessed using the Index of Multiple Deprivation (IMD). Projected number of IRD patients was estimated using historical centre data, adjusted for population growth and consanguinity rates.
Results: 102 follow-up patients were analysed (mean age 45.8±14.4 years; mean age at first diagnosis 33.1±16.1 years; 50% male; 44.1% White and 42.2% Asian). Consanguinity was reported in 4.9%. Only 36.3% had confirmed molecular diagnosis. Most frequently identified genes were USH2A, ABCA4, RPGR, EYS, and RHO (each 2.94%). Three patients with ABCA4 variants may meet eligibility criteria for an ongoing gene therapy trial. Mean IMD rank was 10,581 (range: 97 - 32,134), indicating wide socioeconomic variation. Based on historical trends, approximately 550 IRD patients are projected to be under follow-up by 2026.
Conclusion: These findings highlight gaps in case identification and genetic diagnosis that may limit equitable access to emerging therapies in the West Midlands.

Poster, Clinical Research

44 OCT and Autofluorescence Phenotypic Features in Autosomal Dominant RHO Associated Retinitis Pigmentosa Variants

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Introduction: To describe retinal imaging characteristics and the natural history of rhodopsin (RHO) associated autosomal dominant retinitis pigmentosa (ADRP) by evaluating ellipsoid zone (EZ) loss and measuring the degree of constriction of the area within and including the hyperautofluorescent ring.
Methods: Eighteen patients with molecularly confirmed RHO variants were retrospectively evaluated. Fundus autofluorescence (FAF) and spectral-domain optical coherence tomography (OCT) images from the baseline and last available follow up were used for analysis purposes. The EZ width and the area within and including the hyperfluorescent ring were measured. The correlation between the EZ width and area of the hyperfluorescent ring was investigated.
Results: Mean best corrected visual acuity (BCVA) (logMAR) was 0.21 at baseline and 0.29 at last visit over a mean follow-up of 5 years. Nine patients presented with sectoral RP, eight with typical RP, and one with unilateral RP. The mean EZ constriction rate was −41.08 μm/year (SD=36.08), and the area within and including the hyperautofluorescent ring decreased by -0.54 mm²/year (SD=0.50). A strong correlation was found between EZ width and ring area both at baseline ($r=0.92$, $p<0.0001$) and at last visit ($r=0.92$, $p < 0.0001$).
Conclusions: Quantitative imaging markers, such as EZ width and the area within and including the hyperautofluorescent ring provide reproducible measures of disease progression. These image biomarkers are useful in providing clear outcome measures for natural history studies and therapeutic trials.

Poster, Clinical Research

45 Chorioretinal Atrophy (CRA) Following Subretinal Voretigene Neparvovec (VN) in RPE65 Retinal Dystrophy: Is CRA a Misnomer?

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Introduction: Chorioretinal atrophy (CRA) has been reported after subretinal voretigene neparvovec (VN) therapy for RPE65-associated retinal dystrophy. The term CRA implies atrophy of the choroid, retinal pigment epithelium, and outer retina, but its correlation with optical coherence tomography (OCT) structural changes is unclear. This study assesses longitudinal OCT changes and functional outcomes after VN surgery.
Methods: In this retrospective single-centre study, patients with RPE65-associated retinal dystrophy treated with subretinal VN were included. Demographics, surgical details, BCVA, and full-field sensitivity threshold (FST) were extracted from electronic patient records; subretinal pigmentary changes were identified on Optos imaging. Retinal and choroidal thickness and choroidal hypertransmission were assessed on OCT at baseline and 1, 3, 6, and 12 months at touchdown sites, within/outside blebs, and the fovea. Hypertransmission was graded per Classification of Atrophy Meetings criteria.
Results: Twelve eyes from six patients (mean age 41.6±12.7 years) were included; 10 eyes had baseline posterior pole pigmentary changes on Optos imaging. Mild retinal and choroidal thinning occurred at touchdown sites and the fovea, with no statistically significant changes elsewhere. Hypertransmission remained stable in 66.7% of eyes; de novo complete hypertransmission consistent with CRA appeared in two eyes (16.7%) without BCVA or FST decline. Mean BCVA remained stable, and FST improved across wavelengths.
Discussion: OCT-confirmed CRA progression was uncommon and not linked to functional decline in this cohort. Larger studies are needed to clarify OCT-defined CRA and its functional impact. These findings may guide patient counselling and refine structural outcomes in gene therapy trials.

Poster, Clinical Research

ABSTRACT MENU

POSTER ABSTRACTS

	LIDS, LACRIMAL & ORBIT	ABSTRACTS 46–51	
46	Benchmarking General-Purpose AI Models for Periorbital Segmentation and MRD1 Measurement	**Faiq Khan**: Swansea Bay University Health Board, Swansea, UK.	CR
47	From Inflammation to Fibrosis: Immune and Cellular Programs in Thyroid Eye Disease	**Anne Xuan-Lan Nguyen**: Kennedy Institute of Rheumatology, University of Oxford, Oxford, UK. Oxford Eye Hospital, Oxford University Hospitals, Oxford, UK. Department of Ophthalmology and Vision Sciences, University of Toronto, Toronto,	LR
48	Challenging the Punctoplasty Paradigm: A First Systematic Review and Meta-Analysis of Lacrimal Stenting Versus Punctoplasty	**Zhi Heng Henry Lin**: Colchester Eye Centre, Colchester, UK.	CR
49	When Inflammation Isn't Benign: Secretory Carcinoma of the Lacrimal Gland Masquerading as an Inflammatory Lesion	**Mohammad Alkhlaifat**: Luton and Dunstable Hospital, Bedfordshire Hospitals NHS Foundation Trust, Luton, UK.	CR *DP*
50	Colorectal Carcinoma Presenting with Orbital Metastasis to the Greater wing of the Sphenoid Mimicking Orbital Cellulitis	**Iman Daoud**: Leicester University Hospitals, Leicester, UK.	CR *DP*
51	Withdrawn		

ABSTRACT MENU

46 Benchmarking General-Purpose AI Models for Periorbital Segmentation and MRD1 Measurement

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Introduction: Accurate periorbital and eyelid measurements are vital for ptosis assessment and surgical planning within oculoplastics. However, manual measurements, specifically the Margin Reflex Distance 1 (MRD1), are often time-consuming and prone to interobserver variability. While AI-based image segmentation offers a potential pathway for objective, reproducible measurements, the comparative efficacy of general-purpose models versus specialised tools remains underexplored.
Methods: This study utilized the Open Source Periorbital Segmentation Dataset, comprising 2,842 annotated images. We benchmarked the performance of four general-purpose AI models, ChatGPT 4V, Claude 3, Qwen VL, and DeepSeek Vision against the domain-specific UNet. Evaluation metrics included the Dice Similarity Coefficient (DSC) for segmentation overlap and Mean Absolute Error (MAE) for MRD1 measurement accuracy.
Results: Qwen VL emerged as the strongest general-purpose model, achieving a DSC of 0.78 and an MAE of 0.9 mm. Despite this, it was significantly outperformed by the specialized UNet model, which demonstrated superior precision (DSC:0.92, MAE:0.2 mm). Furthermore, general models exhibited longer inference times and struggled with fine anatomical details, failing to meet the clinical accuracy threshold of <0.5 mm error for MRD1.
Conclusion: While general-purpose AI shows promise for basic analysis, it currently lacks the accuracy required for clinical oculoplastic use. Domain-specific models like UNet remain essential for precise surgical planning. Future advancements may lie in hybrid AI workflows that leverage the strengths of both general and specialized systems.

Poster, Clinical Research

47 From Inflammation to Fibrosis: Immune and Cellular Programs in Thyroid Eye Disease

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Introduction: The mechanisms driving the transition from inflammation to fibrosis in thyroid eye disease (TED) remain incompletely understood. We characterised cellular states in active and fibrotic TED, focusing on fibroblast heterogeneity and immune-stromal interactions, and assessed whether peripheral immune signatures reflect immune processes within the orbit.
Methods: Orbital tissues obtained during decompression surgery from 13 patients with TED (active: Clinical Activity Score ≥3, n=6; inactive: CAS <3, n=7) and 2 non-inflammatory controls were analysed using single-cell RNA sequencing with immune repertoire profiling. Peripheral blood mononuclear cells from 98 TED, 15 Graves' disease (GD), and 43 control samples were analysed using a 28-color Aurora flow cytometry panel and high-throughput B-cell receptor (BCR) and T-cell receptor (TCR) sequencing to characterize peripheral immune populations and clonal architecture.
Results: Single-cell analysis identified stage-specific fibroblast states in TED. Active disease was enriched for inflammatory-adipogenic fibroblasts expressing PLIN2, TNFSF8, KYNU, and S100A9, whereas inactive disease exhibited fibrotic and contractile populations marked by SPARC, GPX3, BAMBI, TAGLN, NDUFA4L2, and COLEC11. Fibroblasts, T cells, and endothelial cells showed the greatest transcriptional differences between stages. Orbital immune profiling revealed T-cell activation and CD8â° T-cell clonal expansion in active TED, with upregulation of REL, NFKB1, and CD69. Peripheral immune profiling demonstrated altered B- and T-cell subset composition and heterogeneous TCR and BCR clonal expansion across cohorts.
Discussion: TED exhibits distinct, stage-dependent fibroblast and immune programs. These cellular insights provide a clinically relevant framework for understanding the transition from inflammation to fibrosis and highlight opportunities for stage-specific therapeutic strategies in TED.

48 Challenging the Punctoplasty Paradigm: A First Systematic Review and Meta-Analysis of Lacrimal Stenting Versus Punctoplasty

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Introduction: Punctal stenosis significantly impairs quality of life through epiphora. Punctoplasty remains the most commonly performed intervention, while lacrimal stenting is increasingly used, yet their relative efficacy remains unclear. Existing evidence is limited and heterogeneous, hindering evidence-based surgical decision-making.
Methods: This review was conducted in accordance with PRISMA 2020 guidelines and pre-registered on the Open Science Framework. A comprehensive search strategy was applied to MEDLINE, EMBASE, CENTRAL and Cochrane Library, supplemented by grey literature and manual screening. Direct comparative studies were included. Risk of bias was assessed using RoB 2.0 and ROBINS-I. Where sufficient clinical and methodological homogeneity was present, random-effects meta-analysis was performed. Subgroup analyses explored variations by stent type and duration. Narrative synthesis was undertaken where pooling was inappropriate. Certainty of evidence was assessed using the GRADE framework.
Results: Eight studies (509 punctae) met inclusion criteria. Point estimates favoured stenting across all outcomes, with statistically significant higher rates of symptom resolution (RR: 1.60, 95% CI 1.01-2.55, p=0.007) and improved objective tear drainage (RR: 1.22, 95% CI 1.02-1.46, moderate-certainty evidence, p=0.031), with a non-significant trend toward lower rates of restenosis (RR 0.77, 95% CI 0.49-1.22, low-certainty evidence). No subgroup-effect was detected for type or duration of stent. Minor complications occurred in both groups (typically self-limiting).
Discussion: Stenting offers statistically significant advantages over punctoplasty in critical outcomes: symptom resolution and tear drainage improvement. These findings support stenting as a first-line treatment for punctal stenosis in adults and challenge the continued primacy of punctoplasty in routine practice.

Poster, Clinical Research

49 When Inflammation Isn't Benign: Secretory Carcinoma of the Lacrimal Gland Masquerading as an Inflammatory Lesion

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Introduction: Mammary analogue secretory carcinoma (MASC), is an exceedingly rare low-grade epithelial malignancy of the lacrimal gland. Involvement of the lacrimal gland is exceptionally uncommon and it can present a diagnostic challenge due to overlapping clinical, radiological and histological features with benign inflammatory disease.
Methods: We report a case with clinical, radiological, surgical and histopathological correlation.
Results: A 62-year-old male presented with an 8-month history of progressive right-sided proptosis, pain, diplopia and lacrimation. MRI and CT scans of the orbit demonstrated an avidly enhancing extraconal mass centred on the lacrimal gland with features suspicious for malignancy. An initial incisional biopsy revealed benign inflammatory changes in association with mildly elevated IgG4 levels, and the patient was started on high-dose oral prednisolone without clinical improvement. Due to persistence of the lesion and ongoing clinical concern, definitive surgical excision was performed via a lateral orbitotomy. Histopathological analysis of the excised specimen confirmed the diagnosis of secretory carcinoma of the lacrimal gland. The tumour demonstrated low-grade features, with no evidence of perineural or vascular invasion or tumour necrosis.
Discussion: Limited biopsy specimens may lead to a misdiagnosis of lacrimal gland malignancy such as secretory cancer of the lacrimal gland. Regardless of the initial histology, persistent lacrimal gland masses should be investigated and excised to rule out underlying malignancy.

e-Poster only, Clinical Research

50 Colorectal Carcinoma Presenting with Orbital Metastasis to the Greater wing of the Sphenoid Mimicking Orbital Cellulitis

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Background: Orbital metastases most commonly originate from breast, lung, and prostate malignancies. Metastatic spread from colorectal carcinoma to the orbit is exceptionally rare, particularly involving the greater wing of the sphenoid; only two reported cases. Such cases may mimic inflammatory or infectious orbital conditions, resulting in diagnostic delay.
Case Presentation: A 44-year-old man presented with acute right eyelid swelling, pain, and restricted ocular motility, initially treated as presumed preseptal/orbital cellulitis. Contrast-enhanced computed tomography demonstrated a lesion involving the right greater wing of the sphenoid with periosteal reaction and intra- and extraconal extension. Subsequent systemic imaging revealed widespread metastatic disease involving the skull base, lungs, liver, left adrenal gland, and presacral soft tissues. On further history, the patient reported rectal bleeding and altered bowel habits. Colonoscopic biopsy confirmed moderately differentiated colorectal adenocarcinoma.
Conclusion: This case highlights an exceptionally rare presentation of metastatic colorectal carcinoma involving the sphenoid wing and orbit, mimicking orbital cellulitis. Early imaging, thorough systemic history, and multidisciplinary collaboration are essential in atypical orbital inflammatory presentations.

e-Poster only, Clinical Research

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53	**RAPID FIRE** Two-Year Effectiveness, Durability and Safety of Faricimab in Eyes with DMO: Results from the UK FARWIDE-DMO Study	**Christine Kiire**: Oxford Eye Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK.	CR
54	**RAPID FIRE** Metagenomics for Ocular Inflammation - Initial Insights and Results from a Single-Site UK Study	**Daniyal Ansari**: Maidstone & Tunbridge Wells NHS Trust, Kent, UK.	CR
55	**RAPID FIRE** Diabetic Retinopathy Screening Outcomes After age 80	**Arya Ghatge**: Gloucestershire Retinal Research Group, Department of Ophthalmology, Gloucestershire Hospitals NHS Foundation Trust, Gloucester, UK.	CR
56	Stability of Adult Human Retinal Cell Markers Across Single-Cell Studies: Clinical Implications for Retinal Disease Research	**Ameer Khamise**: Nuffield Laboratory of Ophthalmology, Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, UK.	LR
57	Association of Reticular Pseudodrusen Burden and Dark Adaptation in non-Advanced age-Related Macular Degeneration: A Cross-Sectional and Longitudinal Study	**Ariel Yuhan Ong**: Institute of Ophthalmology, University College London, UK. Oxford Eye Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK.	CR
58	Withdrawn		
59	Developing a Scalable Pipeline for data Extraction from Clinical Letters Through Resource-Efficient Prompt Engineering	**Ariel Yuhan Ong**: University College London, UK. Moorfields Eye Hospital NHS Foundation Trust, London, UK.	LR
60	Using Stimulated Whole Blood Analysis to Predict Treatment Responses in Birdshot Chorioretinopathy	**Bruno Charbit**: UCL Institute of Ophthalmology, London, UK.	LR
61	The Diagnostic Accuracy of Diabetic Retinopathy Screening Using Hand-Held Retinal Imaging Devices in Real-World Settings: A Systematic Review and Meta-Analysis	**Charith Mayadunne**: School of Medicine, Anglia Ruskin University, Cambridge, UK.	CR
62	Drusen Volume Change as Clinical Outcome Assessment in Malattia Leventinese / Doyne Honeycomb Retinal Dystrophy: A Two-Year Natural History Study	**Clara Ehrenzeller**: University of Oxford, Oxford, UK.	CR
63	Comparison of Near-Infrared Reflectance and Blue Autofluorescence Imaging for Diagnosis and Monitoring of Geographic Atrophy	**Grace Borchert**: Oxford Eye Hospital, Oxford, UK. Nuffield Laboratory of Ophthalmology, Nuffield Department of Clinical Neurosciences, University of Oxford, Oxford, UK.	CR
64	Early Real-World Effectiveness and Safety of Faricimab in Eyes with RVO: 6-Month Results from the UK FARWIDE-RVO Study	**S. James Talks:** Newcastle Hospitals NHS Foundation Trust, Newcastle upon Tyne, UK.	CR
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66	Faricimab versus Aflibercept for Discharge and Readmission in Neovascular Age-Related Macular Degeneration: A Lesion-Type Stratified, Real-World UK Analysis	**Christopher Stewart**: Swansea University Health Board, Swansea, UK.	CR
67	Management Outcomes in Retinal Vasoproliferative Tumours: A Systematic Review	**Lana Abou Swid**: King's College London, London, UK.	CR
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71	Diabetic Macular Oedema Recurrence Rate in a Real-World Anti -VEGF Treated Cohort	**S. James Talks**: Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle upon Tyne, UK.	CR
72	Two-Year Effectiveness, Durability and Safety of Faricimab in	**Samantha R. de Silva**: Oxford University	CR
73	Real-World Outcomes of Switching Treatment-Resistant nAMD Patients to Aflibercept 8 mg	**Tu Xuong Michelle Ly**: The Royal Wolverhampton NHS Trust, Wolverhampton, UK.	CR
74	Real-World Data on Treatment-Naïve Neovascular Age Related Macular Degeneration (nAMD) Patients Treated with Aflibercept 8 mg	**Tu Xuong Michelle Ly**: The Royal Wolverhampton NHS Trust, Wolverhampton, UK.	CR
75	Investigating Outcomes of Treatment with Intravitreal Injection Therapy in Patients with Diabetic Macular Oedema at the Oxford Eye Hospital	**Yash Suribhatla**: Oxford Eye Hospital, Oxford University Hospitals NHS Foundation Trust, Oxford, UK.	CR
76	Antiphospholipid Antibody Syndrome Presenting as a Vasoproliferative Retinal Tumour in a 12-Year-Old Girl: A Case Report	**Reem Hasan**: Oxford University Hospitals, Oxford, UK.	CR
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78	Paraneoplastic Autoimmune Retinopathy as the Initial Manifestation of Invasive Thymoma: A Case Report	**Mohammed Quhill**: Sandwell & West Birmingham Trust, Birmingham, UK.	CR
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ABSTRACT MENU

52 Four-Year Outcomes of Faricimab in nAMD: Safety and Tolerability Results from the AVONELLE-X Long-Term Extension Trial

S. James Talks[1]

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Introduction: Faricimab provides durable visual and anatomic improvements in neovascular age-related macular degeneration (nAMD). We present long-term safety (primary endpoint) and efficacy (exploratory endpoint) findings from the AVONELLE-X (NCT04777201) extension of the 2-year phase 3 TENAYA (NCT03823287)/LUCERNE (NCT03823300) trials.

Methods: In TENAYA/LUCERNE, patients received faricimab 6 mg up to every 16 weeks (Q16W) or aflibercept 2 mg Q8W. Patients in AVONELLE-X received faricimab 6 mg up to Q16W using a protocol-defined treat-and-extend (T&E) regimen based on TENAYA/LUCERNE. AVONELLE-X comprised masked monthly visits for 12 weeks, followed by an open-label period with visits only at faricimab dosing intervals determined by the T&E algorithm.

Results: Overall, 1029/1188 (86.6%; faricimab T&E, n=524; faricimab T&E [prior aflibercept], n=505) patients completing TENAYA/LUCERNE were included in the AVONELLE-X analysis; 877 (85.2%) completed treatment. Faricimab was well tolerated through 2 years of AVONELLE-X. Best-corrected visual acuity remained largely stable in AVONELLE-X; 75% of patients with ≥20/40 vision at week 48 in TENAYA/LUCERNE maintained this level at the end of AVONELLE-X. Central subfield thickness improvements in TENAYA/LUCERNE were maintained in AVONELLE-X. After 4 years, 78.2% of patients were on extended (≥Q12W) faricimab dosing and 63.9% on Q16W. Among prior aflibercept 2 mg Q8W patients with persistent retinal fluid at weeks 104 and 112 of TENAYA/LUCERNE, 44% (56/126) were fluid-free at 2 years after switching to faricimab T&E.

Discussion: Faricimab up to Q16W was well tolerated, with a safety profile consistent with TENAYA/LUCERNE. Disease control and durability achieved in TENAYA/LUCERNE was sustained through an additional 2 years in AVONELLE-X.

***Rapid-Fire**, Clinical Research*

53 Two-Year Effectiveness, Durability and Safety of Faricimab in Eyes with DMO: Results from the UK FARWIDE-DMO Study

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Introduction: The multicentre, retrospective, observational Faricimab Real-World Evidence (FARWIDE) DMO study is evaluating UK faricimab DMO patient characteristics, visual acuity (VA), durability and safety from 35 NHS trusts using the Medisoft electronic medical record system.

Methods: Included eyes initiated faricimab after May 2022, had DMO (without nAMD/RVO) and ≥12 months follow-up as of July 2024. Treatment-naïve (TN) eyes had no prior anti-VEGF/steroid implant treatment; previously treated (PT) eyes switched from an anti-VEGF/steroid implant to faricimab. Baseline characteristics, VA and injection frequency were assessed. Intraocular inflammation (IOI) and presumed infectious endophthalmitis (PIE) incidence were assessed in the overall study cohort (nAMD and DMO) with any follow-up duration. Analyses are descriptive.

Results: 1564 patients (2147 eyes; 690 TN, 1457 PT) were included. Mean age was 62 years; ~38% were women. In TN eyes, median (Q1,Q3) VA was 66 (55,76) ETDRS letters at baseline and 74 (61,80) at 12 months. TN eyes received a mean (SD) of 4.5 (1.0) injections in months 1-6 and 1.9 (1.2) injections in months 7-12. At 12 months, 61% TN eyes had treatment intervals ≥10 weeks. 85% PT eyes switched from aflibercept 2mg. Median(Q1,Q3) VA was 70 (58,76) ETDRS letters at baseline and 70 (60,79) letters at 12 months. PT eyes received a mean (SD) 4.5 (1.2) faricimab injections in months 1-6 and 2.4 (1.3) in months 7-12. IOI/PIE rates were consistent with phase 3 trials.

Discussion: Mean VA increased in TN eyes and remained stable in PT eyes. Reduced injection frequency during months 7-12 suggests treatment interval extensions. FARWIDE-DMO demonstrates faricimab effectiveness, durability and safety over 1 year.

***Rapid-Fire**, Clinical Research*

54 Metagenomics for Ocular Inflammation - Initial Insights and Results from a Single-Site UK Study

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Introduction: Nearly half of uveitis cases are suspected to be of infectious aetiology, but currently available testing for causative organisms is limited. Metagenomic next generation sequencing (mNGS) allows untargeted sequencing of genetic material from a single sample and aligns these against reference genomes of almost all known pathogens, allowing for identification of organisms not routinely tested for, as well as unexpected or new causative agents. This study aims to use the established pipeline for mNGS of CSF at the Metagenomics Service at Great Ormond Street Hospital (GOSH), for ocular fluid samples.
Methods: Patients with uveitis with a suspected infectious cause are identified by the treating clinical team and undergo ocular fluid sampling. A portion of the sample is sent for mNGS, and results, additional testing, or treatment are discussed in an MDT which includes clinical scientists, infectious disease specialists, and ophthalmologists.
Results: 28 samples from 20 patients have undergone mNGS, 21 of which were technically successful. An organism was detected in 9 patients, with negative standard of care testing in 2 of these. Organisms identified were leptospirosa santarosai, toxoplasma gondii, Epstein-Barr Virus, Human Herpesvirus-6, candida albicans and candida glabrata. Factors for unsuccessful mNGS sequencing included quiescence at time of sampling and samples sent in saline.
Discussion: The technique for mNGS of CSF has been successfully applied to ocular fluid. The initial phase of this study has allowed for valuable clinical insights into how mNGS may be implemented into clinical practice, and demonstrates its transformative potential in challenging uveitis cases.

***Rapid-Fire**, Clinical Research*

55 Diabetic Retinopathy Screening Outcomes After age 80

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Introduction: This study evaluated outcomes in patients within the Gloucestershire Diabetic Eye Screening Programme (DESP), with no diabetic retinopathy (DR) at age 80 and above (80+) with a prior history (group A) or without a prior history (group B) of DESP attendance.
Methods: Data were obtained from the Gloucestershire DESP including those screened between Aug 2005 - Dec 2025 who had at least one screen after their 80th birthday. Retinopathy was graded as R0 (no retinopathy), R1 (background DR), R2 (pre-proliferative DR) and R3 (proliferative DR). Maculopathy was graded M0 (no maculopathy) or M1 (maculopathy present). Hospital Eye Service records and treatment outcomes were reviewed for individuals who showed no DR at age 80, then developed referable disease (R2, R3, M1).
Results: In group B, 3867 patients were R0M0. These patients had 17447 subsequent screening episodes, 64 were referred for DR at subsequent screens but only 1 required treatment for diabetic macular oedema.
In group A, 4713 had R0M0 both at the screen < 80 and at the subsequent screen at 80+, and 88 had retinopathy or were ungradable at a previous screening. 143 patients developed referable retinopathy and 353 became ungradable in at least one eye.
Conclusion: This study highlights that those with no DR at first screen at 80+ (group B) have a very low risk of developing DR requiring treatment. We are determining the risks for group A with the aim of identifying low risk groups who might not need to be invited as they get increasingly frail.

***Rapid-Fire**, Clinical Research*

56 Stability of Adult Human Retinal Cell Markers Across Single-Cell Studies: Clinical Implications for Retinal Disease Research

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Introduction: Single-cell RNA sequencing (scRNA-seq) is increasingly used to investigate mechanisms of glaucoma, macular degeneration and inherited retinal disease. Accurate interpretation depends on established marker genes to identify rods, cones, retinal ganglion cells (RGCs), MÃ¼ller glia and bipolar cells. However, the reproducibility of commonly used retinal markers across independent human studies remains unclear. We evaluated established retinal cell markers across independent adult human datasets to identify high-confidence markers for reliable use in retinal disease research.
Methods: We performed a cross-study analysis of publicly available adult human retinal scRNA-seq datasets from the PLAE/scEiaD catalogue. Five independent studies met predefined inclusion criteria and cell-type labels were harmonised. Within each study, markers were ranked according to their ability to distinguish specific retinal cell types. Cross-study stability was assessed by evaluating replication frequency and consensus ranking across datasets. Subsampling analyses were undertaken to confirm robustness.
Results: Marker stability varied substantially across retinal cell types. Canonical rod genes RHO, NRL and SAG, and MÃ¼ller markers VIM and GLUL, replicated across all five studies. The bipolar-associated gene CA10 also replicated across all studies. Conversely, established cone markers ARR3, PDE6H and GNAT2, and the widely used RGC marker RBPMS, were identified in only one study despite strong within-study discrimination. Subsampling confirmed that highly reproducible markers were robust to sampling variation.
Discussion: Variability in marker performance may influence cell-type assignment and interpretation of disease-associated gene expression in glaucoma and retinal degeneration studies. Defining high-confidence marker panels may therefore reduce misclassification and strengthen the translational reliability of retinal research.

Poster, Laboratory Research

57 Association of Reticular Pseudodrusen Burden and Dark Adaptation in non-Advanced age-Related Macular Degeneration: A Cross-Sectional and Longitudinal Study

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Introduction: Dark adaptation (DA) has emerged as a potential functional outcome for assessing age-related macular degeneration (AMD). While reticular pseudodrusen (RPD) have been linked to poorer DA, most studies to date have focused on qualitative RPD presence or comprised small sample sizes and cross-sectional designs. This study aimed to assess how automated quantification of RPD burden relates to rod-mediated DA in AMD on a cross-sectional and longitudinal basis.
Methods: Prospective longitudinal study of patients with non-advanced AMD and controls >50 years. All subjects underwent baseline retinal imaging and DA testing with a 20-minute extended protocol (AdaptDx, MacuLogix). Rod intercept time (RIT) and area under the dark adaptation curve (AUDAC) were calculated. A validated deep learning algorithm was employed to quantify optical coherence (OCT) RPD total en face area (mmÂ²) and volume (mmÂ³), which were square- and cube-root transformed respectively for analysis. RPD extent within the DA testing locus in the superior macula (5Â° eccentricity) was also assessed. Linear mixed-effect models evaluated the relationship of RPD burden with DA metrics, accounting for age, sex, smoking, AMD stage, and inter-eye correlation.
Results: We included 545 eyes (52 early AMD, 285 intermediate, 208 controls) from 310 patients (mean 69.6Â±7.4 years) in cross-sectional analysis; 128 (23.5%) had RPD. Increased RPD area and volume were associated with prolonged RIT (Î² 1.20, p=0.04 and Î² 7.59, p=0.01 respectively) and worse AUDAC (Î² 0.029, p=0.005 and Î² 0.172, p=0.001 respectively). Global RPD density, rather than local density at the DA testing site, was independently associated with delayed RIT (Î² 0.223, p=0.0189) and higher AUDAC (Î² 0.007, p<0.001). For longitudinal analysis, higher baseline RPD area and volume were associated with increased Î² AUDAC/year (Î² 0.036, p=0.008 and Î² 0.18, p=0.004), and were predictive of AUDAC at any subsequent visit (Î² 0.046, p<0.001 and Î² 0.20, p=0.006).
Conclusions: Baseline RPD burden is associated with impaired DA at baseline and longitudinal decline, thus supporting its value as a prognostically relevant structural phenotype which may have value for risk stratification and monitoring progression in non-advanced AMD.

Poster, Clinical Research

59 Developing a Scalable Pipeline for data Extraction from Clinical Letters Through Resource-Efficient Prompt Engineering

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Introduction: Free-text clinical records represent an untapped wealth of data for research, but their potential is limited by operational barriers and resource demands. We introduce a scalable, resource-efficient, and high-performance data extraction pipeline leveraging large language models (LLMs) to address these challenges, using macular disease as a proof -of-concept.
Methods: We developed a data extraction pipeline for 9 macular diseases and laterality using 600 real-world ophthalmic clinical letters (dual-specialist annotated) from 600 patients at Moorfields Eye Hospital. We defined a modular strategy for iterative prompt refinement with Gemini 1.5 Flash as the development model. Interoperability was examined within the same model family and seven other LLM families. This approach was also tested in external validation. Performance metrics were computed, with micro-averaged F1 scores as the primary outcome. An error taxonomy was developed through qualitative analysis to classify all errors. The optimal configuration for operationalisation was defined using Pareto frontier analysis.
Results: Our pipeline achieved strong performance in the development phase, yielding a maximum micro-F1 of 0.954 (95%CI 0.94-0.97), sensitivity 0.99 (0.98-1.00), specificity 0.99 (0.99-0.99), PPV 0.92 (0.89-0.94), NPV 1.00 (1.00-1.00) with the optimal prompt. Eight model- and data-centric error categories were identified - errors in domain knowledge and inference being most common - and addressed through our iterative prompt refinement strategy. This approach demonstrated strong generalisability in external validation (micro-F1 ranging from 0.95-0.98), extended to proprietary models in the same LLM family, and largely demonstrated robustness against model choice and deployment constraints in other local LLM families (for models >10B parameters). Pareto analysis identified Gemini 2.5 Flash as the optimal configuration for scaling up to a 222,204-letter dataset: micro-F1 0.975 (95 CI 0.97-0.98); USD 0.00199 and 7.8s (IQR 6.8-9.2) per letter.
Discussion: Iterative prompt refinement alone achieved promising performance for ophthalmic data extraction tasks. Beyond this, we establish a multi-dimensional methodology to systematically map operational trade-offs, enabling the development of a scalable, resource-efficient, and high-performing pipeline. This framework can help lay the foundation for next-generation data pipelines to accelerate scientific discovery.

Poster, Laboratory Research

60 Using Stimulated Whole Blood Analysis to Predict Treatment Responses in Birdshot Chorioretinopathy

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Introduction: Birdshot chorioretinopathy (BCR) is a chronic, autoimmune form of posterior uveitis that targets the retina and can result in progressive visual deterioration or permanent blindness. It has a striking genetic association with the HLA-A29 molecule, which plays a central role in disease susceptibility. As a result, BCR is widely regarded as a prototypical HLA linked autoimmune ocular disease.
Management of BCR relies on early, aggressive, and sustained immunosuppression. Although, many patients exhibit only a partial response to therapy, and a significant proportion develop treatment resistance over time. Even the most effective immunosuppressant –adalimumab–only has a 60% response rate, highlighting the substantial unmet need in understanding and predicting therapeutic outcomes.
Method: To address this, we applied the TruCulture whole blood stimulation system to a cohort of adalimumab naïve BCR patients in order to investigate their systemic immune response and identify biomarker signatures associated with long term treatment success. Whole blood was collected and incubated for 22 hours in the presence or absence of systemic or targeted immune stimuli, enabling controlled profiling of patient specific inflammatory pathways. Using the OLINK Reveal proteomic platform, we quantified the expression of over 1,000 proteins across three conditions – Null, LPS, and LPS+Adalimumab.
Conclusions: This dataset provides a high resolution view of cytokine responses, inflammatory signalling, and drug modulated pathways. By integrating these findings with each patient's clinical history and genetic background, we aim to define immune profiles that can guide clinicians toward more targeted and effective treatment strategies for BCR.

Poster, Laboratory Research

61 The Diagnostic Accuracy of Diabetic Retinopathy Screening Using Hand-Held Retinal Imaging Devices in Real-World Settings: A Systematic Review and Meta-Analysis

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Introduction: Diabetic retinopathy (DR) is a leading cause of preventable vision impairment. Limited access to conventional fundus imaging, particularly in low- and middle-income countries (LMICs), has increased interest in handheld retinal devices as screening tools. This review evaluates their diagnostic accuracy for detecting referable DR (RDR) in real-world settings, comparing human and artificial intelligence (AI) graders.
Methods: MEDLINE, CINAHL, EMBASE, Cochrane CENTRAL, CDSR, and Web of Science were searched to 31/10/2024. Studies reporting sensitivity and specificity of handheld devices against a recognised reference standard were included. Two reviewers independently extracted data. Risk of bias was assessed using QUADAS-2 or QUADAS-AI. A meta-analysis was undertaken to produce pooled summary estimates of sensitivity and specificity at RDR. Subgroup analyses explored grader type, field strategy and pupil status. STAT-IC version 14.2 was used in the data analysis (using random effects inverse variance model with DerSimonian-Laird estimate of tau squared).
Results: Forty-six studies were eligible; 31 were included in meta-analysis. Pooled sensitivity for RDR was 90% (95% CI 86–94%) and specificity 84% (95% CI 81–88%). AI grading showed similar sensitivity to human graders (90% vs 89%) but lower specificity (83%, 95% CI 79–87% vs 96%, 95% CI 92–99%). Five-field imaging achieved higher specificity than two-field methods (93% vs 84%). Mydriatic imaging showed slightly higher sensitivity and specificity than non-mydriatic approaches.
Discussion: Handheld retinal imaging demonstrates acceptable sensitivity for RDR detection and may expand screening access. AI improves sensitivity but reduces specificity, underscoring the need for further validation.

Poster, Clinical Research

62 Drusen Volume Change as Clinical Outcome Assessment in Malattia Leventinese / Doyne Honeycomb Retinal Dystrophy: A Two-Year Natural History Study

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Importance: Doyne Honeycomb Retinal Dystrophy (DHRD)/ Malattia Leventinese (ML) is a rare, inherited retinal dystrophy characterised by drusen formation and early vision loss. Its phenotypical similarities with dry age-related macular degeneration (AMD) make ML a valuable monogenetic disease model for AMD. For ongoing and future trials, identifying sensitive outcome measures is crucial.
Objective: To quantify drusen volume increase and retinal layer degeneration using fully automated segmentation for multimodal imaging analysis, and to investigate structural thresholds associated with functional decline.
Design: Cohort study (CE 4421, BASEC 2023-01353).
Setting: Multicentre study.
Participants: Twenty-five patients (15 females, 10 males; median age 60 years, IQR 51-73) with genetically confirmed ML.
Exposure: Patients underwent multimodal imaging â€" including spectral-domain optical coherence tomography, ultrawide fundus retinography and fundus autofluorescence â€" and mesopic and two-colour scotopic microperimetry.
Main Outcomes: Retinal layer thicknesses and retinal sensitivity.
Results: Drusen volume increased (+2.24 µm/y), while choroidal thickness (-10.83 µm/y), inner photoreceptor segments (-0.70 µm/y) and outer nuclear layers (-1.95 µm/y) decreased with disease progression. Total retinal thickness remained stable. Scotopic red (-0.33dB/y) and cyan (-0.41dB/y) sensitivity decreased significantly over time, while mesopic sensitivity remained unchanged. Function decreased most in the early stages of the disease, with the onset of drusen accumulation.

Poster, Clinical Research

63 Comparison of Near-Infrared Reflectance and Blue Autofluorescence Imaging for Diagnosis and Monitoring of Geographic Atrophy

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Background: In light of the emerging treatments for geographic atrophy (GA), there is an increased need for accurate multimodal imaging to diagnose and monitor GA in routine clinical practice. Fundus autofluoresence (FAF) imaging is the gold standard for measuring the area of atrophy in a clinical trial setting, yet may not always be available in every clinical setting. Near-infrared reflectance (NIR) imaging is routinely performed alongside OCT on the Heidelberg Spectralis platform in real-world practice. We compared NIR to FAF in measuring GA area.
Methods: Retrospective study at the Oxford Eye Hospital. GA patients included had OCT, FAF and NIR imaging. The area of atrophy was manually measured for NIR and by the semi-automated RegionFinder software for FAF.
Results: 107 eyes (55 patients) diagnosed with GA were included with an average age of 81.3 (SD 7.32). There were 34 females (61.8%) and 22 males (39.3%). 66 eyes (61.7%) had unifocal GA and 93 eyes (87.0%) had foveal involvement. The total area of GA on NIR imaging was 9.3 mm^2 (SD 8.4) and on FAF was 8.3 mm^2 (SD 7.5). The mean difference in GA area between FAF and NIR was 1.03 mm^2 (SD 1.8, R2=0.96).
Conclusion: The area of a GA lesion can be reliably measured using FAF or NIR imaging. The difference in measurements may suggest NIR is more sensitive to changes in the distribution of incomplete retinal pigment epithelial and outer retinal atrophy (iRORA). NIR could be helpful for clinicians to monitor progression and treatment response in routine clinical practice.

Poster, Clinical Research

64 Early Real-World Effectiveness and Safety of Faricimab in eyes with RVO: 6-Month Results from the UK FARWIDE-RVO Study

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Introduction: FARWIDE-RVO is a retrospective study of electronic health records from patients treated with the dual angiopoietin-2/VEGF-A inhibitor, faricimab, at 34 NHS sites. This analysis summarises 6-month outcomes for patients with branch (BRVO)/central/hemispheric retinal vein occlusion (C/HRVO).
Methods: Data were analysed for BRVO or C/HRVO eyes that initiated faricimab with ≥6 months of follow-up by March 2026. Outcomes are reported for treatment-naïve (TN) and previously treated (PT) eyes.
Results: The FARWIDE-RVO population included 1342 BRVO patients (1356 eyes) and 884 C/HRVO patients (907 eyes). Mean (SD) age at first faricimab treatment: BRVO, 71.5 (11.8) years; C/HRVO, 73.9 (11.7) years; 45% and 39% were female, respectively. Mean follow-up was 6.8 (4.6) months. The 6-month cohort included 271 TN and 417 PT BRVO eyes and 181 TN and 279 PT C/HRVO eyes. Median VA (Q1,Q3) in TN BRVO eyes: 59 (48,70) letters at baseline and 70 (60,78) letters at 6 months. Corresponding PT eye values were 69 (59,76) and 70 (59,77) letters. Median (Q1,Q3) injections over 6 months in TN and PT BRVO eyes was 4 (4,5). For TN C/HRVO eyes, median (Q1,Q3) VA was 48 (23,64) letters at baseline and 56 (35,70) letters at 6 months. Corresponding PT eye values were 57 (42,67) and 57 (43,70) letters. Median (Q1,Q3) injections over 6 months in TN and PT C/HRVO eyes was 4 (4,5). IOI and endophthalmitis rates were consistent with faricimab phase 3 trials. Data collection is ongoing.
Discussion: Early FARWIDE-RVO results support the effectiveness of faricimab for treating BRVO and C/HRVO.

Poster, Clinical Research

66 Faricimab versus Aflibercept for Discharge and Readmission in Neovascular Age-Related Macular Degeneration: A Lesion-Type Stratified, Real-World UK Analysis

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Background: Anti-VEGF treatment improves outcomes in the management of neovascular age-related macular degeneration (nAMD). No real-world data have compared discharge and readmission rates between faricimab and aflibercept, stratified by lesion type.
Methods: A retrospective audit study of 1004 eyes in 912 patients diagnosed with nAMD. Patients received either faricimab or aflibercept. The outcomes assessed were central macular thickness (CMT), best-corrected visual acuity (BCVA), fluid resolution, discharge to community care, and readmission. Lesion types were classified into Type 1, Type 2, and Prepapillary. Statistical analysis used t-tests, chi-square, and appropriate nonparametric tests.
Results: The demographic of the patients in this study consisted of 60.6% of women with participants being on average 76.9 years old. Type 1 lesions had a greater change from baseline CMT, and a greater change in BCVA than Type 2 lesions. Discharge rates from hospital and the average time to discharge from hospital was greater for faricimab (84.1%, 378 days) compared with aflibercept (69.5%, 1048 days, $p<0.0001$). The number of eyes readmitted was lower for faricimab (14.7% vs. 29.1%) and was not different for lesion type ($p=0.96$). The number of injections was not different amongst discharged patients and readmitted patients. Service outcomes, at discharge and readmission, differed by drug but not for lesion type.
Conclusion: Faricimab is associated with higher discharge rates, and discharge earlier than Aflibercept, and fewer readmissions than aflibercept. Lesion type does not appear to independently predict outcomes in service.

Poster, Clinical Research

67 Management Outcomes in Retinal Vasoproliferative Tumours: A Systematic Review

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Introduction: Retinal vasoproliferative tumours (RVPTs) are rare benign retinal lesions associated with cystoid macular oedema, exudative retinal detachment and epiretinal membrane formation. Management strategies are largely derived from small retrospective series, with no clear consensus on optimal treatment. This review synthesises current evidence on anatomical and functional outcomes following RVPT treatment.
Methods: A systematic review was conducted in accordance with PRISMA guidelines. PubMed, Embase, Scopus and Web of Science were searched from inception to January 2025. Of 242 records identified, 24 studies met inclusion criteria. Original clinical studies reporting anatomical and/or visual outcomes were included. Data extraction was performed independently by two reviewers. Risk of bias was assessed using Joanna Briggs Institute tools. Due to heterogeneity in treatment modality and outcome definitions, findings were synthesised narratively.
Results: Twenty-four studies comprising 430 eyes were included. Treatment modalities included cryotherapy, laser photocoagulation, photodynamic therapy, plaque brachytherapy, pars plana vitrectomy and intravitreal pharmacotherapy. Tumour control was achieved in 66–100% of cases, with plaque brachytherapy and vitrectomy-based surgery frequently reporting rates above 80%. Visual stability or improvement occurred in 57–73% of eyes, particularly when the macula was spared at baseline. Secondary RVPTs demonstrated lower control rates and poorer functional outcomes. Common complications included cataract progression, epiretinal membrane formation, and radiation-related changes.
Discussion: Anatomical control of RVPT is generally achievable; however, visual recovery remains inconsistent and is strongly influenced by baseline macular status and tumour type. Prospective, standardised multicentre studies with uniform outcome definitions are required to guide evidence-based treatment selection.

Poster, Clinical Research

68 Evaluation of Compliance with the Agreed AMD Referral Pathway to Ensure Patients Receive Appropriate and Timely Specialist Care

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Introduction: To evaluate if we are meeting the standard criteria for the new wet AMD referrals, that the patients are to be seen within 2 weeks of their referral. Other aims include calculating the number of wet AMD referrals per month, the average number of days from referral to scan, to review, and to calculate the false positive rate for referrals
Method: Retrospective review of patient data from the Fast Track record maintained in our Medical Retina department. Data collected from September 2024 to July 2025. A total of 220 patients were included in the audit.
Results: The mean number of wet AMD referrals per month is 20, with a median of 15. The highest number of patients was recorded on March 25 (n=44) and the lowest number in September 24 (n=4). Out of 220 patients, there were 212 referrals for wet AMD; among them actual number of wet AMD identified was only 62 cases. Incorrect referrals were 150, which resulted in a false positive rate of 68.2%. Among 62 patients, 49 of them (79%) were seen within 2 weeks of the referral.
Discussion: Key issues identified were a high false positive rate, and though the majority of patients seen within 2 weeks, we still do not meet the standard criteria. The following actions are planned:
To provide clear referral guidance/ criteria to the referring source that help in reducing the false positive rate and to increase capacity for triage of referred patients so that the standard criteria can be met.

Poster, Clinical Research

69 Characteristics of Uveitis in European Tertiary Ophthalmology Centres: A Systematic Review and Meta-Analysis

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Introduction: Uveitis is one of the leading causes of preventable visual impairment and shows marked heterogeneity in anatomical distribution, aetiology, management, and outcomes. This systematic review and meta-analysis aims to quantify and summarise pooled estimates of characteristics and patterns of uveitis across European tertiary ophthalmology centres.
Methods: A systematic search of four databases was conducted up to January 15, 2026, in accordance with PRISMA guidelines and a pre-registered protocol. Observational cohort and cross-sectional studies including ≥50 adult uveitis patients managed in European tertiary referral centres were eligible. Risk of bias was assessed using Newcastle–Ottawa Scale and Joanna Briggs Institute tools. Random-effects meta-analyses with logit transformation and restricted maximum likelihood estimation were performed for outcomes reported by at least five comparable studies.
Results: Twenty-seven studies including 30,471 patients were analysed. Anterior uveitis was the most common anatomical subtype (pooled proportion 52.1%, 95% CI: 43.2–60.9%), followed by posterior uveitis (18.9%, 95% CI: 15.9-22.4%), panuveitis (14.4%, 95% CI: 10.7-19.1%), and intermediate uveitis (8.7%, 95% CI: 6.9-10.9%). Etiologically, non-infectious uveitis predominated (44.9%, 95% CI: 39.4-50.5%), followed by idiopathic (34.3%, 95% CI: 29.9-39.0%) and infectious uveitis (23.0%, 95% CI: 20.6-25.5%). All pooled estimates showed substantial heterogeneity (I^2 >90%). Treatment patterns and complication rates were inconsistently reported and therefore summarized descriptively.
Significance: This study provides the first pooled estimates of characteristics of uveitis across European tertiary centres. We find substantial heterogeneity in characteristics of uveitis. The results offer a reference framework for contextualizing single-centre cohorts and identifying regional variation across uveitis care in Europe.

Poster, Clinical Research

70 Beyond the Eye Chart: The Lack of Patient-Centric Outcomes in AMD Gene Therapy

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Introduction: Gene therapy offers a potential shift in Age-Related Macular Degeneration (AMD) care, promising to replace chronic treatment burdens with sustained biological intervention. To support the development of these new treatments, selecting outcome measures that reflect functional patient benefit is pivotal. This review critically evaluates the outcome measures used in AMD gene therapy trials.
Methods: A targeted search of ClinicalTrials.gov identified interventional gene therapy trials for Wet and Dry AMD. Outcome measures were independently reviewed and categorised into five domains: safety, functional, structural, treatment burden, and patient-reported outcomes (PROs).
Results: Of 102 identified trials, 50 met inclusion criteria. Wet AMD research (82%) and early-stage (Phase 1/2) studies (62%) dominate the field. Safety outcomes were reported in 90% of studies, though assessment timeframes varied significantly (4 - 260 weeks). Structural outcomes (82%) favoured retinal thickness/volume. Functional outcomes (94% of trials) relied heavily on Best Corrected Visual Acuity and was the exclusive functional measure in Wet AMD. Notably, PROs only appeared as secondary measures in only 15% of trials.
Discussion: Trials over-rely on BCVA, and neglect other measures of functional vision. This, alongside the scarcity of PRO endpoints, highlights a critical gap in evaluating visual function changes that have meaningful patient benefit.

Poster, Clinical Research

71 Diabetic Macular Oedema Recurrence Rate in a Real-World Anti-VEGF Treated Cohort

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Introduction This study estimated the recurrence rate of macular oedema among treatment-naïve diabetic macular oedema (DMO) eyes that achieved anatomic fluid resolution following intravitreal anti-vascular endothelial growth factor (VEGF) therapy.
Methods: A retrospective analysis of electronic health records and optical coherence tomography (OCT) was conducted across four UK National Health Service centres from 2013-2021. An in-house algorithm segmented retinal layers on OCT volumes. Eligible eyes had DMO at index anti-VEGF treatment and two available post-index OCT observations with total retinal fluid recorded (intraretinal fluid+subretinal fluid). DMO resolution was defined as ≤10 nL of total retinal fluid within the central 3 mm × 3 mm area. Among treatment-naïve eyes achieving resolution, recurrence was defined as subsequent total retinal fluid >10 nL. Recurrence was calculated as events per eye-year at risk.
Results: Of 1,813 treatment-naïve DMO eyes, 841 (46.4%) achieved resolution; among these, 629 (74.8%) experienced ≥1 recurrence. Across follow-up, 1,529 resolutions and 1,155 recurrences were observed. The median time to first resolution was 9.4 months, and the median time to recurrence after first resolution was 3.2 months. The mean number of recurrences per eye was 1.4 (standard deviation=1.4). Total eye-time at risk was 741.2 eye-years (mean=0.9 eye-years), yielding a recurrence rate of 1.6 events per eye-year (95% confidence interval: 1.5, 1.7).
Discussion: DMO recurrence was frequent and occurred soon after resolution following anti-VEGF treatment, with median time to recurrence of approximately 3 months. The high recurrence rate underscores the need for continued monitoring and timely retreatment strategies in patients after initial fluid resolution.

Poster, Clinical Research

72 Two-Year Effectiveness, Durability and Safety of Faricimab in Eyes with nAMD: Results from the UK FARWIDE-nAMD Study

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Introduction: FARWIDE-nAMD is an ongoing retrospective study of electronic health records from faricimab-treated patients treated at 34 NHS sites. Here we summarise 2-year outcomes.
Methods: This analysis includes outcomes for treatment-naïve (TN) and previously treated (PT) eyes with ≥2 years (2Y) of follow-up since faricimab initiation between June 2022 and June 2025.
Results: 4667 patients (5582 patient-eyes; TN=1316[24%]; PT=4266[76%]) completed ≥2Y of follow-up. Median (Q1,Q3) VA in TN eyes was 61 (50,70) letters at baseline and 65 (46,74) letters at 2Y; eyes with baseline VA 35-55 and 56-69 letters gained 5.0 (-11, 15) and 5.0 (-5.2, 11.2) letters, respectively. Mean (SD) injection numbers decreased from 4.7 (0.7) in months 1-6 to 1.8 (1.2) in months 19-24. Last recorded faricimab treatment interval at 2Y was ≥12 weeks in 60.1% of eyes. PT eyes initiating faricimab had been on prior anti-VEGF treatment for a mean (SD) of 3.1 (2.9) years; 82.9% switched from aflibercept 2 mg. Median (Q1,Q3) VA in PT eyes: 69 (57,76) letters at baseline, 68 (54,76) letters at 2Y. Mean (SD) injection numbers decreased from 4.5 (1.0) in months 1-6 to 2.6 (1.3) in months 19-24. PT eyes on pre-faricimab anti-VEGF intervals of 4, 6 or 8 weeks extended their mean (SD) interval at 2Y to 9.1 (4.9), 10.0 (4.5), and 11.0 (5.6) weeks, respectively. IOI and endophthalmitis rates were consistent with faricimab phase 3 trials.
Discussion: Over 2Y, faricimab-treated eyes showed meaningful treatment interval extensions, with visual gains in TN eyes and stable vision in PT eyes. Switching frequently-treated eyes to faricimab resulted in treatment interval extensions. These data support faricimab real-world effectiveness, durability, and safety.

Poster, Clinical Research

73 Real-World Outcomes of Switching Treatment-Resistant nAMD Patients to Aflibercept 8 mg

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Introduction: Aflibercept 8 mg provides higher-dose therapy for nAMD. We evaluated outcomes in treatment-resistant nAMD patients switched from other anti-VEGF agents to aflibercept 8 mg.
Methods: -This retrospective study included 24 eyes from 20 patients with treatment-resistant nAMD. They were previously treated with other anti-VEGF agents. Patients were switched to aflibercept 8 mg and received three 4-weekly loading injections followed by a treat-and-extend regimen. VA and CRT were recorded at baseline, post-loading, and at follow-up. The injection number, injection interval before switching and at the final visit were recorded.
Results: Patients were aged 63-98 years. Mean baseline VA (65 letters) and CRT (343.2 µm) remained stable at the latest visit. Before switching, 42% of eyes received monotherapy with aflibercept 2 mg, faricimab, or ranibizumab, 54% received two and 4% received all three. Before switching, patients received a mean of 38.5 injections on these agents, with 83.3% on 4-weekly and 16.7% on 5–6-weekly intervals. After switching, patients were dry after a mean of 2.5 injections, with 62.5% dry after the loading dose. The mean follow-up period after switch was 9.9 months. At the final visit, treatment intervals improved: 29.2% were on 4-week dosing, 33.3% on 5–6 weeks, 8.3% on 7–8 weeks, and 16.6% on 9 weeks or longer. Mean injection interval after switch was 7.1 weeks.
Discussions: In treatment-resistant nAMD patients, switching to aflibercept 8 mg improved fluid resolution and extended treatment intervals. Using aflibercept 8 mg in this cohort reduced visit frequency, enhanced patient experience and alleviated pressure on busy healthcare services.

Poster, Clinical Research

ABSTRACT MENU

74 Real-World Data on Treatment-Naïve Neovascular Age Related Macular Degeneration (nAMD) Patients Treated with Aflibercept 8 mg

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Purpose: Aflibercept 8mg delivers a higher molar dose than the 2 mg formulation. We assessed real-world outcomes of aflibercept 8 mg for treatment- naïve AMD patients.
Methods: A retrospective analysis included 62 eyes from 61 patients initiated on Aflibercept 8mg. All had three loading injections at 4-weeks apart, followed by a treat-and-extend regimen. VA (ETDRS letters) and CRT were assessed at baseline, at the third injection, post-loading, and at subsequent injection visits. Baseline VA was stratified into ETDRS letters <30, 30-70 and >70. Post-loading intervals and number of injections required to achieve dryness were recorded.
Results: Patient age ranged from 63–98 years (mean 80.8). Mean follow-up was 8.1 months (range 3.2–11.3). Mean baseline VA was 56.8 letters, improving to 60.7 letters at the latest visit. Mean baseline CRT was 414 µm, improving to 306 µm at the latest visit. A mean of 2.2 injections was required to achieve a dry macula, with 82.3% dry post-loading. Following the loading phase, the mean next intended interval was 7.4 weeks. The mean next intended interval at the final visit was 10.4 weeks, with the overall mean interval between injections after the loading phase being 11.2 weeks. At the latest follow-up date, 16.1%, 21%, 8% and 6.5% were on Q10, Q12, Q14 and Q16 week intervals respectively.
Conclusions: Aflibercept 8 mg improved VA and CRT in treatment-naive nAMD patients, with most achieving dryness during or before completion of loading. At a mean follow-up of 8.1 months, 35% achieved ≥12 weeks injection intervals, reducing treatment burden.

Poster, Clinical Research

75 Investigating Outcomes of Treatment with Intravitreal Injection Therapy in Patients with Diabetic Macular Oedema at the Oxford Eye Hospital

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Introduction: Faricimab (Vabysmo®) and aflibercept (Eylea®) are approved therapies for diabetic macular oedema (DMO). Both inhibit vascular endothelial growth factor A (VEGF-A); faricimab additionally targets angiopoietin-2, while aflibercept inhibits VEGF-B and placental growth factor. We compared real-world outcomes of these agents in treatment-naïve DMO patients.
Methods: Retrospective study at Oxford Eye Hospital of treatment-naïve DMO patients initiating faricimab or aflibercept between November 2022 and March 2024. Visual acuity (VA), central subfield thickness (CST), and treatment interval were evaluated at baseline, 6, 12, and 18 months. Linear mixed-effects modelling with subject as random intercept accounted for longitudinal data.
Results: 99 eyes received faricimab and 78 aflibercept; baseline characteristics were comparable (mean age 62.4 vs 62.6, p=0.92). VA improved at 6 months and was maintained to 18 months, with no significant between-group differences. With both agents, CST decreased significantly from baseline to all timepoints (p<0.01). Faricimab achieved greater CST reductions than aflibercept; significant at month 12 (-91.1 µm vs -82.5 µm, p=0.02) and 18 (-107.6 µm vs -85.3 µm, p<0.01, linear mixed-effects model). Treatment intervals were significantly longer with faricimab at 12 months (6 months: 7.2 vs 6.5 weeks, p=0.06; 12 months: 9.8 vs 8.5 weeks, p=0.01; 18 months: 10.3 vs 9.2 weeks, p=0.18). At 18 months, faricimab-treated eyes had received fewer injections on average than aflibercept (10.1 vs 11.0; p=0.04).
Discussion: In treatment-naïve DMO, both agents improved VA and reduced CST. Faricimab was associated with greater CST reduction and fewer injections over 18 months, supporting its effectiveness as first-line therapy.

Poster, Clinical Research

76 Antiphospholipid Antibody Syndrome Presenting as a Vasoproliferative Retinal Tumour in a 12-Year-Old Girl: A Case Report

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Introduction: Vasoproliferative retinal tumours (VPRTs) are rare in children and may indicate underlying systemic disease. We report a case of a 12-year-old girl with a long-standing diagnosis of immune thrombocytopenic purpura (ITP), treated with chronic corticosteroids, who was found to have significant retinal vascular pathology during routine ophthalmic screening. The case highlights the importance of ophthalmic evaluation in uncovering previously unrecognised systemic conditions.
Methods: The patient underwent comprehensive ophthalmic assessment, including fundus examination, optical coherence tomography, and fluorescein angiography (FFA). Systemic investigations were performed to reassess the presumed diagnosis of ITP and to evaluate for vasculitic or prothrombotic disorders. Laboratory testing included autoimmune and thrombophilia panels, with repeat antiphospholipid antibody testing performed more than 12 weeks apart. Ocular management consisted of targeted laser photocoagulation, cryotherapy, and intravitreal dexamethasone implantation.
Results: Fundus examination revealed a right-eye inferior-temporal peripheral VPRT with extensive peripheral retinal ischemia and subretinal exudation extending to the inferior-temporal arcade. FFA demonstrated early perivascular staining with late diffuse interstitial leakage and widespread ischemia. The fovea remained intact, and visual acuity was preserved at 6/6. Systemic work-up showed persistently elevated anticardiolipin IgG antibodies on two occasions more than 12 weeks apart, fulfilling British Society for Haematology criteria for antiphospholipid antibody syndrome (APS). Ocular treatment stabilised the lesion, resolved exudation, and maintained vision at 6/6.
Significance: This case underscores the role of ophthalmic findings in prompting reconsideration of chronic diagnoses and establishing systemic disease. Early recognition and targeted ocular therapy preserved vision, while systemic referral enabled appropriate long-term management of APS.

e-Poster only, Clinical Research

77 An Atypical Clinical Phenotype of Birdshot Chorioretinitis

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Introduction: Birdshot chorioretinitis (BCR) is a rare, symmetrical autoimmune posterior uveitis with a distinctive clinical phenotype and a positive association with HLA-A29. The hallmarks of BCR are oval-shaped, hypopigmented creamy coloured choroid lesions on fundus examination “birdshot spots”, which over time become confluent, atrophic and hypopigmented. The presence of hypo-fluorescent lesions, progressive visual field defects and chorio-retinal atrophy are characteristics of advanced disease. Little is known about pigmentary changes associated with birdshot lesions and therefore poses a topic of research interest.
Optical Coherence Tomography, Indocyanine Green Angiography, Immunological assay (HLA-A29), Fluorescein Fundus Angiogram and Visual Field testing were used to confirm diagnosis and monitor disease progression.
Case: We report a 67 year old gentleman with history of bilateral intermediate uveitis, profound peripheral visual field defects and nyctalopia. He was suspected to have retinal dystrophy due to pigmentary changes in the inferior nasal areas in both fundus and subnormal electrical diagnostic testing results. On clinical examination, his visual acuity was 6/12 bilaterally, minimal anterior segment inflammation (1+ cells) and significant pigmented lesions in the peripapillary inferior nasal areas were noted with macular sparing. Upon wide field imaging, multiple choroidal lesions were noticed which prompted HLA testing. This was positive for HLA-A29 and subsequently diagnosed with end-stage birdshot chorioretinitis. He was managed with oral course of steroids and mycophenolate mofetil to slow the rate of visual deterioration and peripheral progression.
Birdshot lesions found on the fundus are rarely pigmented, we present a case of an atypical phenotype of end-stage birdshot chorioretinitis disease.

e-Poster only, Clinical Research

78 Paraneoplastic Autoimmune Retinopathy as the Initial Manifestation of Invasive Thymoma: A Case Report

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Introduction: Cancer-associated retinopathy (CAR) is a rare type of paraneoplastic autoimmune retinopathy that leads to retinal degeneration due to the autoantibody-mediated destruction of retinal antigens, such as recoverin and enolase, in the presence of an underlying malignancy. It is most frequently associated with small cell lung cancer.
Methods: A 58-year-old male was referred to us with progressive bilateral vision loss on November 8th 2024. History taking showed no previous ocular history (reading glasses only), ocular trauma, known retinal disease or night/colour vision issues. Ophthalmic examination, relevant and systemic investigations were performed, and the patient was followed up for observation.
Results: On examination, the patient had attenuated retinal vessels and mild bilateral optic disc pallor, with no significant lens opacity and clear optical media. Fluorescein angiography showed peripheral retinal ischaemia, microvascular abnormalities and reduced arterial calibre without macular oedema. Optical coherence tomography showed macular thinning bilaterally (right eye more affected) mainly involving the photoreceptor layer. PET CT scan found an anterior mediastinal mass, lymph node biopsy confirmed a diagnosis of thymoma. Thymectomy was performed February 26th 2025. The patient was treated with intravitreal corticosteroid implant.
Discussion/Significance: A rare case of CAR, to our knowledge, with only 5 cases of CAR associated with thymoma (both invasive and benign) reported in our MEDLINE search.

e-Poster only, Clinical Research

79 Exacerbation of Recurrent Vitreous Haemorrhage After Oxaliplatin Infusion in a Patient with Familial Colon Cancer

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Case report introduction: Vitreous haemorrhage is one of the commonest ocular diseases and it requires medical attention to prevent subsequent complications and to provide intervention when needed It is estimated incidence is around 7 cases per 100,000 population. Characterized by a painless, acute vision loss Proliferative diabetic retinopathy, Traumatic injuries, vascular occlusion, inflammation, age related macular degeneration, sickle cell retinopathy, intraocular tumours, are the most known aetiologies behind this haemorrhage However, 2.5-6% of cases remain unknown. The patient is a 36-year-old woman with a longstanding history of migraine since childhood and a family history of colon adenocarcinoma and sensorineural hearing loss.
Case presentation: In March 2017, she presented to the ophthalmology clinic with complaints of floaters. A complete ophthalmic examination revealed only retinal haemorrhages. No additional abnormalities were identified, including retinal neovascularisation, inflammation, retinal tears, retinal detachment, or posterior vitreous detachment. Common systemic causes such as diabetes mellitus, hypertension, and sickle cell anaemia were excluded. There was no history of trauma or anticoagulant use. The haemorrhages resolved spontaneously but recurred several months later, with repeat examination showing identical findings. At that stage, Eales' disease was considered as a possible diagnosis.
Almost a year later, in January 2018, she presented with acute gastrointestinal bleeding. Colonoscopy and subsequent oncology work-up confirmed adenocarcinoma of the sigmoid colon with liver metastases. She underwent surgical resection and commenced neoadjuvant chemotherapy.
By December 2018, she returned with increasing frequency of floaters. Laboratory investigations were unremarkable except for microcytic anaemia. Her chemotherapy regimen included oxaliplatin, a platinum-based agent known to carry a risk of ocular adverse effects. Following multidisciplinary discussion, oxaliplatin was discontinued.
On her most recent ophthalmic examination, visual acuity was 20/25 in the right eye and 20/50 in the left eye using the Snellen chart. There was no refractive error, and the anterior segment and optic disc appeared normal. However, peri-macular haemorrhages were present, along with fibrous tissue around the optic disc and associated neovascularisation.
Discussion: Given the patient's recurrent vitreous haemorrhage with peripheral retinal ischaemia and neovascularisation, a diagnosis of Eales' disease was made. Eales' disease is an idiopathic inflammatory veno-occlusive disorder first described by Henry Eales, characterised by recurrent vitreous haemorrhage and often associated with headache. It remains a diagnosis of exclusion. Optical coherence tomography demonstrated macular changes with an epiretinal membrane, consistent with reported findings in Eales' disease and possible chemotherapy-related toxicity.
Oxaliplatin commonly causes thrombocytopenia but was absent in this case but has also been associated with colour vision impairment and even vision loss. Following cessation of oxaliplatin, the patient's ophthalmic symptoms became less frequent. No immediate intervention was required beyond regular follow-up. Should the condition worsen, management options considered included intravitreal anti-VEGF therapy, panretinal photocoagulation, or vitrectomy depending on severity.
Conclusion: Patients receiving chemotherapy should undergo regular ophthalmic examinations and close monitoring for potential adverse effects. These risks must be discussed thoroughly with patients, and chemotherapy dosage or regimen may be adjusted according to clinical status. When managing individuals treated with oxaliplatin, clinicians should carefully balance the risks and benefits before discontinuing the drug, particularly when ocular symptoms arise.
e-Poster only, Clinical Research

80 Clindamycin Prophylaxis in Paediatric Punctate Outer Retinal Toxoplasmosis

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Introduction: Punctate outer retinal toxoplasmosis (PORT) is a rare manifestation of ocular toxoplasmosis characterised by small, whitish, ill-defined retinochoroid lesions which can result in significant visual disturbance. Regimes containing sulfonamide antibiotics are the mainstay of prophylaxis in patients with ocular toxoplasmosis. Therefore, a significant challenge arises in patients with sulfonamide antimicrobial hypersensitivity. Clindamycin is an antibiotic with an established role in the treatment of ocular toxoplasmosis. In this work, we hypothesised that clindamycin may also be an effective prophylactic agent in selected patients with PORT.
Methods: A nine-year-old White British female who presented with right eye reduced vision (visual acuity 6/18) and macular disturbance was diagnosed with PORT and followed up over 6 years. Disease progression was monitored using fundus photography and optical coherence tomography (OCT). Clindamycin was trialled after the patient exhibited sulfonamide antimicrobial hypersensitivity and disease reactivation had previously occurred whilst on azithromycin.
Results: During four years of ongoing clindamycin prophylaxis the patient's vision has remained stable (latest visual acuity 6/6). Fundus photography and OCT performed in May 2025 showed pigmented scars over the previous areas of active inflammation and more clearly defined retinal architecture indicating resolution of active disease.
Discussion: In this case, clindamycin has proven to be successful in the prevention of reactivation of PORT. Whilst further investigation is needed to establish the most effective prophylactic agents for ocular toxoplasmosis, especially in cases of sulfonamide hypersensitivity, these findings highlight the potential for clindamycin as a novel, viable prophylactic treatment in patients with PORT.

e-Poster only, Clinical Research

81 A Narrow Therapeutic Window: Aggressive Ischaemic Central Retinal Vein Occlusion in a Young Patient with Autoimmune Disease

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Introduction: Central retinal vein occlusion (CRVO) is rare in young adults and warrants investigation for underlying systemic disease. We describe a 19-year-old woman with autoimmune comorbidity who developed rapidly progressive ischaemic CRVO complicated by refractory neovascular glaucoma (NVG), resulting in severe unilateral visual loss.
Methods: We describe the clinical presentation, imaging findings, systemic investigations, and management of a 19-year-old woman who initially presented with sudden left-sided visual disturbance, headaches and reduced depth perception. Examination demonstrated a left RAPD and CRVO. Early imaging showed no macular oedema, and MRI of the brain and orbits was normal. Blood tests revealed mildly raised inflammatory markers and positive Scl-70 antibodies, with a background of psoriatic arthritis under Rheumatology review.
Results: Subsequent assessment demonstrated progression with macular and optic disc oedema, consistent with ischaemic CRVO. Anti-VEGF therapy was discussed but delayed. Three months after initial presentation, she re-presented acutely with painful visual deterioration and markedly raised intraocular pressure. Examination revealed extensive iris and angle neovascularisation with advanced secondary angle closure. Despite emergency anti-VEGF injections, pan-retinal photocoagulation, maximal topical and systemic intraocular pressure-lowering therapy, and three sessions of cyclodiode laser, pressure control remained challenging. Visual acuity in the affected eye deteriorated to hand movements only, while the fellow eye remained preserved.
Discussion: This case illustrates the aggressive course that ischaemic CRVO may take in young patients with autoimmune disease and highlights the narrow therapeutic window for preventing neovascular complications. Early recognition, prompt anti-VEGF therapy and close multidisciplinary follow-up are essential to reduce irreversible visual loss.

e-Poster only, Clinical Research

82 Branch Retinal Artery Occlusion in a 19-Year-Old Female Using the Combined Oral Contraceptive Pill

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Introduction: Branch retinal artery occlusion (BRAO) is rare in young adults. Combined oral contraceptive pills (COCPs) are recognised to increase thromboembolic risk through pro-thrombotic and vascular mechanisms, yet ocular vascular complications remain infrequently highlighted during counselling and routine clinical practice.
Methods: A retrospective case review was undertaken of a 19-year-old female presenting to eye casualty with acute visual disturbance. Clinical examination, multimodal retinal imaging, automated visual field testing, neuroimaging, cardiac assessment and comprehensive systemic investigations were analysed.
Results: The patient described sudden, complete loss of vision in the right eye lasting approximately three minutes, followed by a persistent superior hemifield defect evolving into an inferior dark crescent. Fundus photography demonstrated emboli within two inferior retinal arterial branches with associated retinal oedema and ischaemia. Visual field testing confirmed a superior hemifield defect, and macular optical coherence tomography showed inner retinal layer hyperreflectivity consistent with acute retinal ischaemia. Visual acuity was 6/6 bilaterally at presentation. Extensive stroke work-up including CT/CTA, MRI brain, transthoracic echocardiography, electrocardiography and hypercoagulable screening was unremarkable. Fluorescein angiography excluded Susac syndrome and other inflammatory occlusive vasculopathies. The patient had been taking a COCP for 18 months for migraine management without aura, with no symptomatic benefit; COCPs are not licensed for the treatment of migraine.
Discussion: This case demonstrates BRAO as a potential thromboembolic complication associated with COCP use in young women without traditional vascular risk factors. Women prescribed COCPs should be counselled regarding thromboembolic risks, including rare but potentially sight-threatening ocular vascular complications.

e-Poster only, Clinical Research

83 Post-COVID-19 Barriers to Diabetic Retinopathy Screening Attendance: An Updated Systematic Review

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Introduction: Diabetic retinopathy (DR) is a preventable cause of vision loss; with screening, there is the capability to recognise and treat the condition early. However, screening compliance remains sub-optimal, and the COVID-19 pandemic caused widespread disruptions to the screening programme. This review aims to update prior systematic reviews to identify barriers that remain, as well as identify new barriers that may have occurred due to the pandemic. Following the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) 2020 guidelines, we searched seven databases (January 2020-July 2025) for English language primary studies on DR screening non-attendance, yielding 16 relevant studies across diverse regions. Key barriers fell into patient-related, health system, and environmental categories. Although there was evidence to suggest the same barriers remained, there is evidence to suggest the pandemic exacerbated prior barriers and introduced new barriers. These findings suggest the need for context-specific interventions to improve DR screening in the post-pandemic era.

e-Poster only, Clinical Research

POSTER ABSTRACTS

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84	**RAPID FIRE** Patient Reported Outcome Measures 1 Year After Uveal Melanoma Treatment	**Catharine Kwok**: West Hertfordshire NHS Trust, Watford, UK.	CR
85	Targeting Semaphorin 3 Signalling Promotes Reparative Angiogenesis in Retinopathy	**Aya Sultan**: UCL Institute of Ophthalmology, London, UK.	LR
86	Treatment of Neovascular Complications of Retinoblastoma with Aflibercept: A 4-Year Experience	**Aye Thi Han**: Ophthalmology Department, Birmingham Children Hospital, Birmingham, UK.	CR
87	A History of Ocular Surrogates: The Evolution of Physical Eye Models in Ophthalmic Teaching	**Daniel Josef Lindegger**: Universirt College London, London, UK.	CR
88	Withdrawn		
89	Small Choroidal Melanoma Recurrence After Plaque Radiotherapy: Influence of Scleral Dose and Tumour Characteristics	**Pragya Saini**: Moorfields Eye Hospital NHS Trust, London, UK.	CR

84 Patient Reported Outcome Measures 1 Year After Uveal Melanoma Treatment

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Introduction: Improved survival in uveal melanoma has increased focus on functional and psychosocial outcomes. We assessed contemporary patient reported outcome measures one year after treatment.
Methods: This retrospective, cross-sectional, single-centre study included consecutive patients who underwent uveal melanoma treatment between June and December 2023. One year after treatment, patients completed validated EORTC QLQ-C30 and QLQ-OPT30 questionnaires assessing general health, ocular symptoms, functional status, psychosocial impacts and quality of life over the preceding week. Scores were analysed and compared between treatment modalities.
Results: 88% (130/148) of eligible patients participated. Treatments included plaque brachytherapy (50%), proton beam therapy (27%) and enucleation (23%).
In QLQ-C30, overall health and quality of life were high (5.49/7 and 5.69/7, respectively), with fatigue the most severe symptom (1.92/4). In QLQ-OPT30, worry about metastases scored highest (2.26/4). Functional difficulties included night driving (2.00/4), walking in crowds (1.72/4) and reading (1.71/4). Prominent ocular symptoms were dryness (1.81/4) and watering (1.71/4).
Compared with brachytherapy, proton beam therapy was associated with greater visual symptoms, including floaters ($p=0.021$) and distortion ($p=0.038$). Enucleated patients experienced more watering and discharge (both $p<0.001$) and functional impairment, particularly judging distances ($p=0.022$) and navigating crowded environments ($p<0.001$), than those with brachytherapy. Reading difficulties were lower following enucleation than proton beam therapy ($p=0.010$).
Discussion: Overall health and quality of life were high one year after uveal melanoma treatment. Persistent challenges included night driving and worry about disease recurrence. Symptom burden varied by treatment modality. These findings highlight targets for improving patient experience through supportive care and emerging treatments.

***Rapid-Fire**, Clinical Research*

85 Targeting Semaphorin 3 Signalling Promotes Reparative Angiogenesis in Retinopathy

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Introduction: Restoring physiological revascularisation while preventing pathological neovascular tuft formation remains a central challenge in retinopathy treatment. Retinopathy of prematurity (ROP) is a leading cause of neonatal blindness, characterised by hyperoxia-induced vascular regression and subsequent pathological neovascularisation. Although anti-VEGF-A therapy is standard, frequent treatment failure and recurrence highlight the need for alternative therapeutic strategies.
Methods: We used genetically modified mouse models of physiological retinal angiogenesis and oxygen-induced retinopathy (OIR) to investigate the role of class 3 semaphorins (SEMA3s) in vascular growth, neovascular niche modulation, and endothelial junction formation.
Results: Inhibition of SEMA3 signalling enhanced retinal revascularisation and remodelled the neovascular niche in hypoxic retinas, shifting angiogenesis from pathological neovascularisation towards vascular repair. Loss of SEMA3A or SEMA3F increased endothelial cell density during physiological angiogenesis, whereas SEMA3E loss suppressed neovascular tuft formation and promoted reparative angiogenesis in hypoxic retinas. Mechanistically, SEMA3s crosstalk with VEGF signalling, with vascular endothelial growth factor (Vegfa) and hypoxia-inducible factor-1Î± (Hif1Î±) upregulated during both physiological and pathological angiogenesis. SEMA3s deficiency also regulated endothelial tight and adherent junctions formation.
Discussion/Significance: These findings identify SEMA3s as critical regulators of retinal vascular regeneration that operate independently of Vegfa expression. Targeting SEMA3 signalling may provide a novel therapeutic approach to promote reparative angiogenesis while limiting pathological neovascularisation in ROP and other ischemic vascular diseases.

Poster, Laboratory Research

86 Treatment of Neovascular Complications of Retinoblastoma with Aflibercept: A 4-Year Experience

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Introduction: Intra-arterial (IAC) and intra-vitreal chemotherapy (IVitC) have improved globe salvage rates for advanced intra-ocular retinoblastoma (Rb). However, these modalities have also increased the incidence of chorio-retinal ischemia and neovascular complications.
Methods: Retrospective review of 22 patients (Mean age: 5.2 years; Range: 2–14) treated between June 2022 and January 2026. Data collection included detailed RB1 genetic status, ICRB grouping, aflibercept/melphalan dosing, and the timing of adjuvant 532 nm pan-retinal photocoagulation (PRP).
Results: The cohort comprised Group D (n=16), Group E (n=5), and Group C (n=1) eyes. Genetic analysis revealed a high complexity: 41% germline (including de novo and sporadic), 27% non-germline, 14% mosaic variants (including a complex chromosome 13 karyotype), and 18% with no identifiable RB1 gene mutation. Aflibercept was administered as monotherapy (n=9) or combined with melphalan (n=13), with a range of 1–8 injections. 54% (n=12) of patients received adjuvant PRP. The secondary enucleation rate was 27% (6/22). Notably, 83% (5/6) of enucleated patients had received combined aflibercept/melphalan therapy, predominantly in Group D eyes (n=4). The interval from treatment to enucleation ranged from 5 to 28 months. Patients able to undergo post-injection PRP had more favourable outcomes.
Discussion: Aflibercept is a feasible adjunct for managing neovascular complications occurring early or late after completion of active Rb treatment. The higher enucleation rate in combined therapy cases likely reflects eyes with early neovoascular complications and those with more aggressive baseline disease. The ability to perform PRP following injection is a positive prognostic indicator for continued monitoring and globe salvage.

Poster, Clinical Research

87 A History of Ocular Surrogates: The Evolution of Physical Eye Models in Ophthalmic Teaching

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Introduction: The teaching of ocular anatomy and surgical technique has long relied upon physical models to circumvent the ethical and practical limitations of using cadaveric tissue. This review traces the history of these surrogates, from early anatomical waxes to modern synthetic analogues.
Methods: A historical analysis was conducted of significant ophthalmic teaching models from the 18th century to the present day, examining their materials, manufacturing techniques, and the relationship between model design and contemporary surgical practice.
Results: The earliest models, such as the exquisite wax preparations of the Florentine school, were primarily dedicated to static anatomical demonstration. The advent of the ophthalmoscope and the need for refractive training spurred the development of mechanical models with removable lenses and adjustable axes in the late 19th century. The mid-20th century saw the introduction of polymethyl methacrylate and silicone for scleral shells and intraocular manipulation. The most significant leap occurred with the development of high-fidelity synthetic laminates mimicking the capsular bag and vitreous, designed specifically for phacoemulsification training.
Discussion: The evolution of the eye model reflects a continuous refinement of purpose: from passive anatomical display to active surgical simulation. The drive for higher fidelity has been in lockstep with the increasing complexity of microsurgical techniques. While digital simulation is advancing, the haptic feedback and tissue-handling provided by modern composite physical models ensure their continued and essential role in the structured training of ophthalmologists.

Poster, Clinical Research

89 Small Choroidal Melanoma Recurrence After Plaque Radiotherapy: Influence of Scleral Dose and Tumour Characteristics

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Introduction: The optimal management of small choroidal melanoma remains debated, particularly the intervention timing versus observation. Factors associated with local recurrence in small tumours following plaque brachytherapy are not well characterised. This study evaluated tumour control and examined predictors of local recurrence following plaque brachytherapy for small choroidal melanoma.
Methods: We conducted a retrospective single centre study of 183 consecutive patients with small choroidal melanoma treated with ruthenium plaque brachytherapy between January 2015 and December 2023. Demographics (age, sex, ethnicity), tumour characteristics (thickness, basal diameter, plaque size), scleral radiation dose were analysed, and recorded. Local recurrence was stratified by scleral dose (100–199Gy vs ≥200Gy), and subsequent management (repeat plaque, proton beam radiotherapy, enucleation) was documented.
Results: Sixteen of 183 tumours (8.7%) developed local recurrence. Recurrence rates were 6.2% (7/113) in the 100–199Gy group and 12.9% (9/70) in the ≥200Gy group (p=0.177). Neither tumour thickness (p=0.996) nor basal diameter (p=0.752) predicted recurrence. Patients aged 51–80 years accounted for 12/16 (75%) recurrences. Notched 20-mm plaques were used in 11/16 (68.8%) recurrences. Secondary interventions differed significantly between dose groups (p=0.036): enucleation was required in 7/9 (77.8%) recurrences after ≥200Gy compared with 1/7 (14.3%) after 100–199Gy. Two eyes received >350Gy, and neither developed local recurrence. Median time from primary to secondary intervention was 28.5 months.
Discussion: Local recurrence after plaque brachytherapy for small choroidal melanoma is uncommon. Escalating scleral dose to ≥200Gy did not reduce recurrence and was associated with higher enucleation rates, suggesting routine dose escalation above 200Gy may not be justified.

Poster, Clinical Research

ABSTRACT MENU

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91	**RAPID FIRE** Nurse-led Optos Screening for Retinopathy of Prematurity	**Venughanan Manikavasagar**: University Hospitals of Derby and Burton NHS Foundation Trust, Derby, UK.	CR
92	**RAPID FIRE** Neurofilament Light Chain as a Biomarker of Treatment Response in Idiopathic Intracranial Hypertension: A Longitudinal Study from the Idiopathic Intracranial Hypertension Weight Trial	**Michael Lowe**: Birmingham Neuro-Ophthalmology, University Hospitals, Birmingham, UK.	CR
93	Evaluating Outcomes of Advanced Clinical Practitioner (ACP)-Led Paediatric Ophthalmology Clinics: A One-Year Audit	**Bhumika Goel**: St George's University Hospital NHS Foundation Trust, London, UK.	CR
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95	Nerf Gun–Related Ocular Trauma: Risk to Vision, Social Impact, and Implications for Emergency Eye Care	**Chloe Robson**: Maidstone and Tunbridge Wells NHS Trust, Maidstone, UK.	CR
96	Risk Factors Associated with Reactivation of Retinopathy of Prematurity (ROP) Following Primary anti-VEGF Therapy	**Joel Jong**: Oxford University Hospitals, Oxford, UK.	CR
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98	Gaze Responses in Children with Cerebral Palsy, Cerebral Visual Impairment, and Severe Intellectual and Developmental Disabilities	**Naomi Ferziger**: Department of Health Professions, Ono Academic College, Kiryat Ono, Israel.	CR
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107	Improving the Diagnostic Accuracy of Papilloedema Referrals (the DIPP Study): Insights from General Practitioners, Optometrists, and Ophthalmologists	**Blanca Sanz-Magallon**: Bristol Medical School, University of Bristol, Bristol, UK.	CR *DP*
108	Paediatric Frosted Branch Angiitis Following Atypical Bilateral Anterior Uveitis	**Muna Ali**: City St George's University of London, London, UK.	CR
109	Withdrawn		

ABSTRACT MENU

90 Calcitonin Gene-Related Peptide Induces Headache Attacks in People with Idiopathic Intracranial Hypertension

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Introduction: Idiopathic intracranial hypertension (IIH) is characterised by raised intracranial pressure (ICP) and disabling headaches that are typically migraine-like. Calcitonin gene-related peptide (CGRP) is central to migraine biology, but its role in provoking IIH headache and relationship to ICP and cerebrovascular dynamics remained uncertain. We evaluated whether CGRP induced IIH headache and affected intracranial physiology.
Methods: In a randomised, double-blind, placebo-controlled, two-way crossover trial, women with IIH and no prior migraine received a 20-min intravenous infusion of CGRP (1.5 μg/min) or placebo on separate visits. The primary outcome was the difference in the proportion developing a headache within 12 h. Secondary outcomes included headache intensity area under the curve (AUC), headache characteristics, and baseline-adjusted changes in ICP, vital signs, and cerebrovascular haemodynamics.
Results: Results Seventeen participants (mean [SD] age 26.7 [6.4] years) completed both visits. Headache occurred in 12/17 (71%) after CGRP versus 3/17 (18%) after placebo (risk difference 53%, 95% CI 26–79; p=0.004). Headache intensity AUC was greater following CGRP (p=0.016). The mean ICP remained unchanged, whereas ICP amplitude increased significantly after CGRP (p=0.005) suggesting reduced intracranial compliance. CGRP increased heart rate and cerebral oxygenation indices and reduced mean arterial pressure and middle cerebral artery velocity (all p<0.05).
Conclusion: CGRP reliably provoked migraine-like IIH headaches and increased ICP pulse amplitude without raising mean ICP. These findings support a mechanistic role for CGRP in IIH headache and justify evaluation of CGRP-pathway therapies in this population.

***Rapid-Fire**, Clinical Research*

91 Nurse-led Optos Screening for Retinopathy of Prematurity (ROP)

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Introduction: The demands of ROP screening on the paediatric ophthalmology service have been sought to be alleviated by retinal imaging modalities, e.g. Retcam. We aimed to determine the accuracy of grading images taken for ROP screening using the Optos California, and the feasibility of a trained neonatal nurse acquiring images of sufficient quality.
Methods: Infants eligible for ROP screening at the Royal Derby Hospital were recruited into this prospective cohort study. Optos photo-screening examinations were completed by a trained neonatal nurse. Coincidental detailed ophthalmological examination was performed by an experienced paediatric ophthalmologist using binocular indirect ophthalmoscopy (BIO) with scleral depression. Two masked expert retinal specialists evaluated the fundus photographs for presence/absence of ROP, zone and stage of disease, presence/absence of plus disease, and quality of images. Findings were compared with results of the BIO examination to determine sensitivity, specificity, and positive and negative predictive value (PPV and NPV).
Results: Optos and BIO examinations of the retina were performed on 100 eyes of 50 consecutive premature infants. Grader 1 reported good/fair image quality in 94% of images; grader 2 in 98%. The sensitivity and specificity of detecting ROP on Optos images were 66.7% and 96.9% for grader 1, and 61.1% and 96.9% for grader 2. The PPV and NPV were 92.9% and 82.6% for grader 1, and 92.3% and 80.3% for grader 2.
Discussion: Nurse-led Optos photo-screening had insufficient sensitivity to be recommended a substitute for BIO in ROP screening. It should be regarded an adjunct, rather than a replacement of BIO in routine screening.

***Rapid-Fire**, Clinical Research*

ABSTRACT MENU

92 Neurofilament Light Chain as a Biomarker of Treatment Response in Idiopathic Intracranial Hypertension: A Longitudinal Study from the Idiopathic Intracranial Hypertension Weight Trial

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Introduction: In idiopathic intracranial hypertension (IIH) cross-sectional studies have demonstrated elevated neurofilament light chain (NFL, a biomarker of axonal loss) compared to healthy controls, correlating with papilloedema severity. We aimed to longitudinally measure cerebrospinal fluid (CSF) NFL and caspases (enzymes involved in neuronal apoptosis) in IIH to explore pathophysiological mechanisms of raised NFL and correlations with measures of treatment response.
Methods: In the IIH: Weight Trial, participants (females with IIH and active papilloedema, aged 18-55, BMI >35) were randomised to bariatric surgery or community weight intervention (CWI). Primary outcomes were weight and intracranial pressure (ICP), at baseline and 12 months. Secondary outcomes included optical coherence tomography peripapillary retinal nerve fibre layer thickness (RNFL). We analysed CSF for NFL and caspase levels by ELISA at baseline and 12 months.
Results: At baseline, NFL levels correlated positively with RNFL (r=0.323, p=0.045, n=40). The change in RNFL from baseline to 12 months positively correlated with change in NFL (r=0.432, p=0.01, n=35). There was no correlation between NFL and caspase 3 or 8 levels, but there was a positive association between NFL and caspase 2 at baseline (r=0.480, p=0.006).
Discussion: We found that NFL correlated with the degree of papilloedema (assessed by RNFL), and reduction in RNFL with effective treatment correlated with reductions in NFL. This suggests NFL can act as a biomarker of treatment response in IIH. The lack of association with caspase 3 or 8 may point away from neuronal apoptosis as a mechanism of increased NFL in IIH.

***Rapid-Fire**, Clinical Research*

93 Evaluating Outcomes of Advanced Clinical Practitioner (ACP)-Led Paediatric Ophthalmology Clinics: A One-Year Audit

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Introduction: NHS paediatric ophthalmology services face increasing demand and significant workforce shortages, with a projected loss of one quarter of consultants in the next five years. Advanced Clinical Practitioners (ACPs) have been identified as a key workforce solution. ACP-led paediatric ophthalmology clinics were introduced at Bradford Royal Infirmary in 2023 to improve capacity while maintaining care quality. This audit evaluates outcomes from the first year of ACP-delivered clinics and validates a triage matrix designed to ensure appropriate patient allocation.
Methods: A retrospective audit was undertaken of all patients attending ACP-led clinics between March 2024 and February 2025. Data included appointment type, diagnosis, discharge outcome, follow-up plan, and need for consultant input (face-to-face or remote image review). Standards were set to reflect expected progression over two six-month periods. Cases lacking follow-up data, post-operative visits, and patients aged ≥16 were excluded.
Results: A total of 279 patients were reviewed. Across the two audit periods, 84.6% and 87.5% of new patients, and 90.2% and 92.9% of follow-up patients, were managed independently by the ACP - exceeding target standards. Overall, 37.6% were discharged, including 10.6% placed on Patient-Initiated Follow-Up pathways. Only 14.0% required consultant appointments and 11.1% needed remote image review. Telephone consultations supported discharge in 77.5% of relevant cases. Most discharges related to chalazion, blepharokeratoconjunctivitis, allergic keratoconjunctivitis, and disc monitoring.
Conclusion: ACP-led paediatric ophthalmology clinics safely manage the majority of cases without consultant involvement, supporting service efficiency and workforce sustainability. Formal consultant time for remote review and expansion of independent prescribing rights for orthoptists would further enhance service effectiveness.

Poster, Clinical Research

ABSTRACT MENU

94 Ophthalmic Morbidity in Posterior Fossa Tumours: A 25 year Retrospective Review

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Purpose: Posterior fossa tumours commonly present in childhood and frequently involve visual pathways and ocular motor structures. In this study we evaluated the prevalence and pattern of ophthalmic findings in a tertiary neuro oncology cohort.
Methods: Retrospective review of approximately 110 children and young adults diagnosed between 2000–2025 and managed jointly by the Paediatric Ophthalmology and Neuro Oncology multidisciplinary team. Histology's included Pilocytic astrocytoma (~40%), Medulloblastoma (~35%), and Ependymoma (~10%), with smaller numbers of other tumours. Around 65–70% were midline/fourth ventricular. Documented pre and post operative ophthalmic findings were analysed; cases lacking ophthalmic data were excluded.
Results: Mean age at diagnosis was within the first decade of life. Pre operative ophthalmic abnormalities were present in approximately 35-40%. Papilledema was the most common sign, predominantly in midline lesions associated with obstructive hydrocephalus. Preexisting strabismus occurred in a small subset of patients.
Post operatively, around 40–45% had persistent or new ophthalmic sequelae. Ocular motility disorders were the most frequent, including strabismus, gaze palsy and nystagmus. Cranial nerve palsies (III, IV, VI) were observed more often than internuclear ophthalmoplegia. Papilledema typically resolved following tumour treatment, with persistent disc swelling in only a very small minority of patients. Patients with medulloblastoma had higher rates of cranial neuropathy compared with those with low grade gliomas.
Conclusions: Nearly half of patients with posterior fossa tumours experience significant ophthalmic morbidity, particularly ocular motility disturbance. Early ophthalmic assessment and structured longitudinal follow up should be embedded within paediatric neuro oncology pathways to optimise visual and functional outcomes.

Poster, Clinical Research

95 Nerf Gun–Related Ocular Trauma: Risk to Vision, Social Impact, and Implications for Emergency Eye Care

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Background: Nerf guns are widely perceived as safe recreational toys; however, projectile-related ocular injuries are increasingly presenting to Emergency Departments (A&E). While often considered minor, these injuries carry potential risk of acute and, in some cases, permanent visual impairment. We evaluated ocular morbidity, risk to vision, social consequences, and implications for emergency eye care provision.
Methods: A retrospective review was conducted of patients presenting to A&E over a six-month period with Nerf projectile -related eye injuries. Data collected included demographics, presenting visual acuity (VA), examination findings, intraocular pressure, management, follow-up requirements, and documented impact on school or work attendance.
Results: Seven patients aged 6–46 years presented with unilateral ocular trauma within the study period. Presenting VA ranged from counting fingers to 6/6–, demonstrating risk of significant acute visual reduction. Traumatic hyphaema was the most common diagnosis (6/7), frequently associated with anterior uveitis and requiring close monitoring due to the risk of secondary glaucoma and further vision loss. Posterior segment involvement occurred in one case (commotio retinae), and one patient required investigation for suspected traumatic optic neuropathy. All patients required urgent ophthalmology assessment, with several requiring multiple follow-up visits (up to six). Injuries resulted in absence from school or work due to visual disturbance, activity restriction, and repeat appointments.
Conclusion: Nerf gun projectiles can cause clinically significant ocular trauma with potential threat to vision, necessitating urgent specialist care and serial monitoring. Despite generally favourable outcomes, these preventable injuries pose real risk to eye health, disrupt education and employment, and create avoidable demand on emergency eye care services.

Poster, Clinical Research

ABSTRACT MENU

96 Risk Factors Associated with Reactivation of Retinopathy of Prematurity (ROP) Following Primary anti-VEGF Therapy

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Introduction: Intravitreal anti-VEGF therapy is increasingly used as primary treatment for retinopathy of prematurity (ROP) but reactivation can occur which requires cautious monitoring and timely secondary intervention. Here, we evaluate potential risk factors for disease reactivation.
Methods: A retrospective audit of all eyes that received primary treatment with intravitreal injection of bevacizumab (0.16 or 0.32 mg) for ROP at Oxford University Hospitals from 2009 to 2025. Data collected included demographics, ROP grading at the time of treatment, neonatal and maternal risk factors, and treatment outcomes. Longitudinal ultra-widefield imaging was used to estimate the extent of vascularised retina at baseline (time of treatment) and 8 weeks post-treatment.
Results: 138 eyes of 69 neonates (67% male : 33% female) that received primary bevacizumab for ROP were included. Reactivation requiring further treatment occurred in 29% of eyes. Potential risk factors associated with reactivation included younger age ($p=0.02$), lower weight ($p=0.02$) and Zone I disease ($p=0.01$) at baseline, smaller extent of vascularised retina at 8 weeks post-treatment ($p<0.01$), history of intraventricular haemorrhage or hydrocephalus (both $p<0.01$), and chorioamnionitis during pregnancy ($p=0.05$). Gender, gestational age, birth weight, length of oxygen supplementation, ROP stage, necrotising enterocolitis, jaundice, and steroid use were not significantly associated with reactivation.
Discussion: Our rate of ROP reactivation after bevacizumab therapy is consistent with those reported in the literature. ROP reactivation appears to be associated with earlier, more posterior disease presentation and correlate brain haemorrhage, suggesting potential aetiological link. Moreover, the extent of retinal vascularisation may predict ROP reactivation risk.

Poster, Clinical Research

97 Challenges in the Diagnosis and Monitoring of Paediatric Idiopathic Intracranial Hypertension

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Introduction: Paediatric idiopathic intracranial hypertension (IIH) is a potentially sight-threatening condition. In children, definitive investigation and objective monitoring are frequently limited by feasibility (age/cooperation, tolerance of tests and procedures). We audited our service to quantify these challenges and describe ophthalmic outcomes.
Methods: Paediatric idiopathic intracranial hypertension (IIH) is a potentially sight-threatening condition. In children, definitive investigation and objective monitoring are frequently limited by feasibility (age/cooperation, tolerance of tests and procedures). We audited our service to quantify these challenges and describe ophthalmic outcomes. Methods Retrospective service evaluation of patients aged <18 years managed as IIH within our service. Extracted data included demographics, presenting symptoms, neuroimaging, lumbar puncture (LP) opening pressure and cerebrospinal fluid (CSF) findings, visual acuity (VA), papilloedema severity (Frisén grade), optical coherence tomography (OCT) retinal nerve fibre layer (RNFL) thickness, visual fields (VF), treatment and follow-up.
Results: Twelve children were included (67% female); median age was 13 years (range 5–17). Headache was documented in all cases. Papilloedema improved in 92%, with mean Frisén grade reducing from 2.25 at baseline to 0.67 at last follow-up; 42% resolved to grade 0. Mean OCT RNFL reduced from 157.7 µm to 119.4 µm in the right eye (-38.3 µm) and from 157.3 µm to 116.6 µm in the left eye (-40.7 µm). VA was preserved (worst eye 6/9; all others ≥6/6). Eleven children were >7 years; VF was attempted in 73% (8/11) and usable MD values were recorded in 64% (7/11), with mild loss where measurable (mean MD -1.86 dB right, -1.62 dB left). Neuroimaging demonstrated supportive 'soft signs' in 50%. LP opening pressure was numerically recorded in 67% (median 28.75 cm H□O); LP attempts failed in 17% and LP was performed elsewhere in 17%. Acetazolamide was used in 83% and topiramate in 42%; no procedures were performed. Median follow-up was 3.18 months.
Discussion/Significance: Structural outcomes were reassuring and VA remained good under medical management. Key challenges were incomplete LP data and limited feasibility/reliability of perimetry, constraining objective functional assessment in paediatric IIH.

Poster, Clinical Research

ABSTRACT MENU

98 Gaze Responses in Children with Cerebral Palsy, Cerebral Visual Impairment, and Severe Intellectual and Developmental Disabilities

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Introduction: Cerebral visual impairment (CVI) is a leading cause of visual disability in children with cerebral palsy (CP) and severe intellectual and developmental disabilities (IDD). Assessing residual vision is challenging yet critical for enhancing communication and interaction. This study examined gaze responses to unimodal versus bimodal sensory stimuli to determine if multisensory integration enhances visual engagement.
Methods: Forty children (mean age 8 years, 3 months) with spastic or dyskinetic CP (GMFCS, MACS, and CFCS level V) and severe IDD participated in an experimental-observational study. Participants were divided into CVI (n=20) and no visual impairment (n=20) groups. In a darkened room, children were presented with unimodal (light, auditory, tactile) and bimodal (visual-auditory, visual-tactile) stimuli. Standardised video microanalysis assessed gaze frequency, duration, and latency.
Results: Compared with those with no visual impairment, children with CVI exhibited significantly longer gaze latency to static visual stimuli ($p<0.05$) and shorter overall gaze duration ($p=0.005$). However, the CVI group demonstrated distinct sensory enhancement, responding more frequently to bimodal stimuli than to unimodal non-visual stimuli ($p=0.014$). Additionally, gaze duration was longer for bimodal visual-auditory compared with unimodal auditory stimuli ($p=0.005$) within the CVI group.
Discussion: Bimodal sensory stimulation can enhance visual engagement in children with CVI, CP, and severe IDD, despite slower visual processing. Findings support the implementation of multisensory environmental adaptations to optimise visual responses and functional participation in this complex paediatric population. Consequently, we suggest establishing coordinated treatment plans between ophthalmologists and occupational therapists.

Poster, Clinical Research

99 Ocular Manifestations of Children with Atopic Dermatitis

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Aim: To examine the incidence of ocular abnormalities in children with atopic dermatitis (AD) in Saudi Arabia and its association with the severity of AD.
Methods: This is a cross-sectional study on 50 children with AD who were between 5 and 16 years of age. The severity of AD was evaluated using the SCORing Atopic Dermatitis (SCORAD) index. All the children underwent slit lamp exams, visual acuity assessment, intraocular pressure measurement, and corneal topography. The children were considered to have an ophthalmic abnormality if one or more of the following signs were present: glaucoma, keratoconus suspicion, in addition to lid, conjunctival, corneal, lenticular, or retinal abnormalities.
Results: Based on the SCORAD severity index, 14% of children had mild AD (7/50), 38% had moderate AD (19/50), and nearly half had severe AD. More than half the children exhibited facial involvement, and half had peri-orbital signs. The mean SCORAD index was 35.75. The mean age was 10.48±3.6y, and the cohort showed a slight male predominance (54% males). Both eyes of the 50 children in the cohort were studied. Based on the ocular examinations, 92% of the patients showed ocular abnormalities: lid abnormalities (27/50) followed by keratitis (22/50). Four patients had moderate risk for keratoconus in one eye and eight patients were suspected to have keratoconus. However, SCORAD severity index was not associated with age, sex, or the number or presence of ophthalmic abnormalities.
Conclusion: This is the first study in Saudi Arabia to evaluate the prevalence of ocular manifestations in children with AD. The results indicate that the majority of children with AD have ocular abnormalities that mainly include lid abnormalities. Based on these findings, larger scale studies are needed to affirm whether regular screening for ophthalmic abnormalities would be beneficial for children with AD in terms of early intervention and prevention of sight-threatening complications."

Poster, Clinical Research

ABSTRACT MENU

100 Measuring Meaningful Outcomes: Perspectives on Novel Virtual Reality Tests of Real-World Functional Vision from Patients with Glaucoma, Age-Related Macular Degeneration, and Inherited Optic Neuropathies

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Introduction: Meaningful endpoints are needed to accelerate clinical trials. We have developed a virtual reality [VR] "supermarket shopping" test, designed to objectively quantify the everyday challenges that many patients report facing. In this qualitative study, we captured the experiences of people with glaucoma, age-related macular degeneration [AMD] and inherited optic neuropathies [ION] using this VR test for the first time.
Methods: People with glaucoma (n=6; 63 – 74 years), AMD (n=7, 68 – 84 years), or ION (n=5, 18 – 64 years) were invited to try the VR shopping test as part of a facilitated focus group. They were asked to express their views on conventional clinic testing (acuity, perimetry) and the VR test. Thematic analyses were conducted based on the recorded transcripts.
Results: Four key themes were identified: (1) All participants identified a mismatch between conventional vision tests and lived experience; (2) Several participants wanted tests which could better communicate to others their 'hidden disability'; (3) Three real-world tasks were identified as being particular challenges for participants - navigation through busy crowds, face recognition, and reading in poor lighting; (4) Although all participants were able to do the VR task --- and some even reported it to be enjoyable --- others expressed anxiety regarding the use of unfamiliar technology.
Discussion: This qualitative study highlights both the promise and limitations of VR in assessing real-world vision, whilst underscoring the importance of meaningful, patient-centred tests grounded in lived experience, to complement conventional clinical measures of vision.

Poster, Clinical Research

101 Concentric Macular Rings: A Rapid Diagnostic Marker for Paediatric Foveal Hypoplasia

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Introduction: Foveal hypoplasia is observed in conditions like albinism and aniridia. Recent studies reveal a concentric macular ring (CMR) visible on infrared reflectance of OCT and wide field fundus photography. We report a case series of children diagnosed with CMR and analyse its association with OCT-based grading of foveal hypoplasia.
Method: A retrospective analysis of the children presenting at the University Hospital Coventry & Warwickshire and Birmingham Children's Hospital was conducted reviewing their visions, refraction, fundus photos, OCT, Electrodiagnostics, and Genetics.
Results: 29 widefield fundus pictures were found to have CMRs, and 19 of them had OCT images acquired. Clinical and genetic evaluations revealed the 24 albinism cases that had CMR included OCA Types 1,2, X-linked ocular albinism, and syndromic inherited forms. Median age 4 years (4.8 months – 15 years),21 male,8 female. Median vision 0.68 logMar (0.18 – 1.6 logMar).22 eyes were refracted in house - median spherical equivalent +0.88 D (+6.25 D to – 5.88 D).On OCT grading, majority of the patients had a Grade 3 Hypoplasia (n=9) followed by Grade 4 (n=5) with one patient having no hypoplasia.
Discussion: Central Macular Rings are optical artifacts resulting from Newton's rings, which are concentric bright and dark rings formed by constructive and destructive interference. This phenomenon occurs due to the corrugations of Henle's layer in foveal hypoplasia. CMR serves as an alternative indicator for foveal hypoplasia in young children, especially when high-quality OCT images are difficult to obtain. It helps with provisional counselling regarding visual prognosis for suspected foveal hypoplasia in cases of unexplained diminished visual acuity or nystagmus with an unremarkable macula.

Poster, Clinical Research

ABSTRACT MENU

102 OCT To Distinguish Papilloedema From Pseudopapilloedema: A Systematic Review and Meta-Analysis

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Introduction: Because papilledema can be difficult to distinguish from pseudopapilloedema, and because true papilledema may indicate serious intracranial disease, many patients are unnecessarily referred to hospital eye services. This systematic review and meta-analysis assessed the diagnostic accuracy of optical coherence tomography (OCT) in differentiating papilledema from pseudopapilloedema.
Methods: Medline, Embase, and CENTRAL were searched for OCT studies evaluating papilledema, pseudopapilloedema, or adult controls. Primary outcomes were sensitivity, specificity, and area under the receiver operating characteristic curve (AUC). Secondary outcomes included between-group differences in imaging parameters. Meta-analysis was performed where appropriate.
Results: Twenty-five studies met the inclusion criteria, with considerable heterogeneity in design and measurement. Nineteen patients compared papilledema with controls, four with pseudopapilloedema, and two included both. Peripapillary retinal nerve fibre layer (pRNFL) thickness was most frequently reported. Mean pRNFL AUC ranged from 0.78 - 0.90 for disc swelling versus pseudopapilloedema and 0.90 - 1.00 for papilledema versus controls. Anterior retinal pigment epithelium (RPE) deflection and optic disc and peripapillary retinal volumes also showed good diagnostic performance. Meta-analysis demonstrated significantly higher mean pRNFL thickness in papilledema than in pseudopapilloedema (+65.8 µm, 95% CI 40.4-91.3 µm) and controls (+51.5 µm, 95% CI 40.3-62.7 µm; both $p<0.01$). Hypo-reflective intrapapillary structures with hyperreflective margins were characteristic of optic disc drusen.
Conclusions: OCT is a useful tool in evaluating suspected papilledema. Increased pRNFL thickness supports diagnosis, though mild cases may require additional parameters such as RPE deflection or disc volume. Study quality was generally limited, highlighting the need for standardised research.

Poster, Clinical Research

103 Extraocular Muscle Plication as an Alternative to Resection in Strabismus Surgery: A Comparative Study

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Introduction: Strabismus is a common ocular motility disorder with a significant negative psychosocial and functional impact. Surgery is the mainstay of management, with resection traditionally used to enhance extraocular muscle action. Plication has evolved as a vessel-sparing and potentially reversible alternative; however comparative outcome data remains limited. The aim of this study was to investigate effectiveness of plication versus resection strabismus surgery, specifically evaluating surgical outcome, dosing and post-plication changes in muscle bulk with anterior segment optical coherence tomography (ASOCT).
Methods: A retrospective review of a single surgeon's logbook from a tertiary strabismus service was conducted. Single-muscle procedures were sub-grouped for direct comparison.
Results: 712 consecutive procedures were reviewed. 225 patients (aged 4 - 82 years) fulfilled inclusion criteria. 33.33% (75/225) underwent plication and 66.66% (150/225) resection. The plication group had a mean pre-operative angle of deviation of 37.38 prism dioptres (PD), which reduced by 77.98% at 2 weeks, and the resection group had a mean pre-operative angle of 37.61 PD which reduced by 94.48%. Mean surgical dose-response for single muscle surgery was 3.24 PD/millimetre for plication, and 2.57 PD/ millimetre for resection. No statistically significant differences were found in consecutive exotropia or binocularity status. ASOCT was available in 5 plications, demonstrating post-operative transient muscle thickening, with a mean change in muscle thickness of -0.0008 mm after 6 months.
Discussion: Plication achieves comparable alignment outcomes to resection. Outcomes were consistent across subgroups, and muscle bulk normalised over time. These findings support plication as an effective alternative to resection in strabismus surgery.

Poster, Clinical Research

ABSTRACT MENU

104 The Retinal Vascular Profile as a Biomarker for Paediatric Intracranial Hypertension: An Optical Coherence Tomography Angiography (OCTA) Study

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Introduction: There are currently no studies which have evaluated the utility of the retinal vascular profile in diagnosing paediatric intracranial hypertension (IH). This study aimed to evaluate (1) the relationship between paediatric ICP and the vascular retina imaged using OCTA, and (2) the diagnostic capability of OCTA imaging for paediatric IH.
Methods: A prospective cohort study was conducted in children undergoing invasive intraparenchymal overnight ICP monitoring. OCTA imaging was done under general anaesthesia at the time of the surgery for ICP monitor insertion. The OCTA vascular signals of the peripapillary superficial vascular complex (SVC), deep vascular complex (DVC), and choroid were quantitatively measured in ImageJ. Pearson correlation tests were used to analyse the association between the vascular signals and the grand mean ICP. Diagnostic accuracy was assessed using ROC analysis, where IH was defined as a grand mean ICP of at least 15 mmHg.
Results: Twenty-six children were recruited (13 craniosynostosis, 6 Chiari malformation, 4 hydrocephalus, 3 other diagnoses). There was a strong positive correlation between the vascular signal of the SVC and ICP: $r=0.71$, $p<0.0001$. There was no significant relationship between the DVC or choroid and the ICP. The vascular signal of the SVC had a high diagnostic accuracy of 85% (AUC=0.82) in predicting paediatric IH, and this was higher than that of normal structural OCT of 73% (AUC=0.72).
Discussion: OCTA imaging demonstrated a high diagnostic accuracy for paediatric IH and may therefore be a useful adjunct in ocular assessment of children at risk of IH.
Poster, Clinical Research

105 Audit of the Care of Patients with Idiopathic Intracranial Hypertension (IIH) During Pregnancy

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Background: Idiopathic Intracranial Hypertension (IIH) primarily occurs in women of childbearing age, and pregnancy is an important consideration and frequent occurrence in IIH patients. Optimal management requires coordinated multidisciplinary care involving, obstetrics and neuro-ophthalmology. This audit aimed to evaluate adherence to national clinical guidelines and identify areas for improvement in the management of pregnant patients with IIH.
Methods: A retrospective audit was conducted within the Ophthalmology department, reviewing medical records of pregnant patients diagnosed with IIH who attended single consultant neuro-ophthalmology clinic between 2017 and 2024. Key audit standards were based on national guidelines (Thaller M, Wakerley BR, Abbott S, et al) and were preconception counselling, neuro-ophthalmologic monitoring, medication management, and delivery planning. Data were analysed to assess compliance and identify variation in clinical practice.
Results: Twenty-eight eligible cases were identified, including five patients diagnosed during pregnancy. Medical treatment was initiated in 24 cases, with three patients requiring surgical intervention prior to pregnancy. Documented preconception counselling, including risk-benefit discussions, was found in 12 cases. Medication was discontinued prior to conception in 21 patients, and at the onset of pregnancy in two cases. One patient continued acetazolamide during pregnancy. Regular visual assessments were recorded in 25 cases; however, there was variability in both the frequency and quality of documentation. Mode of delivery was appropriately individualized in most cases. Optical coherence tomography (OCT) data showed no evidence of worsening of IIH during pregnancy or the postpartum period. No IIH-related maternal or foetal complications were reported, including in the case where acetazolamide was continued.
Conclusion: The audit demonstrates generally good compliance with clinical standards in the care of pregnant patients with IIH. However, variability exists in preconception counselling and ongoing visual monitoring. Key recommendations include enhanced dissemination of guidelines, implementation of standardized documentation tools, and strengthened multidisciplinary coordination to ensure consistent, high-quality care.

Poster, Clinical Research

ABSTRACT MENU

106 Transverse Sinus Stenting for Idiopathic Intracranial Hypertension: A Review of 3 Patients

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Introduction: Transverse venous sinus stenosis is frequently observed in idiopathic intracranial hypertension (IIH), although its contribution to disease pathophysiology remains uncertain. Hemodynamic modelling suggests that stenting a stenotic transverse sinus with a significant pressure gradient may reduce cerebral venous pressure, improve cerebrospinal fluid (CSF) absorption, and subsequently lower intracranial pressure. These mechanisms may lead to rapid clinical improvement, particularly in patients with fulminant or vision-threatening papilloedema. This study evaluated whether transverse venous sinus stenting (TVS) is effective in patients with IIH who are refractory to medical therapy.
Methods: We retrospectively reviewed pre-procedural clinical findings, venography, and intracranial pressure measurements, along with post-stenting outcomes including visual acuity, colour vision, pupillary responses, funduscopic examination, optical coherence tomography (OCT), and visual field testing. All patients had failed maximally tolerated medical therapy. Follow-up ranged from two to nine months.
Results: Pre stenting lumbar CSF opening pressures were 34 cm H□O, 61 cm H□O, and 40 cm H□O, with corresponding transverse sinus pressure gradients of 50 mmHg, 17 mmHg, and 16 mmHg. In all cases, TVS immediately abolished the venous pressure gradient and produced rapid symptomatic improvement with resolution of papilledema. No patient experienced recurrent stenosis or symptom relapse during follow up. All adopted weight management strategies, supporting sustained remission. One patient presented late with established tubular visual field loss, more pronounced in the left eye, which persisted despite successful stenting, reflecting irreversible optic nerve damage.
Significance: TVS produced rapid clinical improvement in medically refractory IIH. Early intervention appears essential to prevent permanent visual loss, and weight management may help maintain long-term remission.

e-Poster only, Clinical Research

107 Improving the Diagnostic Accuracy of Papilloedema Referrals (the DIPP Study): Insights from General Practitioners, Optometrists, and Ophthalmologists

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Introduction: Papilloedema is a red flag sign for patients presenting with headache, indicating raised intracranial pressure from potentially life-threatening pathology. General practitioners (GPs) and optometrists are the first point of contact for people with headache or visual symptoms. Distinguishing benign causes of headache and pseudopapilloedema from papilloedema can be challenging, leading to secondary care referrals when the diagnosis is uncertain.
Methods: In this multi-methods study, questionnaires were disseminated to GPs (June-October 2023), optometrists (November-December 2023), and ophthalmologists (July-December 2023) asking how they would manage two case vignettes: one with papilloedema and one with pseudopapilloedema. Follow-up semi-structured interviews were conducted between October 2023 and April 2024. Quantitative data were summarised using descriptive statistics; qualitative data were thematically analysed.
Results: 45 GPs, 26 optometrists, and 24 ophthalmologists completed the survey; five participants from each group were interviewed. Across professions, common themes included diagnostic uncertainty, systemic constraints, limited interprofessional communication, inconsistent hospital feedback, and referral pathways. Profession-specific themes were also evident: GPs perceived their role was limited in the identification of papilloedema; GPs and optometrists felt unsupported due to the lack of clear referral criteria; ophthalmologists reported overwhelming referral volumes. Ophthalmologists and optometrists felt burdened by medicolegal responsibility and pressure to manage patient expectations.
Significance: Primary and secondary care clinicians recognise the diagnostic and systemic challenges associated with the correct identification and management of people with papilloedema versus pseudopapilloedema. Clear diagnostic and referral criteria and better communication between primary and secondary care could reduce unnecessary referrals, minimise patient anxiety, and ease system pressures.

ABSTRACT MENU

108 Paediatric Frosted Branch Angiitis Following Atypical Bilateral Anterior Uveitis

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Introduction: Frosted branch angiitis (FBA) is a rare, severe form of retinal vasculitis characterised by diffuse perivascular sheathing, producing a frosted branch appearance on fundus examination. FBA may be idiopathic or associated with infectious, inflammatory, or autoimmune conditions. We report an atypical paediatric case presenting initially with bilateral anterior uveitis, later progressed to severe retinal vasculitis with FBA.
Methods: The patient underwent clinical assessment and imaging with systemic investigations for infectious and autoimmune causes. A literature review was performed using key terms: paediatric uveitis, anterior uveitis, floaters, retinal vasculitis, ANCA, PR3, and frosted branch angiitis.
Results: A 15-year-old female presented initially with a floater, followed one week later by bilateral fine keratic precipitates and anterior chamber cells, with white conjunctiva and no ocular pain. Visual acuity was 6/6 OD and 6/4.8 OS. She was treated with topical dexamethasone and cyclopentolate. One week later, she developed sudden painless visual loss in the right eye and optic disc swelling. Fundus photography demonstrated florid retinal vasculitis with a frosted branch angiitis appearance. Investigations were negative for HIV, syphilis, and viral hepatitis. She was found to be P-ANCA (PR3) positive, leading to a diagnosis of ANCA-associated retinal vasculitis. Treatment with intravenous methylprednisolone resulted in visual improvement.
Significance: This case highlights the need for a high index of suspicion in children presenting with atypical bilateral anterior uveitis as delayed progression to posterior segment involvement may occur. Early recognition and prompt corticosteroid treatment are crucial in FBA, particularly in atypical presentations that risk diagnostic delay.

e-Poster only, Clinical Research

ABSTRACT MENU

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111	**RAPID FIRE** Microneedle Delivery of Stem Cell-Derived Retinal Pigment Epithelial Cells	**Jared Ching**: Dept. of Ophthal. and Microtechnology, Yokohama City University Medical Centre, Yokohama, Japan. Dept. of Engineering Science, University of Oxford, Oxford, UK. NHG Eye Institute, Tan Tock Seng Hospital, Singapore.	LR
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121	Management and Outcomes of Post-Operative Cavity Bleed in Diabetic Vitrectomy Treated with Bevacizumab, Surgery and Observation	**Ruofan Han**: Milton Keynes University Hospitals NHS Trust, Milton Keynes, UK.	CR
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124	Vitreoretinal Pathology in Adults with a History of Prematurity; A Case Series	**Youssef Helmy**: Stoke Mandeville Hospital, Aylesbury, UK. The Dept. of Ophthal., Kasr Al-Ainy, Cairo University Faculty of Medicine, Cairo, Egypt.	CR
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ABSTRACT MENU

110 Primary Results of the Phase 3 SatraGO-1 and SatraGO-2 Trials: Efficacy and Safety of Satralizumab in Thyroid Eye Disease

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Introduction: Thyroid eye disease (TED) is a complex orbital inflammatory disease that can lead to significant morbidity, including facial disfigurement, reduced quality of life, and sight-threatening complications. Satralizumab is a monoclonal antibody that targets interleukin-6 (IL-6). Here, we present Week (W) 24 results from the phase 3 SatraGO-1/2 trials.
Methods: SatraGO-1 (NCT05987423) and SatraGO-2 (NCT06106828) are identical, global, phase 3 trials evaluating the efficacy and safety of satralizumab in patients with moderate-to-severe active TED or chronic inactive TED. Participants were randomized 1:1 to receive subcutaneous satralizumab or placebo at W0, W2, and W4 and then Q4W through W20. The primary endpoint was the proportion of participants with active TED who achieved a proptosis response (≥2-mm reduction in proptosis from baseline in the study eye) at W24.
Results: For participants with active TED, the proportion with a proptosis response was higher for satralizumab (SatraGO-1/2; 49/53%) vs placebo (31/23%; p=0.0715/0.0011), diplopia reduction (≥1-grade reduction) was higher for satralizumab (SatraGO-1/2; 44/61%) vs placebo (34/26%; p=0.3371/0.0044), and clinical Activity Score (CAS) reduction (≥2-point reduction) was higher for satralizumab (SatraGO-1/2; 78/90%) vs placebo (55/63%; p=0.0120/0.0009). Clinical benefits were also observed in the overall (active + inactive) TED population. Overall, the incidence of serious adverse events and treatment discontinuations was low and there were no serious infections.
Discussion: Satralizumab showed clinically meaningful improvements across key efficacy endpoints and had a favourable safety profile in patients with TED. Satralizumab is the first IL-6R inhibitor with convenient subcutaneous dosing demonstrating efficacy for both active and inactive TED.

***Rapid-fire**, Clinical Research*

111 Microneedle Delivery of Stem Cell-Derived Retinal Pigment Epithelial Cells

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Introduction: Retinal pigment epithelium (RPE) transplantation is a promising therapy for retinal degenerative diseases. However, current scaffold-free delivery methods using micro-cannulae are limited by cellular reflux and relatively large retinotomies. We investigated whether primary and induced pluripotent stem cell-derived RPE (iPSC-RPE) cells can be delivered using ultra-thin microneedles to enable microinvasive transplantation.
Methods: Primary and iPSC-RPE cells were passed through surgical microneedles with inner diameters as small as 30 µm (49 gauge). Cell viability, morphology, cytoskeletal integrity, tight junction formation, VEGF secretion, and gene expression were assessed in vitro over 14 days. Ex vivo delivery was evaluated in porcine eyes, and in vivo feasibility was assessed in New Zealand White rabbits.
Results: RPE cells were reliably delivered through microneedles without immediate or delayed loss of viability. Cells demonstrated normal attachment within 24 hours, developed characteristic polygonal morphology, and exhibited intact ZO-1 tight junctions and preserved F-actin organization over 14 days. VEGF secretion remained comparable across microneedle sizes when normalized to viable cell number, and no significant changes in senescence or epithelial-mesenchymal transition markers were observed. Ex vivo porcine experiments demonstrated consistent subretinal bleb formation and successful RPE engraftment, with 49G microneedles minimising reflux compared to standard 38G cannulae. In vivo rabbit studies confirmed rapid neurosensory retinal reattachment within 48 hours.
Significance: These findings demonstrate that surgical microneedles enable safe, functional, and minimally invasive RPE cell delivery, supporting their future development for retinal cell therapy and regenerative medicine.

***Rapid-fire**, Laboratory Research*

112 Efficacy of Intra-Retinal Arterial Cannulation for Central Retinal Artery Occlusion with Visible Platelet-Fibrin Emboli

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Purpose: To evaluate the efficacy of intra-retinal arterial cannulation with tissue plasminogen activator (tPA) for central retinal artery occlusion (CRAO).
Methods: This retrospective study included 50 eyes with acute CRAO: 32 treated with intra-retinal arterial cannulation and 18 with standard treatment (ST). In the cannulation group, pars plana vitrectomy was performed and a 49-gauge microneedle was used to deliver tPA directly into the central retinal artery. Best-corrected visual acuity (BCVA) and retinal perfusion, assessed as the difference in mean blur rate between vessel and tissue areas (MV-MT) on laser speckle flowgraphy, were evaluated for up to 6 months. Emboli were classified as platelet-fibrin, cholesterol, or calcific. Longitudinal changes and predictors of final BCVA were analysed.
Results: In the cannulation group, mean BCVA improved from 2.18±0.64 LogMAR at baseline to 1.95±0.67 at 1 week and 1.68±0.85 at 1 month, with sustained improvement through 6 months (all $p<0.01$). The ST group showed no significant improvement, and between-group BCVA differences were not significant. MV-MT increased significantly in the cannulation group (6.51±5.59 to 13.5±9.08 AU at 1 week) and remained elevated, whereas no significant change occurred in the ST group; 1-week improvement was greater in the cannulation group ($p=0.039$). Baseline BCVA and MV-MT, and 1-week MV-MT predicted final BCVA. Higher 1-week MV-MT was associated with greater baseline retinal thickness and visible platelet-fibrin emboli.
Conclusions: Intra-retinal arterial cannulation with tPA achieved earlier retinal reperfusion than standard treatment.

***Rapid-fire**, Clinical Research*

113 Surgical Outcomes in Advanced Coats' Disease with Retinal Detachment: A Systematic Review and Meta-Analysis

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Introduction: Advanced Coats' disease complicated by exudative retinal detachment (stage ≥3B) often requires surgical intervention to achieve anatomical control and prevent enucleation. However, evidence regarding surgical outcomes remains fragmented.
Methods: A systematic review was conducted in accordance with PRISMA 2020 guidelines and prospectively registered on PROSPERO (CRD420251161562). PubMed, Embase, Scopus, and Web of Science were searched from inception to September 2025. Studies reporting surgical management of advanced Coats' disease were included. Outcomes assessed were anatomical reattachment, visual acuity, globe preservation, and postoperative complications. Risk of bias was evaluated using Joanna Briggs Institute tools. Narrative synthesis was performed, with random-effects meta-analysis where appropriate.
Results: Of 388 records identified, 30 studies were included, predominantly retrospective case series and case reports. Pars plana vitrectomy, frequently combined with subretinal fluid drainage, scleral buckle, or lensectomy, was the most commonly employed approach. Primary reattachment rates ranged from 61% to 100%, with final reattachment rates between 66% and 100%. Visual outcomes were generally limited, with most eyes demonstrating stabilisation rather than meaningful improvement. Meta-analysis of seven studies demonstrated a pooled postoperative complication rate of 28% (95% CI 17–38%; $I^2 = 51\%$). Globe preservation exceeded 90%, and enucleation was rare.
Discussion: Surgical management of advanced Coats' disease achieves high rates of anatomical reattachment and globe preservation but rarely results in meaningful visual recovery, particularly in paediatric patients. Interpretation is limited by retrospective study design and heterogeneity, highlighting the need for prospective, standardised multicentre data.

Poster, Clinical Research

114 Cellular and Extracellular Matrix Reorganisation in Proliferative Vitreoretinopathy

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Introduction: The commonest cause of failure in retinal reattachment surgery is the anomalous wound healing process called proliferative vitreoretinopathy (PVR). The development of measures to improve outcomes depends on an understanding of the cellular mechanisms involved.
Methods: We imaged retinectomy tissue from eyes of three patients with recurrent retinal detachment associated with PVR grade C using highly multiplexed immunohistochemistry (IBEX) and 3D flat mounts. Bright field imaging was utilised to visualise pigmented cells. Equivalent tissue from the retina of an eye unaffected by retinal detachment was used as a normal control.
Results: There was significant disorganisation of retinal structure. Within the retina, there was evidence of ganglion cell neurites extending beyond the outer nuclear layer. The reactive Müller cell and astrocyte marker, GFAP was substantially upregulated in the inner retina with extensive horizontal fibres. Migration of microglia with amoeboid features was observed throughout retinal layers. A non-uniform collagen I/III-positive fibrillary membrane lined the surface of the inner retina, co-localising with the collagen IV-positive internal limiting membrane. There was evidence of pigmented cells on the epiretinal membranes visualised on bright field imaging. Epiretinal membranes also comprised vimentin-positive and αSMA-positive cells that were organised in whirls around epicentres.
Discussion (or Significance): Epiretinal PVR membranes were predominantly comprised of reactive glial cells and fibroblasts. Pigment-laden cells were not a major feature but instead were scattered at low density on epiretinal membranes. IBEX offers a potentially powerful new technique to study PVR in retinectomy tissue.

Poster, Laboratory Research

115 Prophylactic Cryotherapy Reduces the risk of Retinal Detachment in Type 2 Stickler Syndrome

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Introduction: Stickler syndrome is the most common cause of inherited retinal detachment. The purpose of this study is to evaluate whether treating patients with type 2 Stickler syndrome with prophylactic cryotherapy is safe and effective in reducing the incidence of retinal detachment in these patients.
Methods: This retrospective case series includes 197 patients with type 2 Stickler syndrome. The time to retinal detachment was compared in patients receiving bilateral prophylactic cryotherapy versus controls who had not received prophylaxis. Hazard ratios were calculated with and without patient matching. The same analysis was performed comparing patients who received unilateral prophylactic cryotherapy (following retinal detachment in their other eye) to a control group.
Results: The risk of retinal detachment in the bilateral control group (n=100) was increased 5.7-fold compared to the bilateral prophylaxis group (n=85) (HR [hazard ratio] =5.7, 95% CI [confidence interval], 2.0-16.2; p<0.01). In the matched bilateral control group (n=79), the risk of retinal detachment was increased 3.3-fold compared to the matched bilateral prophylaxis group (n=79) (HR=3.3, 95% CI, 1.0-10.7; p=0.04). The risk of a second eye retinal detachment in the unilateral control group (n=34) was increased 10.1-fold compared to the unilateral prophylaxis group (n=12) (HR=10.1, 95% CI, 1.3-78.1; p=0.03). No significant long-term side effects occurred as a result of prophylactic cryotherapy.
Discussion: The results of this large retrospective study demonstrate that prophylactic cryotherapy is both safe and effective in reducing the risk of retinal detachment in patients with type 2 Stickler syndrome.

Poster, Clinical Research

116 Introducing the Eye Posturo-Meter (EPM): A Novel Wearable Device to Measure Posturing Compliance After Vitreoretinal Surgery and to Guide Further Objective Studies

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Background: Posturing is routinely advised after vitrectomy for macular holes and retinal detachments, yet there is no consensus regarding the optimal regimen or duration. Existing evidence is limited by reliance on subjective patient reporting of compliance. Objective, real-world monitoring is needed to determine whether, and how, posturing influences anatomical and functional outcomes following pars plana vitrectomy with gas tamponade.
Aims: To develop a novel wearable device, the Eye Posturo-Meter (EPM), capable of objectively tracking posturing compliance in post-vitrectomy patients. The project also aims to use accurate positional data to evaluate which posturing regimens are most effective in macular holes and retinal detachments, where current recommendations remain inconsistent and insufficiently validated.
Methods: The EPM is an innovative wearable system incorporating orientation sensors within an integrated printed circuit board and SD card, logging head position continuously. Phase I involves prototype development and validation. Phase II will prospectively analyse compliance patterns in surgical patients. Phase III will involve designing a randomised trial comparing posturing strategies using objective adherence and anatomical outcomes.
Results: A functional EPM prototype has been developed and demonstrated reliable positional tracking in preliminary testing. Ongoing work focuses on design refinement, usability optimisation, and regulatory preparation to support progression into clinical deployment, where the device will enable real-world compliance measurement and comparison of posturing approaches.
Conclusion: The EPM enables precise, objective monitoring of posturing after vitrectomy. This project has the potential to define optimal posturing strategies, reduce unnecessary patient burden, and support development of evidence-based guidance to improve outcomes and quality of care.

Poster, Clinical Research

117 Five-Year Efficacy and Safety Outcomes in Patients with Neovascular Age-Related Macular Degeneration Enrolled in the Archway Study and Treated with the Port Delivery Platform with Ranibizumab

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Introduction: Here we present the 5-year safety and efficacy for the Port Delivery Platform with ranibizumab (PDS) refilled every 24 weeks (PDS Q24W) in the Archway-Portal extension trial, in which patients with nAMD were followed prospectively for 240 weeks (5 years).
Methods: Archway (NCT03677934) was a phase 3, randomised, active treatment-controlled trial comparing PDS Q24W with intravitreal (IVT) ranibizumab 0.5 mg injections Q4W in patients with nAMD. On study completion, patients were eligible to enter the ongoing Portal open-label extension study (NCT03683251) where patients either continued to receive PDS Q24W or were swapped from IVT to PDS (IVT-PDS cohort).
Results: The Archway-to-Portal cohort (PDS, n=220; IVT-PDS, n=132) included patients with 240 weeks of follow-up since Archway enrolment. In the PDS cohort, mean (95% confidence interval [CI]) best-corrected visual acuity (BCVA) at baseline and W240 was 74.4 (73.0, 75.8) and 67.6 (65.2, 70.0) letters. In the IVT-PDS cohort, mean (95% CI) BCVA at baseline and W240 was 76.3 (74.7, 78.0) and 68.6 (65.3, 71.9) letters. Mean (95% CI) central subfield thickness (CST) change from baseline at W240 was ≥1.0 (13.1, 11.1) and ≥10.3 (25.7, 5.0) µm in the PDS and IVT-PDS cohorts. PDS treatment was generally well tolerated. Incidence of endophthalmitis was 2.6% in all study eyes implanted with the PDS.
Discussion: Archway-Portal is the largest dataset of anti-VEGF treated patients with nAMD to be followed prospectively and continuously for 5 years in a clinical trial setting, establishing the long-term efficacy and safety of the PDS.

Poster, Clinical Research

118 Enhancing the Risk / Benefit Ratio for Permanent Silicone oil Tamponade

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Background: Silicone oil tamponade to treat retinal detachment (RD) is conventionally removed within months to reduce long-term complications. However, in a small subset of eyes with complex or recurrent retinal detachment, oil removal may precipitate vision loss. This study aims to evaluate the long-term outcomes of permanent silicone oil tamponade in a case series from one centre.
Methods: A retrospective case series was conducted of patients at a single tertiary centre with intraocular high viscosity silicone oil tamponade retained for ≥15 years. Demographic data, surgical indications, duration of oil retention, visual acuity outcomes, complications and evidence of emulsification were analysed.
Results: Eighteen eyes were included, with a mean duration of silicone oil tamponade of 22 years (SD 6.8; range 15–35 years). Indications included recurrent retinal detachment with proliferative vitreoretinopathy, coloboma-related detachments, and severe posterior segment inflammation. Visual acuity improved or was maintained in 94% (17/18) of eyes at final follow-up, with improvement observed in 67% (12/18). Ocular hypertension occurred in 33% (6/18) and was managed with topical therapy. Visible emulsification was present in 39% (7/18), while 39% showed no evidence of emulsification at review. No cases required silicone oil removal due to sight-threatening complications. Two patients retained functional vision in their only seeing eye.
Significance: In carefully selected patients, permanent high-viscosity silicone oil tamponade can provide durable retinal stability and meaningful long-term visual function with manageable complications. As our understanding of the process of emulsification improves, approaches to reduce sheer movement at the silicone-retinal surface can also be utilised.

Poster, Clinical Research

119 Evaluation of Morphological Characteristics of Retinal Reattachment Following Scleral Buckling in Fovea-Involving Rhegmatogenous Retinal Detachment

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Introduction: To characterise in-vivo morphological features of retinal reattachment following scleral buckling (SB) in fovea -involving rhegmatogenous retinal detachment (RRD) on optical coherence tomography (OCT), as compared to stages of retinal recovery that have been observed following pneumatic retinopexy (PnR).
Method: Multicentre, retrospective analysis of consecutive macular OCT scans taken at baseline and at the following time points post-operatively: 2-8 hours, 1-3 days, 1, 4, and 12 weeks, final follow-up if beyond 12 weeks. Morphological features were graded according to the following stages: 1:reduction in subretinal fluid (SRF); 2:resolution of cystoid macular oedema (CMO) and outer retinal corrugations (ORC); 3:contact between retina and retinal pigment epithelium (RPE); 4:resolution of retinal thickening; 5:restoration of outer retinal layer (ORL).

Results: 28 eyes of 28 patients: mean age 34.8 years; mean duration of vision loss 51 days. At each time point, the following stages were achieved:

- 2-8 hours:1: 62.5%; 2: 33%; 3: 12.5%
- 1-3 days: 1: 62.5%; 2: 55.5%; 3: 12.5%
- 1 week: 1: 86.7%; 2: 81.8%; 3: 17.6%
- 4 weeks: 1: 86.7%; 2: 81.8%; 3: 11.7%
- 12 weeks : 1: 94.7%; 2: 100%; 3: 44.4%; 4: 70%; 5: 52.%.
- Final follow-up: 1: 100%; 2: 100%; 3: 73.3%; 4: 50%; 5: 93.3%

Discussion: Retinal recovery after SB follows the sequential stages observed after PnR, likely because the techniques share similar RPE regulated mechanisms of reattachment. Objective signs of retinal recovery start within hours of surgery. Persistent SRF is common, but outer retinal recovery ultimately occurs in the majority of eyes.

Poster, Clinical Research

120 Assessing a 36-Week Refill-Exchange Regimen for the Port Delivery Platform with Ranibizumab in Patients with up to 2 Years Diagnosis of Neovascular Age-Related Macular Degeneration: Phase 3b Sightspire Trial

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Introduction: The current standard of care for neovascular age-related macular degeneration (nAMD) is anti-vascular endothelial growth factor (VEGF) intravitreal (IVT) injections, but frequent injections are burdensome. The Port Delivery Platform with ranibizumab 100 mg/mL (PDS) is currently only approved in the US for nAMD treatment with refill-exchanges every 24 weeks (Q24W). Here, we report the study design of Sightspire.
Methods: Sightspire (NCT06847542) is an ongoing, global, phase 3b trial of the PDS Q36W in patients with nAMD (target enrolment is 250) across 15 countries. Sightspire is a single-arm study with 2 treatment cohorts: Q24W and Q36W based on disease activity criteria. Key eligibility criteria include initial diagnosis of nAMD within 24 months, demonstrated response to anti-VEGF IVT treatment, and best-corrected visual acuity (BCVA) of at least 34 letters (20/200 Snellen equivalent). The Sightspire design enables a personalised treatment approach based on individual disease activity and response, with visit intervals flexible up to Q12W, at the investigator's discretion.
Results: The primary endpoint for this study is the change from baseline in BCVA, averaged over weeks 68 and 72, for the Q36W cohort. The study places emphasis on patient-reported outcomes and the perspectives of caregivers supporting patients with nAMD. The safety endpoint is the incidence and severity of ocular and systemic adverse events.
Discussion: The ongoing, global, phase 3b Sightspire program will evaluate PDS Q36W in nAMD patients with up to 24 months nAMD diagnosis, and its potential to address the unmet need for less burdensome effective treatments for nAMD.

Poster, Clinical Research

121 Management and Outcomes of Post-Operative Cavity Bleed in Diabetic Vitrectomy Treated with Bevacizumab, Surgery and Observation

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Introduction: Management of post-op cavity bleed in diabetic vitrectomy can be challenging. This audit examined rates and outcomes of conservative, anti-VEGF and surgical management in post-operative cavity bleeds in a single centre.
Methods: Retrospective audit of all diabetic vitrectomies between 2022-2024 at Milton Keynes University Hospital.
Results: 76 eyes (of 60 patients) had at least 3 months of follow-up data. 34/76 (44.7%) eyes had post-operative cavity bleed. Mean age was 52. Age (p=0.66) and sex (p=0.7) had no effect on bleeding risk. All patients received IVT bevacizumab (Avastin) 1 week prior to primary surgery. The presence of pre-op vitreous haemorrhage was associated with double the likelihood of post-operative bleed (OR 2.04, chi squared p=0.02), and oil tamponade with half (OR 0.45, chi squared p=0.02). The vast majority (31/34) of post-op bleeds occurred before 6 weeks. 14/43 (41%) resolved on conservative treatment, while 15/34 (44%) required anti-VEGF: of these, 3 (20%) required repeat vitrectomy. Of the 19 eyes not receiving anti-VEGF, 4 (21%) also required repeat vitrectomy. Mean pre-op vision was 1.68 and improved to 1.12 (mean follow-up: 68.2 weeks). The occurrence of post-op cavity bleed did not affect best final BCVA (p=0.9). However, persistent haemorrhage (affecting 7/34 eyes despite anti-VEGF +/- repeat vitrectomy) led to significantly worse post-op BCVA at 1.75 vs 0.94 (p=0.03).
Discussion: Early post-op haemorrhage was common, but final best BCVA was unaffected overall. Most were managed conservatively or with anti-VEGF, with 9% needing repeat vitrectomy. However, 1/5 of patients suffered persistent haemorrhage and poor final BCVA.

Poster, Clinical Research

123 A Vitreous State of Affairs: A Decade of Paediatric Vitreoretinal Surgery at a Tertiary Children's Hospital in the UK

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Introduction: Paediatric vitreoretinal (VR) surgery is rare (incidence of rhegmatogenous retinal detachment (RD) 0.38/100,000 children and young people (CYP) compared with 12.4/100,000 adults) and technically challenging. Paediatric VR surgical workload is weighted towards trauma and congenital anomalies, whereas adult-VR is dominated by myopia, age-related changes, iatrogenic and diabetic retinal disease. This study reviews paediatric VR surgical activity and outcomes at a tertiary VR care centre over a 10-year period.
Methods: A retrospective review was conducted on consecutive vitreoretinal surgical procedures performed in patients aged <16 years at Sheffield Children's Hospital between 2015-2025. Theatre procedure codes were screened and data extracted from the Electronic-Document-Management-System.
Results: 244 coded procedures were reviewed. 24 CYP met inclusion criteria, underwent 49 VR procedures, performed by a team of 6 out of 7 adult VR-surgeons. CYP undergoing VR surgery resided in areas more deprived than 66.9% of neighbourhoods in England. Mean age at referral was 10.1 years, 66.7% were male. 45.8% had congenital anomalies. The most common indications were rhegmatogenous RD (54.2%) and ectopia lentis (16.7%). 37.5% of CYP had trauma associated pathology, of which 77.8% were male. 45.8% required multiple VR interventions. 69.2% of patients with rhegmatogenous RD had anatomical success with one operation. Post-operatively, vision improved in 54.2%, remained unchanged in 25.0%, and worsened in 20.8%.
Discussion: Paediatric VR surgery at a tertiary centre involves a socially deprived population and significant re-intervention. Despite this, VR surgery can deliver meaningful visual improvement. These findings provide useful benchmark to support service planning and future outcome optimisation.

Poster, Clinical Research

124 Vitreoretinal Pathology in Adults with a History of Prematurity; A Case Series

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Introduction: Retinopathy of prematurity (ROP) is a disease that presents in infancy; however, late-onset vitreoretinal complications may present in adulthood and contribute to vision loss. We aim to describe the clinical features, management, and outcomes of adults with vitreoretinal pathology and a history of prematurity or ROP.
Methods: This was a retrospective observational case series of adult patients presenting with vitreoretinal pathology who were opportunistically identified as having a history of prematurity due to their clinical characteristics. The study was conducted at Buckinghamshire Healthcare NHS Trust between November 2023 and October 2025. The primary outcome was to describe the spectrum of vitreoretinal findings and management.
Results: Six adult patients with a history of prematurity were identified. One patient had a history of cryotherapy for ROP. Reported gestational age ranged from approximately 25 - 29 weeks. Median age at presentation was 27.5 years (range 22 - 50). Three patients presented with asymptomatic atrophic retinal holes, symptomatic posterior vitreous detachment with horseshoe tears, or peripheral avascular retina. The remaining three patients had complex bilateral retinoschisis-associated disease, including retinoschisis, retinoschisis retinal detachment and vitreous haemorrhage, requiring scleral buckle surgery and/or pars plana vitrectomy.
Discussion: These findings support the concept that ROP is a lifelong condition associated with sustained risk. Parent and later patient education, and a high index of suspicion for prior prematurity or ROP are essential when assessing adults with atypical retinal pathology.

Poster, Clinical Research

125 Bilateral Rhegmatogenous Retinal Detachment Following Sequential Phacoemulsification in a High Myope

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Introduction: Rhegmatogenous retinal detachment (RRD) is a recognised complication of cataract surgery, with pseudophakic eyes carrying a two- to four-fold increased risk compared with phakic eyes. Bilateral RRD following uncomplicated sequential phacoemulsification is rare. We report a case demonstrating striking temporal symmetry of bilateral RRD following routine cataract surgery.
Methods: A 72-year-old highly myopic male (axial lengths 26.94 mm and 27.39 mm) underwent uncomplicated sequential phacoemulsification with a three-week interval between procedures. Pre-operative dilated fundus examination revealed no retinal breaks or posterior vitreous detachment (PVD). Post-operative examinations included peripheral retinal assessment with scleral indentation.
Results: Acute PVD developed in the right eye two weeks post-operatively without detectable retinal breaks. At 100 days following right eye surgery, an inferior macula-on RRD was diagnosed and treated with pars plana vitrectomy, cryoretinopexy and SF6 gas tamponade. Fifteen days later (94 days after left eye surgery), the patient developed a bullous macula-off RRD in the left eye, also managed surgically. Final corrected distance visual acuity was logMAR 0.06 (right) and 0.82 (left). Notably, the inter-eye interval between detachments (15 days) closely mirrored the surgical interval (21 days).
Discussion: This case highlights potential surgery-triggered vitreoretinal changes occurring in parallel in both eyes. The temporal symmetry observed suggests a consistent lag between phacoemulsification and RRD in high-risk individuals, underscoring the importance of vigilant fellow-eye surveillance following unilateral pseudophakic RRD.

e-Poster only, Clinical Research

Maintaining the tradition

The ethos since 1909, that the congress is "*for the cultivation of the spirit of good fellowship and of unconventionality, the right of our youngest member to rank with his oldest colleague, and last, but assuredly not least, the frank, free and tolerant discussion of scientific matters brought before its gathering.*"

The Oxford Ophthalmological Congress is the most long standing meeting and the 2nd largest ophthalmological meeting held in the United Kingdom, attracting approximately 350 delegates each year. Historically the Annual Meeting takes place from the first Monday in July through to the following Wednesday.

A short history of the Oxford Ophthalmological Congress 1909 to present day

The origins of descriptive ophthalmology are in antiquity. Therapeutics - at least in the form of cataract couching - is also ancient. But modern scientific ophthalmic theory and practice evolved in the mid-19th century driven by the inventions of the ophthalmoscope and the biomicroscope (forerunner of the slit lamp) and by that century's enthusiasm for the ordering and classification of the natural world.

The great early German ophthalmologists - Helmholtz, von Graefe and Leber particularly - combined accurate personal history taking with detailed descriptions of diseases of the eye. They were internationalists and receptive to advances and discoveries (e.g. the control of infection) in other disciplines.

Robert Doyne died in 1916; the annual Doyne Memorial Lecture was inaugurated in 1917, making it the oldest invited named ophthalmic lecture in the UK.

Robert Doyne (1857-1916), the founder of the Oxford Ophthalmological Congress, shared these characteristics. A meticulous observer - see e.g. his 1899 description of "honeycomb retinal dystrophy" or the Coppock cataract - he was also known as an excellent surgeon and teacher, was hardworking and had formidable organising ability. He had a wide range of social, sporting and domestic commitments and was, for example, a founder member of the Oxford Fencing Club, a tennis player, sailor, cellist, playwright and breeder of pug dogs. He had founded the Oxford Eye Hospital in 1886. He was appointed Reader in Ophthalmology to the University of Oxford (the Margaret Ogilvie readership, the oldest senior academic ophthalmic appointment in the UK) in 1902. In 1904, Doyne was elected President of the Section Ophthalmology of the British Medical Association.

The 1904 annual meeting of the BMA was held in Oxford on July 26th to the 29th. Doyne and the Section honorary secretary, Sydney Stephenson, organised the programme, which in concept is recognisably that adopted by the Oxford Ophthalmological Congress in 1909 and still the structure on which the annual Congress meeting is based. Delegates to the BMA ophthalmic section meeting in 1904 were resident at Keble College and the lectures were given in the School of Anatomy. Doyne himself opened the meeting welcoming an international audience in English, French and German. The opening symposium was on retrobulbar neuritis with Robert Marcus Gunn (1850-1909) and Wilhelm Uhtoff (1853-1927) the principal invited speakers. There was a further symposium on cataract surgery (featuring then, as now, a lengthy dogmatic contribution on surgical technique), one on intraocular haemorrhage and systemic disease and one on accommodation and astigmatism. There was a charming contribution by a zoologist on "The Vision of Birds". Operations for cataract and glaucoma were demonstrated by international surgeons at the Oxford Eye Hospital.

Robert Doyne would recognise that the scientific programme for the present OOC Meetings are based on the blueprint of the 1909 meeting.

The meeting was the first in the UK (probably in the world) to combine these scientific and practical elements with a social programme featuring tours of colleges and evening dinners. It was a great success and Doyne was asked to organise similar events in Oxford in the following years (these meetings were not part of the BMA annual meeting). The Oxford Summer Ophthalmological Meetings held between 1905 and 1908 were of the same academic standard as the original BMA meeting and organised principally by Doyne and Stephenson. They were presided over by Robert Doyne. By the time of the fifth such annual meeting in 1909 Sydney Stephenson, in particular, recognised the undue burden that was being placed on even as energetic and enthusiastic an individual as Robert Doyne. After discussion with other parties, Stephenson proposed to Doyne that the meeting continue on an annual basis, but that the task of organisation be taken over by a Congress Council. Stephenson and Doyne drew up the constitution of the Oxford Ophthalmological Congress, which formally replaced Doyne's annual Oxford meetings after 1909.

The founding governing council of the OOC had 23 members, including 5 from Europe and the USA. Executive powers were vested in The Master, the Treasurer and the Honorary Secretary. Doyne was elected Master, a post in which he continued until 1914 to be succeeded by Sydney Stephenson, the original Honorary Secretary. Keble College continued as the Congress base until 1947. After brief associations with Hertford and Brasenose colleges, the Congress moved to Balliol in 1952, remaining there until 1996 when it transferred to St Annes. Sir William Osler, Regius Professor of Medicine at Oxford University, presided at the opening ceremony of the OOC in the Lecture Theatre of the Department of Physiology on Thursday, 21st July 1910. The programme consisted of descriptions of operations, "addresses" - (e.g. on glaucoma by Mr Priestley-Smith) - and demonstrations of instruments and clinical methods. There were also operations and demonstrations of clinical cases at the Oxford Eye Hospital. The inaugural Congress dinner took place as well as other social events such as a Smoking Concert and expedition by river to Reading.

Although the Ophthalmological Society of the United Kingdom (OSUK) - forerunner of the Royal College of Ophthalmologists - had been founded by Sir William Bowman in 1880 and met annually, the OOC quickly became established as a major UK national ophthalmic meeting. Until the expansion of the College Congress recently it was also the largest meeting. From its inception there was an international flavour with members and invited lecturers from Europe, the USA and the old Colonies.

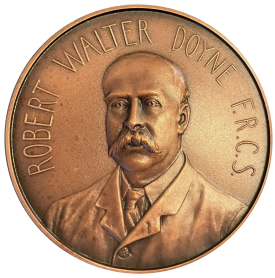
Robert Doyne died in 1916; the annual Doyne Memorial Lecture was inaugurated in 1917, making it the oldest invited named ophthalmic lecture in the UK. From the early years, Doyne lecturers have been invited from overseas as well as UK ophthalmologists, and since the mid-1970s this has been formalised on alternate years. The list of Doyne lecturers is representative of the best minds in the past century of the UK and international ophthalmology, and includes Sir Stuart Duke Elder, Professor Sir Norman Ashton and Professor Barry Jones. Non ophthalmologists, especially neurologists, have given Doyne Lectures, notably Swithin Meadows in 1969 and Professor Iain McDonald in 1983. Other important non-ophthalmic lecturers have included (from Oxford) the Chair of Anatomy, Professor W E Le Gros Clark (1942) and of Physiology, Professor Colin Blakemore (1989). The Doyne Memorial Lecture to mark the centenary, was given by Professor Sir John Bell who is, (as Sir William Osler was), a distinguished Canadian Regius Professor of Medicine at Oxford University. Sydney Stephenson had been elected Master in 1916 and remained in post until 1922, following which the tenure of the Master was reduced to 3 years and subsequently in 1959 to 2 years.

Amongst Robert Doyne's successors as Master was his son, P. G. (Geoffrey Doyne - also a notable fencer - (1942-1944). The Congress organisers have maintained the policy, established in the early years, of inviting distinguished overseas speakers to contribute to symposia. These have included Dr William Wilmer, founder of the Wilmer Institute, Baltimore (1927), Dr Harvey Cushing who spoke on the early diagnosis of intracranial tumours in 1932 and Sir Harold Gillies (1935) on plastic surgery of the eyelids.

The 1909 constitution of the OOC, notable for its brevity, has remained unchanged. The minutes of Council meetings reveal that this body and its executive have, however, always been innovative and forward thinking. The first lady member (Miss Lilias Blackett) was elected in 1917 to be followed by (among others) Ida Mann (elected 1926, Doyne lecturer 1929). The importance of the Council as distinguished ophthalmologists was recognised by the adoption of four Council members and The Master as ex officio members of the Council of British Ophthalmologists, forerunner of the Faculty of Ophthalmology of the Royal College of Surgeons (established in 1946 by Sir Stuart Duke Elder).

In 1998, space constraints at the Department of Physiology in South Parks Road led to a move to the much larger and more comfortable accommodation of the Oxford Playhouse. Optic UK who has supported the Congress for many years with a Trade Exhibition moved to the nearby Randolph Hotel and the Congress Poster exhibition to the Ashmolean Museum and, subsequently, the Taylor Institute.

Robert Doyne would recognise that the scientific programme for the present OOC Meetings are based on the blueprint of the 1909 meeting.



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