Abstract Booklet

Wed 1 – Fri 3
October 2025

West Road Concert Hall
Cambridge, UK

Rapid fire presentations

Wed 1 – Fri 3
October 2025

West Road Concert Hall
Cambridge, UK

Wednesday 01st October 2025
09.30 am – 10.00 am Practice changing free papers session

ID-130336
Why cant we have nice things?: The creation of a national strabismus audit tool
Saurabh Jain, Siegfried Wagner, Ken Kawamoto
Royal Free Hospital, London, UK

Strabismus surgery is a highly quantitative and evidence-driven field. However, the UK currently lacks a national system to systematically collect and analyse surgical outcomes, leading to significant variations in practice and an absence of benchmarking data.
This project aims to establish a national strabismus surgery database, creating a centralised platform to collect and analyse data from multiple surgical units across the country. Designed in line with existing national ophthalmology registries, the database will enable continuous monitoring of surgical outcomes. Standardising data collection will facilitate research, drive quality improvement, and ultimately enhance patient care.
The research team has secured local ethical approval and is currently gathering data from multiple units across the UK for a study on surgical outcomes in Scott's procedure for incomitant strabismus. This study serves as a feasibility assessment for the proposed national database, offering insights into data collection logistics, potential challenges, and the overall impact of a centralised registry.
Data will be collected securely via the browser-based software 'Research Electronic Data Capture' (REDCap), ensuring anonymised submissions from multiple sites. The dataset will be standardised to include patient demographics, preoperative measurements, prior surgical history, surgical techniques, postoperative alignment, and complications.
By establishing the UK's first national strabismus surgery database, this project will provide critical benchmarking data, improve clinical practice, and support high-quality research. The database will also inform guideline development and help identify key factors influencing surgical success, ultimately advancing the field and improving patient outcomes.

ID-130249
At what age does strabismus impact quality of life in children?
Aimee Cecil[1], Lauren Hepworth[2]
[1]University College London, UK, [2]University of Liverpool, UK

Strabismus can have profound psychosocial impacts in addition to functional impacts. Psychosocial impacts typically stem from negative attitudes and can manifest as low self-esteem, employment discrimination, and problems forming interpersonal relationships. Evidence suggests that negative attitudes towards strabismus emerge in early childhood. The aim of this review was to investigate the age at which strabismus impacts quality of life in children.
A systematic search was conducted using online databases (MEDLINE, Embase, Emcare, and PsycINFO) from their inception until July 2024. The search strategy was derived from three topic areas: strabismus; quality of life; and children. A two-stage screening process involved screening titles and abstracts before full-texts were retrieved and screened. Inclusion criteria required studies to have participants aged <18-years-old

with strabismus completing a measure of quality of life. Quality assessment of studies was performed using the Strengthening the Reporting of Observational Studies in Epidemiology checklist.
From 1,014 records, a total of 10 studies were included. Most studies reported children with strabismus had significantly reduced quality of life compared to children without strabismus, across all age groups. Three studies compared scores between different age groups. One indicated a greater reduction in quality of life in older children. Conversely, two found no significant difference between different age groups.
Findings indicated that strabismic children across all age groups experience reduced quality of life, although age-specific analysis was limited.
A future longitudinal study using an appropriate validated outcome measure from diagnosis until adulthood is needed to facilitate an age-specific analysis of quality of life.

ID-130056
Binocular versus standard occlusion or blurring treatment for unilateral amblyopia in children aged three to eight years
Rachael Grierson[1], Siobhán Ludden[2], Desta Bokre[3], Manjula Nugawela[4], Catey Bunce[5], John Greenwood[6], Annegret Dahlmann-Noor[7,8], Vijay Tailor-Hamblin[6,7,8]
[1]Royal Cornwall Hospitals NHS Trust, UK, [2]Children's Health Ireland, Dublin, Ireland, [3]The Joint Library of Ophthalmology, Moorfields Eye Hospital & UCL Institute of Ophthalmology, UK, [4]UCL Institute of Ophthalmology, UK, [5]The Royal Marsden NHS Foundation Trust, UK, [6]University College London, UK, [7]NIHR Biomedical Research Centre, UK, [8]Moorfields Eye Hospital NHS Foundation Trust, UK

Occlusion treatment, via patching or pharmacologically blurring the better-seeing eye, is the mainstay for treating unilateral amblyopia. The development of new binocular treatments for amblyopia utilising specialised lenses or modified computer displays have the potential to improve treatment adherence, as children could find this more tolerable/engaging, as well as improving stereopsis.
A Cochrane systematic review was undertaken, to determine if binocular treatments in children with unilateral amblyopia result in better visual outcomes than conventional occlusion treatment. Inclusion criteria were randomised controlled trials (RCTs) that enrolled children aged between 3-8 years with previously untreated unilateral amblyopia. We included any type of binocular intervention (e.g. computer monitors viewed with liquid-crystal display shutter glasses; hand-held screens or virtual reality displays). Control groups were to receive standard amblyopia treatment.
The primary outcome was the change in amblyopic eye (AE) best corrected distance visual acuity (BCVA) [logMAR] from baseline to 16(± 2) weeks of treatment. Secondary outcomes included change in AE BCVA from baseline to 8(± 2) weeks of treatment and change in stereopsis from baseline to 8(± 2) and 16(± 2) weeks.
Our 2022 review identified one eligible RCT. Both binocular and standard treatment successfully improved acuity after 16 weeks; however, the difference between them was non-significant (improvement of -0.21 logMAR in the binocular group; -0.24 logMAR in the patching group), mean difference (MD) 0.03 logMAR (95% confidence interval (CI) -0.10 to 0.04; 63 children). The 2025 review identified 10 eligible RCTs. The meta-analysis of the most recently included studies will be discussed.

ID-130109

Can we trial interventions for homonymous hemianopia in children and young people? A pilot randomised control trial of peripheral prisms

Sian Handley [1,2], Michael Crossland [3,4,5], Dorothy Thompson [1,2], Jessica Gowing [1], Rosemary Wilson [1], Vasiliki Panteli [1], Mario Cortina-Borja [2], Alki Liasis [2,7], Richard Bowman [1,2], Jugnoo Rahi [1,2,4,5,6]

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Most intervention studies for homonymous hemianopia(HH) have been undertaken in adults with largely later onset field loss. Thus, whilst optical intervention with peripheral prisms has been well investigated in adults, there is little evidence for use in children and young people(CYP). We investigated the possibility of undertaking similarly designed trials of peripheral prisms in CYP with HH.

We undertook a pilot of a double-masked crossover randomised controlled trial(RCT) of peripheral prisms. Participants wore both 40PD peripheral prisms and 4PD 'sham' prisms for approximately 4-weeks each. Minimisation allocated prism order balancing for side of HH. The primary outcome measure was parental and CYP intention(Yes/No) to continue wear.

Twenty-two(47%) of eligible subjects participated: aged 5-17 years(mean 12) 8 female. Ten had right HH. All completed the trial. One was excluded from analysis as new pathology found. All CYP were able to complete the primary outcome. A significantly higher proportion of CYP said "yes" to real(66.7%) compared to sham prisms(14.3%)[McNemar's p=0.016]. A similar proportion was reported by parents. At trial end 15(71.4%) chose to continue peripheral prism. Long-term follow-up responses from 8/15 indicated a minimum of 53.3% long-term use.

Interventional trials for HH are feasible in selected CYP, and families are willing to participate. Adaptions to HH trials designed for adults can be made to translate them to CYP with a range of neurodisability. Both CYP and parents showed a significant preference for peripheral prisms over sham with good long-term adherence. These findings will inform design of future studies including potential full-scale RCT.

ID-130356

Redefining vision tests: Exploring novel child-friendly tests in CRB1-related retinal disease

Ana Rodriguez-Martinez [1,2,4], Vijay Tailor-Hamblin [1,2,3,5], Bethany Higgins [1,2,3,6], Pete Jones [1,2,3,6], Tessa Dekker [2,5], Robert Henderson [1,4], John Greenwood [5], Mariya Moosajee [1,2,3]

[1] Moorfields Eye Hospital, [2] Institute of Ophthalmology, [3] NIHR Biomedical Research Centre, [4] Great Ormond Street Hospital, [5] University College London, [6] City St George's, University of London, UK

Mutations in CRB1 cause a spectrum of inherited retinal dystrophies, including Leber congenital amaurosis/Early-onset severe retinal dystrophy/ (LCA/EOSRD), retinitis pigmentosa (RP), cone-rod dystrophy (CRD), and macular dystrophy (MD). As treatment strategies advance, establishing reliable functional vision metrics is crucial.

This study evaluates two novel child-friendly, computer-based tests—PopCSF for contrast sensitivity function (CSF) and VacMan for visual acuity and visual crowding—against gold-standard clinical measures to better characterise visual deficits in CRB1-retinopathies.
A cross-sectional study was conducted on 20 patients with molecularly confirmed CRB1 disease-causing variants, compared to age-matched controls. Contrast sensitivity was measured using the gold standard Pelli-Robson chart and the novel PopCSF iPad-based test, while visual acuity and crowding were assessed using gold standard ETDRS and novel computerised VacMan test.
Visual acuity measured with ETDRS strongly correlated with the child friendly VacMan test in both uncrowded ($r = 0.868$, $p < 0.001$) and crowded thresholds ($r = 0.748$, $p < 0.001$). Additionally, visual crowding was significantly elevated in CRB1 patients compared to controls, independent of phenotype or age of onset. CRB1 patients exhibited significantly reduced contrast sensitivity compared to controls, with the LCA/EOSRD group showing the greatest impairment. Contrast sensitivity correlated moderately between Pelli-Robson and PopCSF ($r = 0.53$, $p = 0.020$).
Novel child-friendly tests not only match gold-standard measures but also provide additional insights into functional vision in CRB1-retinopathies. This offers promising endpoints for monitoring disease progression and evaluating treatment outcomes in paediatric inherited retinal diseases.

ID-130320
Low vs. high intensity occlusion therapy for mild/moderate amblyopia: Feasibility RCT outcomes
Dipesh Patel, Valerija Tadic, Lucinda Teoh, Rachael Hunter, Mario Cortina-Borja, Jugnoo Rahi
UCL Institute of Ophthalmology/GOS Institute of Child Health and Moorfields Eye Hospital NHS Foundation Trust/NIHR Moorfields Biomedical Research Centre, UK

Recent meta-analyses and PPI activities highlight gaps in understanding around optimal patching dose for children with amblyopia. High-intensity (full-time) patching has never been compared to gold-standard low-intensity patching, and no contemporary data exist to inform trial design.
We conducted a single-centre randomised-controlled feasibility trial of low vs. high-intensity patching in children aged 4-17 years with mild/moderate amblyopia to collect key feasibility data. After consent, children were randomised to receive either treatment-as-usual (2 hours daily patching, increasing to 6 hours if required) or full-time patching, for up to one year. Data were collected on age, sex, diagnosis, VA, treatment duration, self-reported and objectively measured adherence, interview outcomes, and cost factors (ISRCTN44138928).
17 children (29.4% male) aged 4-8 years (mean=6.02 (SD=0.85)) and families consented to participate.
Treatment duration averaged 40.4 weeks (SD=13.4) and 19.8 weeks (SD=10.7) in low and high-intensity groups, respectively, with treatment completed in 16/17 subjects by 1 year (94.1%). Subjectively reported mean adherence to patching over the course of treatment was 87.9% (SD=20.1) and 67.4% (SD=25.4) in low and high-intensity groups, respectively ($p=0.08$, t-test).
Analysis of VA outcome showed that a sample size of 520 is required to detect a difference between groups at 80% power, accounting for 10% attrition in a future trial.

High-intensity treatments are broadly acceptable, though adherence to treatment can be poorer than with treatment-as-usual. Outcomes here will inform the design of a national multi-centre RCT to compare treatment outcome, duration and cost, providing evidence to support shared decision-making around patching doses.

Wednesday 01st October 2025
11:15 am – 11.30 am Oculoplastics free papers session

ID-130227
Why The "Frontalis Muscle Flap" is now the First Choice for Early Paediatric Ptosis Repair - A Case Series
Danny Morrison
Guy's and St. Thomas' NHS Foundation Trust and The London Evelina Children's Hospital NHS Trust, London, UK

Paediatric Ptosis surgery has the near impossible goal of achieving both an excellent functional (visual) and aesthetic result, with failure having significant negative visual and cosmetic consequences.
Currently, levator muscle resection or frontalis suspension with artificial materials (typically silicone), often fall short of achieving consistent and sufficient lid height, and require second surgeries.
The Frontalis Muscle Flap Ptosis Repair preserves vision by adequately raising the eyelid and also achieving an excellent cosmetic outcome that is stable. The Frontalis Muscle Flap (Frontalis Flap, Frontal Flap, Frontalis Advancement Flap), first described 125 years ago has, over the last 10 years, been extensively refined in Europe, North and South America. Recent published modifications have reduced infrequent complications such as "eyelid pop".
Series of 16 ptosis repairs (14 patients, age 9 months to 16 years). March 2023 to March 2025 using the Frontal Flap technique. Description of Why, When and How to perform Frontal Flap surgery, including a video of the critical steps.
(14/16) = 87.5% Excellent (upper lid height within 0.5 mm of fellow eye), (15/16) = 93.75% Good outcome (lid height within 1.0 mm of fellow eye). Re-operation 2 cases (1 lateral droop, 1 skin crease revision). Complications: 1 exposure keratitis.
The Frontalis Muscle Flap operation is an essential tool for early paediatric ptosis surgery. With a single operation, the Frontalis Flap can achieve excellent lid height that is long-lasting, preserve vision, and give a satisfying aesthetic outcome. In older children, the frontalis flap is an option for ptosis repair

ID-130235
Ophthalmic Findings in relation to Fronto-orbital Advancement and Remodelling Surgery: a 6-year retrospective cohort study
Ankur Raj, Anna Davies
Alder Hey Children's Hospital, UK

Fronto-orbital advancement and remodelling (FOAR) surgery is used to correct the anterior cranial vault in children with metopic or coronal craniosynostosis. Post-operative ophthalmic findings reported in the literature include strabismus, astigmatism, amblyopia and orbital asymmetry. Our aim was to compare our findings with published literature.

Retrospective review of electronic records and clinic letters of those children who underwent FOAR at Alder Hey Children's Hospital over a 6-year period (between April 2017 and March 2023). Only children who had pre-operative and post-operative assessments were included. Data collected included: gender, date of birth, underlying diagnosis, suture involvement, date of surgery, date of ophthalmology pre-operative assessment and findings, and date of post-operative ophthalmology assessment and findings.
Of the 177 children who underwent FOAR, only 61 children met inclusion criteria. Average age of FOAR surgery was 23 months old (range 14-52 months). Only 28% had ophthalmic findings pre-operatively; this increased to 66% post-operatively. Main ophthalmic findings post-operatively: strabismus 46%, astigmatism 34%, amblyopia 14% and ptosis 13%. There was a higher rate of ptosis post-operatively.
Counselling for FOAR should include ophthalmic signs; and pre-and post-operative ophthalmic assessment is crucial. Ophthalmologists should work closely with craniofacial surgeons to identify those at risk of developing ophthalmic complications to ensure appropriate management of ophthalmic signs, including ptosis.

ID-130122
Epiblepharon in paediatric glaucoma: a case series
Alicia Canalejo Oliva, Ahmed Magid Wanas, Alan Connor
Royal Victoria Infirmary, Newcastle upon Tyne, UK

We present a case series of three patients who underwent treatment for epiblepharon which developed secondary to paediatric glaucoma.
Case 1 had bilateral congenital glaucoma with left buphthalmos, who required early Baerveldt glaucoma drainage device implantation for intraocular pressure control. Axial length progressed from 22.51 to 24.51 in right eye and from 23.90 to 26.39 in left eye. He subsequently developed left lower eyelid epiblepharon, causing inferior corneal pannus, and was managed surgically with modified Hotz procedure.
Case 2 presented with bilateral congenital cataracts, developing secondary glaucoma after lensectomy in early life. Axial length progressed from 23.24 to 26.1 mm (right eye) and from 23 to 24.67 mm (left eye). Bilateral epiblepharon was later noted and surgery with modified Hotz procedure is planned.
Case 3 had microphthalmia and bilateral congenital cataracts treated in early childhood with lensectomy, resulting in secondary glaucoma. As glaucoma became established, axial length growth to 22.49 mm (right eye) and 21.44 (left eye) was observed. She developed bilateral epiblepharon, managed with a modified Hotz procedure bilaterally.
Progressive axial elongation in paediatric glaucoma may cause tension on the lower eyelid, disrupting the balance between anterior and posterior lamellae, predisposing to epiblepharon. In our series, all patients demonstrated axial length progression. One patient had a glaucoma drainage device, possibly contributing to increased orbital volume and pressure on inferior tarsus.
Children with congenital glaucoma and buphthalmos should be closely monitored for the development of epiblepharon, which can lead to severe keratitis if left untreated.

Wednesday 01st October 2025
15.30 pm – 16.00 pm "Hot Eyes" free papers session

ID-130001
Impact of Slit Lamp Variability on Detection Sensitivity in Anterior Uveitis
Johnny Ma Kwok [1] , Martin Rhodes [2], Joe Baxter [2], Tom Evans [2], Jessy Choi [1,2]
[1] University of Sheffield, UK, [2] Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK
Uveitis is a leading cause of preventable vision loss in children and young people (CYP). Diagnosing anterior uveitis is challenging, as early stages are often asymptomatic, yet delays can cause permanent ocular damage. Current diagnosis relies on slit-lamp detection of inflammatory cells in the anterior chamber, making instrument performance critical for accuracy. This study evaluates slit-lamp variability and diagnostic reliability.
Performance was assessed across 43 slit lamps (21 tungsten, 22 LED) by measuring lux readings under standardised settings and 1x1mm aperture. The brightest and dimmest slit-lamps were selected for simulated anterior chamber testing. Multiple observers independently counted visible cells, grading them from 0-4+ based on Standardisation of Uveitis Nomenclature (SUN) criteria.
LED models outperformed tungsten in brightness and consistency, emitting higher lux ranges (78,000-197,000 lux vs 24,500-116000 lux) with lower variability (CV 24.9% < 43.5%; ANOVA $F[1,39]=4.50$, $p=0.04$). In simulated anterior chamber testing, both types performed similarly at 0 cells and high grades (3+/4+). However, LED lamps detected significantly more cells on average at lower grades: 0.5+ (2.25 vs. 0.75), 1+ (5.25 vs. 3.875), and 2+ (15.25 vs. 13.5).
The results highlight substantial variability between slit lamps, particularly for subtle uveitis. LED technology demonstrated superior sensitivity, highlighting the risk of underdiagnosis with outdated tungsten devices that may miss early subtle inflammation.
For optimal detection of paediatric uveitis, regular calibration and transition to LED technology is recommended to ensure reliable identification of subtle inflammation, potentially improving clinical outcomes through earlier intervention.

ID-130025
Outcomes after pre and peri-operative Ozurdex implantation in paediatric uveitic cataract surgery
Alice Thomas, Shiama Balendra, Parth Shah, Harry Petrushkin, Lucy Barker
Moorfields Eye Hospital, London, UK

Cataract surgery in children with uveitis is associated with an increased risk of postoperative inflammation and complications. Intravitreal dexamethasone (Ozurdex) implants are increasingly used perioperatively to optimiseoutcomes and reduce inflammatory burden. This audit aimed to evaluate the efficacy and safety of pre-operative versus intraoperative Ozurdex administration in paediatricuveitis patients undergoing cataract surgery.
A retrospective analysis was conducted of 23 eyes from 18 children who received Ozurdex within three months before-or at the time of cataract surgery 2012-2024. Outcome measures included best-corrected visual acuity (BCVA), intraocular pressure (IOP), and the presence of cystoid macular oedema (CMO) assessed pre-operatively and

at three months post-operatively.
BCVA improved from a mean of 0.82 logMAR pre-operatively to 0.39 logMAR at three months. Seventeen of 23 eyes (74%) showed improvement in visual acuity, while two eyes worsened due to posterior capsular opacification or recurrent CMO. CMO was present pre-operatively in 14 eyes and resolved in 9 by three months. No new cases of CMO developed. Three eyes had pre-existing ocular hypertension; one developed new IOP elevation post-operatively, managed with topical therapy. Two eyes required repeat Ozurdex injections. No cases of permanent vision loss, lens explantation, or enucleation were recorded.
Ozurdex can be used safely in paediatric patients to facilitate cataract surgery with good outcomes. Intraoperative administration was associated with outcomes comparable to pre-operative administration and offered the additional benefit of avoiding a second general anaesthetic. This approach appears to be a safe and effective adjunct in paediatric uveitis surgery with meaningful clinical applicability.

ID-130123
Escalation to weekly adalimumab injections in management of paediatric uveitis and the role of adalimumab antibodies
Amelia Rees[1], Raheej Khan[2], Clare Nash[3], Jessy Choi[3], Daniel Hawley[3], Sarah Maltby[3], Katherine Sear[3], Gisella Cooper[3], Yaunwei He[1], Sasa Pockar[2], Joanne Wong[2], Vinod Sharma[2], Guilia Varnier[4], Alice Chieng[4], Jane Ashworth[2]
[1] University of Manchester, [2] Manchester Royal Eye Hospital, [3] Sheffield Children's Hospital, [4] Royal Manchester Children's Hospital, UK

Adalimumab is a well-established treatment for refractory paediatric uveitis; however, a small proportion of patients remain inadequately controlled on the standard biweekly dosing. Weekly adalimumab injections are increasingly used in this context, though evidence in paediatric cohorts remains limited. This study evaluates the outcomes of escalation to weekly adalimumab in children with refractory uveitis and explores the relevance of serum drug levels and anti-adalimumab antibodies.
Fifteen children treated at two tertiary centres were retrospectively reviewed following escalation to weekly adalimumab. Data included age at escalation, systemic diagnosis, serum adalimumab levels, anti-drug antibody titres pre- and post-escalation, clinical response and complications. Treatment success was defined as ≤0.5+ anterior chamber cells and <2 drops/day of steroid eye drops at 3 months, or at most recent follow-up where escalation occurred within 3 months of review.
The mean age at escalation was 11 years (range: 3-17). 8/15 patients (53%) had JIA associated uveitis; others had psoriatic arthritis or enthesitis-related arthritis. Average serum adalimumab prior to escalation was 12.15mg/L, and anti-adalimumab antibodies were positive in 7 patients before escalation (47%), and three (20%) post-escalation. Successful control was achieved in 12/15 patients (67%). No serious adverse events were reported.
These findings suggest that weekly adalimumab can be a successful escalation strategy in this context. Drug levels and antibody titres may help identify those most likely to achieve success and help guide clinical decision making.
Weekly adalimumab offers a viable and well-tolerated option in children with refractory uveitis, supporting its role in future treatment pathways

ID-130246
A Natural History Study of Paediatric Myelin Oligodendrocyte Glycoprotein Antibody-Associated Disease Related Optic Neuritis (MOGAD-ON)
Joshua Harvey, Jon Cleary, Ming Lim, Ailsa Ritchie, Tom Rossor
Evelina London Children's Hospital, & Guy's and St Thomas' NHS Foundation Trust, United Kingdom

Myelin oligodendrocyte glycoprotein (MOG) antibody-associated disease related optic neuritis (MOGAD-ON) is a rapid onset, severe neuroinflammatory condition which is typically steroid responsive. This study sought to characterise the natural history of paediatric MOGAD-ON.
This single centre study retrospectively studied all paediatric patients (<18 years old) who presented since 2014 who had a positive MOG-IgG titre on a live cell-based assay. Children were identified as having optic neuritis if they had evidence of disc swelling (on slit-lamp examination or OCT) or MRI features consistent with optic neuritis.
Over the study period 41 patients (mean age 10) were found to have a positive MOG-IgG test with a mean follow-up of 45.2 months (range 1-53 months). 35 patients had sufficient retrospective data for study inclusion. 20 children had optic neuritis at presentation (10/20 bilateral). Mean age at presentation was higher in those children who presented with optic neuritis (8.45yrs vs 5.86 yrs) ($p < 0.05$). 21 children had a monophasic disease course, and 14 children had relapses. In 11/14 children relapse phenotype was the same as the phenotype at presentation. 4/20 of the children presenting with optic neuritis required escalation to plasma exchange or IVIG. 33/35 patients had 6/9 or better vision in both eyes at time of last follow-up.
This study represents the joint-second largest natural history study of paediatric MOGAD-ON. Optic neuritis as a presenting feature of MOGAD is associated with a greater age at presentation. Paediatric patients presenting with MOGAD-ON have excellent visual outcomes, often with steroid treatment alone.

ID-130004
Migratory Dark without Pressure: potential inflammatory marker in Paediatric Uveitis
Laura Ramm, Nisheeta Patnaik, Sam Latham, Sam Gurney, Jerald William
Birmingham Children's Hospital, UK

Dark without pressure (DWP) is an asymptomatic retinal finding commonly seen in darkly pigmented fundi. It is often an incidental finding, but has also been reported in cases of haemoglobinopathies, autoimmune disease, and post infection (Ebola and toxoplasmosis). It is typically benign and stationary, with mid-periphery lesions demonstrating a thinned ellipsoid zone on retinal OCT imaging.
Children seen in the Paediatric Uveitis Service at Birmingham Children's Hospital between 2019–2025 were evaluated for DWP and serial fundus photographs were analysed. We assessed demographics, uveitis type, duration, and correlation with inflammation or treatment. We aim to report our findings of rapidly evolving or migratory DWP lesions and their association with uveitis and inflammatory control.
13 of 234 patients had migratory DWP during their follow-up. Median age was 10 years (Range: 5-15 years). 9 patients were non-Caucasian (5 black/African/Caribbean, 4 Asian), 2 Caucasian, and 2 of mixed ethnicity. 6 had anterior uveitis, 4 panuveitis and 1 posterior scleritis. Median vision at presentation was 0.12 logMAR. Median grade of anterior chamber inflammation was +1 cells. One patient had vitritis of +3 cells at

presentation. 2 had polyarticular juvenile idiopathic arthritis, and one aplastic anemia. Treatments included topical steroids, systemic steroids, other DMARDs and biologics, or a combination. In one case of unilateral uveitis, DWP was only present in the affected eye. In our cohort, the appearance, evolution, and resolution of DWP lesions occurred around episodes of uveitis activity and resolution. We hypothesise that DWP in active uveitis patients may be a marker of underlying disease activity, although the precise pathophysiological mechanism is not yet fully understood. This association could provide a novel clinical sign in the monitoring of uveitis in some children.

ID-130215
Uveitis Screening Is Still Indicated in Children With Juvenile Idiopathic Arthritis On Established Methotrexate Therapy
Nimesha Alex, Brinda Muthusamy, Jayne MacMahon
Addenbrooke's Hospital, Cambridge, UK

Juvenile idiopathic arthritis (JIA) is the most common rheumatological condition of childhood. UK guidelines advise regular uveitis screening due to the prevalence of JIA-associated uveitis (JIA-U) in up to 40% of patients. We hope to establish the risk of developing JIA-U in patients treated with methotrexate for 4 months or more. Retrospective electronic chart review of patients with JIA, aged 2-17 years, receiving methotrexate at a tertiary referral centre between October 2014 and November 2024. Exclusion criteria was treatment with other disease modifying drugs and systemic arthritis. 341 patients met the inclusion criteria. Average age at uveitis diagnosis was 4 years (5 SD). Oligo-articular JIA predominated (65%);66% were ANA positive. Of those treated with methotrexate, 275(80.6%) remained JIA-U free, while 66(19.4%) developed JIA-U. Of these, 40(60%) were diagnosed with JIA-U at time of JIA diagnosis with 18(45%) achieving remission on methotrexate alone; 22(55%) escalated to biologic therapy. 26(39.9%) patients did not have JIA-U when diagnosed, but 22 developed uveitis after 4 months on methotrexate with 18(81%) later escalating to biologic treatment. The average time taken for uveitis to develop in this subgroup of 22 patients is 39 months. Our study shows that of all patients (301) who did not have uveitis when diagnosed with JIA, 7.3% went on to develop JIA-U after methotrexate treatment was established. Although, methotrexate is shown to reduce the incidence of JIA-U, there is still a need to continue screening for evidence of uveitis as escalation of therapy may be required.

Wednesday 01st October 2025
17.00 pm – 17.30 pm "Teamwork" free papers session

ID-130035
Why can we feel stressed and what may help; perspective of staff in paediatric ophthalmology multidisciplinary team
Richa Aspland, Louise Martin, Anja McConnachie
Addenbrookes Hospital, Cambridge, UK

Paediatric ophthalmology multidisciplinary teams (MDT) can work in environments characterised by high workloads, stress and increasing complexity. Royal College of Ophthalmologists (2023) states that capacity pressures and limited resources can

impact on morale and retention, as ophthalmology teams want to deliver high quality patient care. We believe that there is a need for service evaluations to explore the stressors faced by Paediatric Ophthalmology MDT's and to identify their perspective on resources that could support resilience, psychological well-being, and self-care. Feeling heard and understanding team pressures may have a positive impact on staff retention, burn out, and enhance the provision of safe high-quality care for patients.
Clinical psychologists within our team aimed to gather insights into the stressors encountered by the MDT and to understand the multifaceted nature of the challenges staff face. We also examined how staff define their wellbeing, their experiences of work-related stress, and the support systems they find helpful. Our psychosocial reflective practice with the team revealed key themes; increasing complexity of patient needs, decreasing self-care, and limited capacity and resources available for competing workload demands. Staff highlighted that psychologically informed support, clear communications, connections to wellbeing resources, and a stronger emphasis on teamwork and supportive management were essential for enhancing their wellbeing and resilience in the face of stress.
Thematic analysis has helped us to understand staff needs from a psychological and service delivery perspective. Dissemination and further understanding of these aspects of working lives could help teams to continue delivering high-quality care within paediatric services.

ID-130135
Idiopathic Intracranial Hypertension in a paediatric cohort: A retrospective observational study in a single tertiary referral center
Marco Piergentili[1], Chinmay Chaudhari[2], Deepti Gulhane[2], Nivedita Desai[2], Prab Prabhakar[2], Richard Bowman[1], Oliver Marmoy[1], Vasiliki Panteli[1]
[1] Clinical and Academic Department of Ophthalmology, [2] Clinical and Academic Department of Neuroscience, Great Ormond Street Hospital for Children NHS Foundation Trust and UCL Great Ormond Street Institute of Child Health, London, UK

Paediatric Idiopathic Intracranial Hypertension (IIH) is a potentially blinding condition associated with significant morbidity. We aimed to describe demographic, clinical characteristics, imaging, and visual outcomes in a large pediatric cohort with confirmed IIH or secondary IIH from a tertiary neuro-ophthalmology center.
We performed a retrospective review of patients under 18 diagnosed with IIH or secondary IIH between 2017 and 2024. Of 99 patients assessed, 26 were excluded, yielding a final cohort of 73 patients. Data included demographics, pubertal status, presenting symptoms, lumbar puncture (LP) results, neuroimaging, factors causing secondary IIH, visual acuity (VA), papilledema grading, visual fields, OCT, electrophysiology, and B-scan.
Seventy-three patients (51 female, 22 male; mean age 10.7 years, range 2–16) were analyzed. Headache was the most common symptom (86.3%); sixth nerve palsy occurred in 19.2%. Mean LP opening pressure was 36.7 cmH_2O. Secondary IIH was more frequent in pre-pubertal children, while post-pubertal patients more often had primary IIH ($p = 0.002$). Papilledema resolved in a mean of 6.35 months. Among 61 patients with bilateral grading, 73.8% had symmetrical papilledema, while 26.2% showed a one-grade difference. IIH-related MRI features were found in 42.5%. B-scan (available in 46.6%) revealed optic disc drusen in 41.2%. VA at presentation was worse in secondary IIH ($p = 0.010$), but both groups improved significantly at follow-up ($p <$

0.001). Two patients (2.7%) had fulminant IIH.
Paediatric IIH presents with heterogeneous clinical and imaging features. Early diagnosis, comprehensive ophthalmologic and neurologic evaluation, and targeted investigations are essential to guide treatment and preserve vision.

ID-130145
Multidisciplinary Retinoblastoma Management in a Low-to-Middle Income Country: Improved Survival and Eye Preservation Through Team-Based Care
[1]Sidra Masud, [12]Irfan Kabiruddin, Jeeva, [3]Zehra Fadoo, [4]Kiran,Hilal
[1] Mid Yorkshire Teaching NHS Trust, UK, [2] Aga Khan University Hospital, Pakistan

To assess the impact of implementing a multidisciplinary team (MDT) on the management and outcomes of retinoblastoma at a tertiary referral centre, focusing on treatment patterns, ocular preservation, and survival.
A formal MDT, including a paediatric oculoplastics surgeon, paediatric oncologists, orbital radiologists, and interventional radiologists, was introduced in 2015. Retrospective data from three time periods were analysed: pre-MDT (2013–2015), early MDT implementation (2015–2018), and the established MDT period (2019–2021). Treatment modalities, tumour classification, enucleation rates, and mortality outcomes were compared.
Between 2013 and 2015, 17 patients were treated, all of whom (100%) underwent primary enucleation. The mortality rate was 60% (n=10), and long-term follow-up was poor. From 2015 to 2018, 26 patients (35 eyes) were managed with multimodal therapy. Enucleation was required in 6 patients (23%), all of whom presented late. Seven patients (27%) were treated with focal laser and cryotherapy alone, while 19 patients (73%) received systemic chemotherapy combined with laser. Intravitreal chemotherapy was introduced during this phase. Group E tumours accounted for 57% (20 eyes), Group D for 20% (7 eyes), and Group B for 17% (6 eyes). One child (3.8%) died after presenting with metastatic disease. Between 2019 and 2021, 44 patients (61 eyes) were treated. Group E remained most common (34%, 21 eyes), followed by Group B (23%, 14 eyes). Most patients received focal laser and cryotherapy, intravitreal and systemic chemotherapy. Intra-arterial chemotherapy was administered in 2 cases (3%). One patient (2.3%) died after parents declined treatment. Enucleation rates dropped to below 10%, with 98% of patients maintaining regular follow-up.
The introduction of a structured MDT has led to earlier diagnosis, wider access to organ-preserving therapies, and more consistent follow-up. Compared to the pre-MDT era, there has been a significant reduction in enucleation rates (from 100% to <10%) and a substantial improvement in survival (from 40% to over 95%).
A multidisciplinary retinoblastoma service significantly improves survival and reduces enucleation rates. Early collaborative intervention enables safer, more tailored, and vision-preserving treatment strategies in paediatric ocular oncology.

ID-130202
Strabismus in Paediatric Posterior Fossa Tumours: a Retrospective Review
Helena Fawdry [1], Samuel Newlands [1], Rahul Shah [2], Brinda, Muthusamy [1]
[1] Cambridge University Hospitals NHS Foundation Trust, [2] University of Cambridge, UK

Ocular motility disorders are a frequently encountered feature of paediatric posterior fossa tumours (PPFT), either at presentation or as surgical sequalae. There are no UK-

based studies analysing outcomes for such patients. We report the incidence and outcomes of patients presenting to our tertiary referral centre between 1st January 2014-31st December 2022.
This retrospective case-note review included all patients (age 0-18 years) diagnosed with PPFTs in the Paediatric Oncology Database (n=156). Exclusion criteria was demise within 2 years (n=37) or incomplete data (n=43); 76 patients were included. Strabismus was recorded in 20 (26.3%) patients at presentation; 70% had neurological patterns (CNVI n=10, CNIV n=3, internuclear ophthalmoplegia n=1, Duane's n=1), the remainder had concomitant patterns (n=3) or non-specific findings (n=2). Ophthalmology review postdated neurosurgery due to hyperacute presentation (n=12); papilloedema was noted in 45% of patients, although seven patients seen after neurosurgery had no papilloedema. At 2-year follow-up, 20% of ocular motility disorders had resolved spontaneously; 75% had same persistent deficit (n=12); one had disease recurrence resulting in exotropia, one developed Parinaud's syndrome, one developed muscle sequalae. Mean visual acuity in patients with persistent strabismus was logMAR 0.16, compared with logMAR 0.04 in resolved group. Eight patients underwent strabismus surgery (40%), commonly horizontal muscle surgery (n=5), Harada-Ito (n=2). Fifteen patients developed new strabismus at 2-year follow up. Children with PPFTs experience many threats to good long term visual recovery, including strabismic amblyopia. Despite a frequent need for strabismic surgery, we report good visual outcome amongst this patient cohort.

ID-130221
When Uveitis Isn't: CRB1-Associated Maculopathy Masquerading as Inflammation in a paediatric patient
Mustafa Al-Ghazi, Maha Al-Sarraji
University Hospital of Wales, UK

A paediatric patient presented with progressive bilateral visual loss. Best-corrected visual acuity was 6/36 in the right eye and 6/18 in the left. Intraocular pressures were normal, and anterior segments and confrontational fields were unremarkable. Fundoscopy revealed bilateral cystoid macular oedema (CMO) with no peripheral retinal dystrophy. Initial management with topical dorzolamide 2% three times daily for three months yielded no improvement. Fluorescein angiography showed no macular leakage, but extended widefield imaging demonstrated mild peripheral leakage and areas of nonperfusion, raising suspicion of retinal vasculopathy as macular telangiectasia type 2. Mild anterior vitreous cells were observed, without snowbanking. Pattern and full-field electroretinography excluded enhanced S-cone and Goldmann-Favre syndromes. A working diagnosis of intermediate uveitis was made, and a trial of oral prednisolone (50mg daily) led to rapid resolution of oedema. However, the CMO recurred on tapering, prompting the addition of azathioprine as a steroid-sparing agent. Genetic testing confirmed a compound heterozygous mutation in CRB1, establishing a diagnosis of CRB1-associated maculopathy. This case is clinically significant for its atypical phenotype: isolated CMO without pigmentary retinal changes, lack of response to carbonic anhydrase inhibitors, and steroid-sensitive oedema requiring immunosuppression. It posed a significant diagnostic challenge due to overlapping features with uveitis and retinal vasculitis, requiring a multidisciplinary approach involving imaging, electrophysiology, and molecular genetics. This case illustrates a distinctive and multifaceted phenotype of CRB1-associated disease that, to our

knowledge, remains underreported in the literature. Hence, highlighting the importance of broad differential diagnosis and personalised treatment strategies in atypical cases of CMO.

ID-125940
Characterization of Newly Diagnosed Ocular Myasthenia Patients: A Single-Centre Case Study
Devina Gogi, Janice Hoole
St James's University Hospital, Leeds, UK

Ocular dysfunction constitutes nearly 70% of initial symptoms in myasthenia gravis. Due to its varied clinical presentations, it often remains under-diagnosed and misdiagnosed.
This prospective study analyzed data from patients with newly diagnosed Ocular Myasthenia (OMG) between January 2023 and January 2025. Parameters included epidemiological factors, serology, electromyographic (EMG) findings, and the association with thymoma, progression to generalised myasthenia gravis (MG), and management strategies.
Fifteen patients were evaluated over the 2-year period, with a slight male predominance and older age at onset.
Ptosis (80%), often paired with variable ocular motility, emerged as the most common clinical presentation. Serological tests were positive in over 70% of patients, and EMG effectively confirmed the diagnosis in seronegative cases. Patients were managed through a multidisciplinary team approach. Pyridostigmine was the primary treatment, showing positive outcomes in most cases. However, a quarter of the patients progressed to generalised MG, necessitating immunosuppression. Thymoma was identified in two patients, with one benefiting from thymectomy.
Diagnosing OMG in patients with isolated ocular symptoms requires a high level of clinical suspicion, especially in cases presenting with ptosis and variable ocular motility. EMG proves valuable in seronegative patients. A multidisciplinary approach is crucial for managing these patients, as some may progress to generalised MG.

Thursday 02nd October 2025
09.30 am – 10.00 am – Myopia free papers session

ID-130034
Unilateral lateral rectus resection in patients with acquired distance esotropia: does it work?
Sara Syed, Adam Budd, Tracy Sanderson, Rehana Sadia, Anna Maino
Manchester Royal Eye Hospital, UK
To review the outcomes of lateral rectus resection on patients with acquired distance esotropia (ET).
We conducted a retrospective analysis of 30 symptomatic patients with acquired ET who were intolerant of prisms. The aetiologies were myopic ET (12), decompensated esophoria (6) and age-related distance ET (12). 5 patients had a history of previous medial recti surgery. Near and distance angles were measured over 2 post-operative visits. Data analysis was conducted with paired t-test and one-way ANOVA.
The average patient age was 49 (myopic ET), 28 years (esophoria) and 65 (age-related

ET). The average lateral rectus resection was 7.25mm (myopic ET), 6.5mm (esophoria) and 7mm (age-related ET). The distance angle reduced from 21 prism dioptres (PD) to 6 PD in the myopic ET group (mean difference 15 PD), from 21 to 5 in the esophoria group (mean difference 16 PD) and from 25 PD to 7 PD in the age-related ET group (mean difference 18 PD). There was no difference in post-operative near angle ($p=0.705$) or in reduction of distance angle among groups ($p=0.500$). 28 out of 30 patients had complete resolution of diplopia after surgery. Of the remaining two, one myope required a 6 PD prism and the other myope had a subsequent medial rectus recession.
Unilateral lateral rectus resection is an effective surgical approach for patients with distance esotropia. This was found to be true with varying ET aetiologies. There were no cases of post-operative incomitance or near esotropia and diplopia was resolved in 93% of cases.

ID-130131
How much is too much? An analysis of surgical dosage for myopic esotropia
Qasim Alarabiat, Victoria Tang, Elliot Taylor, Saurabh Jain
Royal Free Hospital, London, UK

Myopia is associated with various types of strabismus including concomitant exotropia or esotropia and incomitant strabismus fixus. The aim of this study was to study the surgical dosage required in patients with simple myopic esotropia for successful restoration of alignment. Simple myopic esotropia is esotropia associated with low to moderate myopia that is concomitant and worse for distance than near with a reduced or absent base in fusion range.
This is a retrospective study with 36 patients (14 males and 22 females) with a mean age of 43.5 years (SD 18.2 ; range 9 - 78 years) with myopic esotropia. All patients underwent an ophthalmic and orthoptic assessment including assessment of the angle of deviation at near and distance fixation. They underwent surgical intervention in the form of bilateral medial rectus recession (26 patients), unilateral MR recession (9 patients) and unilateral recess/resect (1 patient). The amount of surgery in mm per muscle was noted and they all had a postoperative evaluation with a repeat orthoptic evaluation as above.
The patients included had a mean spherical equivalent of −4.30 DS in the right eye (SD 2.7) and −4.30 DS in the left eye (SD 2.5). The average pre operative deviation for near was 21.75 prism dioptres (SD 14.3) and 24 prism dioptres (SD 12.49) for distance, the base out fusion range was characteristically high in the majority of the patients with average of 17.4 prism dioptres (SD 16.7) as opposed to a low base in fusion range with average of 2.27 prism dioptres (SD 3.29). We used an enhanced surgical dosage for these patients of double the usual surgical numbers. All patients demonstrated improvement in diplopia postoperatively, their average postop deviation for near being 0.61 prism dioptres (SD 7.03) and 1.77 prism dioptres (SD 5.7) for distance.
The average amount of surgical correction for our patients was 2.1 prism dioptre/ mm of surgery for near (SD 1.03) and 2.4 prism dioptre/ mm of surgery for distance (SD 0.75). We recommend a higher amount of surgical correction per prism dioptre of deviation in patients with myopic esotropia to achieve a better outcome.

ID-130251

Modification of Lateral Rectus Plication for Distance Esotropia in Adults

Robert Taylor

York and Scarborough Teaching Hospital Foundation Trust, UK

The prevalence of adult esotropia is becoming more common, in part due to an ageing population, and in part to increasing prevalence of myopia. In addition, there is now an understanding of the anatomical changes, sometimes termed heavy eye, and sagging eye.

The results of 14 patients are presented who complained of double vision primarily in the distance due to an esotropia, bigger in the distance.

These changes were managed with a plication of the lateral rectus in association with an equatorial repositioning to maximise the strengthening effect.

The variation in technique was stimulated by the observation that after resection, the position of the muscle belly would be more inferior, so the anatomical abnormality was exaggerated by the tightened muscle. A plication is half completed on the lateral recuts, which allows the surgeon to access the equatorial area using the fold of muscle tendon, as the muscle has not been dissected off the eye. Once the suture is placed at the equator, the plication is completed by folding over the redundant muscle tendon.

This modification has allowed small to moderate levels of esotropia to be corrected, with consistent good results, but does require a modification of dose as compared to a lateral rectus resection only. The technique is also possible under local anaesthetic, important in elderly patients.

ID-125943

Correlating Outdoor time, Screen-time and Myopia In pre-school Children: The COSMIC Study

Simran Khutan, Rebecca McLean, Mervyn Thomas, Sohaib Rufai

University of Leicester Ulverscroft Eye Unit, Leicester Royal Infirmary, Leicester, UK

The “myopia epidemic” has become a significant public health concern. Studies in school-aged children have shown at least 13-hours outdoors per week is protective against myopia, while increased screen-time is a risk-factor. However, little is known about these associations in pre-school children. The COSMIC study aims to explore these phenomena in children aged 1-4 years.

This Leicester-based mixed-methods study comprised a focus group and survey. We recruited four parents to a semi-structured focus group exploring pre-schoolers’ outdoor time, screen-time, driving factors and barriers. The focus group helped advertise and construct our online survey, including demographic questions, Likert scales and free-text responses.

Twenty-seven parents completed the survey over fourteen days. The mean age of children was 3 years; 52% were female. Whilst 85% of parents believe it is very important for their child to be outdoors regularly, only 15% of children achieved 2-hours per day outdoors. Consistent with focus group thematic analysis, main barriers to outdoor time were adverse weather (81%) and household responsibilities (67%). 15% of children own a device and 67% primarily use far-distance screens. Most parents (67%) believe hand-held screens to negatively affect children’s eye health and most (74%) agree or strongly agree that ‘screen-time reduces the amount of time my child spends outdoors.’ Screen-time motivations were education (48%) and occupying

children (48%). Our study has begun to shed light on the driving factors and barriers to outdoor time and screen-time in pre-school children. Further research and interventions are needed to protect pre-school children against myopia

ID-125927
Myopia-X-1: phase 2 randomised controlled trial of blue-light blind spot stimulation to reduce myopia progression in children: 6-month results
Annegret Dahlmann-Noor, Philipp L. Müller, Katrin Lorenz, Caroline Klaver, Gonzalo Carracedo, Hakan Kaymak, Ian Flitcroft, James Loughman, José Manuel González-Meijome, Marta Morales Ballús, Roxana Fulga, Tobia Peters
NIHR Moorfields Biomedical Research Centre, UK

Blue-light stimulation of the optic nerve head triggers dopamine release, mimicking the effect of sunlight. Using a VR-headset, a new smartphone app, Myopia-X, selectively directs blue light at the optic nerve head, whilst engaging the child in a game to incentivise adherence. Here we explored safety, tolerability and effectiveness over 6 months.
124 children age 6-12 years with myopia -0.75 to -5.00D took part in a phase-2 randomised controlled trial of Myopia-X 10 minutes twice daily vs active control (defocus-incorporated-multiple-segment-spectacles) at 11 sites across Europe. Primary outcomes: axial length (AL), cycloplegic spherical equivalent (SER).
Withdrawal rates were 28.8% vs 2.9% for Myopia-X/control. Mean AL change from baseline was 0.14 mm (95% CI, 0.12, 0.16) vs 0.08 mm (95% CI, 0.05, 0.10, p=0.004) for Myopia-X vs DIMS; mean change in SER was -0.19 D (95% CI, -0.26, -0.11) vs -0.16 D (95% CI, -0.26, -0.06, p>0.05). Median adherence was 57.3% (IQR 44.6 to 73.4). Adverse events included headache (5.9%), dizziness (2.5%), asthenopia, eye irritation/pain/pruritus, blurred vision, nausea, malaise (0.8% each).
Initial safety data are as anticipated; similar adverse effects have been reported with other treatments delivered via VR-headsets. Low sample size means that statistical analysis of effectiveness is not possible; the observed effect size could be used to design further trials of Myopia-X. High attrition and low adherence indicate that more engaging/incentivising games are needed.
Myopia-X is a safe and novel treatment option to slow myopia progression; further development and evaluation are warranted.

ID-125926
Cost of myopia in UK and France
Annegret Dahlmann-Noor, Ling Lee, Laura De Angelis, Erica Barclay, Nina Tahhan, Kathryn Saunders, Emma McConnell, Neema Ghorbani Mojarrad, Robert Langford, Anton Jaselsky, Nicolas Leveziel, Dominique Bremond-Gignac, Serge Resnikoff, Tim Fricke
NIHR Moorfields Biomedical Research Centre, UK

Decisions about public funding for myopia-control interventions in children and young people depend on long-term cost implications, f.ex. cost reductions for management of myopia-associated complications.
In order to support a health-economical argument, we modelled lifetime costs of myopia in UK and France for 5 scenarios: conventional management (Single-Vision-Lenses, SVL), low-concentration atropine, myopia-control spectacles (MCS) and contact

lenses, and orthokeratology.
Each modelled scenario began with an 8-year-old child with -0.75DS. We used natural progression data to determine the likelihood of possible refractive outcomes with risk of faster/slower progression. We collected societal care costs, direct and indirect, from published sources, key informants, and informal surveys. We estimated and compared lifetime cost under each scenario and calculated cost-ratios as myopia-control cost divided by conventional-care cost.
With SVL, estimated lifetime cost of myopia in the UK is US$48,170/US$29,664 with faster/slower progression (France: US$32,492/US$22,606). Cost ratios for myopia-control options in the UK range from 0.50-0.69/0.73-1.00 with faster/slower progression (France: 0.60-0.81/0.81-1.10). MCS provide the greatest cost savings. Girls/women incur higher lifetime costs due to higher contact lens wear rates, prevalence of vision impairment and longer life expectancy.
Limitations: we excluded myopia-prevention measures, such as increasing time outdoors, which would reduce lifetime cost, and recent light-based interventions, due to lack of UK/European data.
Myopia-control during childhood likely reduces total lifetime cost of myopia, probably by reducing progression, simpler corrective lenses and reduced risk of complications and vision loss. The economic advantage is greatest for those with fast progression.

Thursday 02nd October 2025
10.45 am – 11.15 am – Most satisfying case free papers session

ID-130141
Limbal dermoid cysts excision with corneal graft transplantation in paediatric patients: A case series of outcomes and complication rate
Sayed Faraj, Susmito Biswas
Manchester Royal Eye Hospital, UK

To evaluate the surgical outcomes and complication rates associated with limbal dermoid cyst excision followed by corneal graft transplantation in a paediatric population.
This retrospective case series analysed ten paediatric patients ages 3 months to 16 years who underwent surgical excision of corneal limbal dermoid with subsequent anterior lamellar corneal transplantation between 2013 and 2025 at Manchester Royal Eye Hospital. Patient demographics, clinical presentation, surgical details, postoperative outcomes, and complications were reviewed. Follow-up ranged from 3 to 29 months. Complete excision was achieved in all cases. Visual acuity was maintained or improved in 6 of 10 patients postoperatively. Complications included postoperative astigmatism in 3 patients (30%), corneal melt in one patient, and graft failure in one patient. Patient and parent satisfaction was reported in most cases. One patient was lost to follow up. Surgical excision of limbal dermoid cysts followed by corneal graft transplantation in paediatric patients appear to generally be safe and effective in paediatric patients. This case series report complete excision achieved in all cases, good visual outcome, and favourable visual and cosmetic outcomes. The risk for corneal failure and corneal melt, highlighting the need for awareness of potential complications. Further studies with larger sample sizes and extended follow-up periods are warranted to validate these findings.

ID-130243
Functional analysis of the RPE65 variant p.Thr162Pro leads to the treatment of the first Irish patient with Voretigene Neparvovec
Christine Bourke, John Maguire, Jane Farrar, Paul Kenna, Emma Duignan, Donal Brosnahan
Crumlin Children's Hospital, Dublin, Ireland

Leber Congenital Amaurosis (LCA) is a genetically heterogeneous inherited retinal dystrophy (IRD) caused by mutations in over 20 genes, including RPE65. Voretigene Neparvovec is the first and only licensed ocular gene therapy for RPE65-mediated retinal dystrophy. While IRDs affect approximately 5000 individuals in Ireland, biallelic RPE65 mutations remain a rare cause of disease.
A female child presented with congenital visual impairment, nystagmus, and an unrecordable electroretinogram. Genetic testing identified compound heterozygous variants in RPE65, including the novel p.Thr162Pro variant, which lacked sufficient evidence for pathogenicity. Functional assays conducted in collaboration with international research teams demonstrated a significant loss of enzymatic activity and structural disruption, leading to reclassification of the variant as pathogenic.
Following confirmation of molecular diagnosis, the patient underwent successful bilateral subretinal gene therapy. Post-treatment, visual acuity improved markedly, and electroretinographic responses were restored, with observable functional gains in daily activities.
This case underscores the critical role of functional validation in genetic diagnostics, particularly for high-cost, high-risk interventions such as gene therapy. While in silico models aid variant interpretation, functional assays remain crucial for reclassifying variants of uncertain significance (VUS) and justifying treatment eligibility.
The successful treatment of this patient exemplifies the power of translational medicine and intercontinental collaboration in bringing cutting-edge therapies to rare disease patients. As gene therapy becomes more accessible, integrating functional analysis into diagnostic pipelines could optimise patient selection and equitable access to treatment.

ID-130329
Static on the Line: The Interrupted Conversation Between Nerve and Muscle in Congenital Myasthenic Syndromes
Tracie Liu, Ellie Anderson, Vineeta Munshi
Sheffield Children's Hospital, UK

The congenital myasthenic syndromes are a body of inherited neuromuscular disorders caused by defects in the neuromuscular junction, posing a challenging differential with varied genotypes and phenotypes. With an incidence of 22.2 cases per million children, this condition can be easily overlooked and investigated as conditions with similar presentations, such as congenital fibrosis of extraocular muscles. Early diagnosis however, is crucial for optimal treatment given the potential systemic complications, such as respiratory distress, and potential long-term visual consequences such as amblyopia. This case series will discuss four patients with CMS and their presentation, diagnostic process, disease progression, and response to pyridostigmine.
Four Slovakian patients presenting between the ages eleven months and seven years were referred into the local Ophthalmology services with poor vision and ptosis as

primary complaints. On examination, all had ophthalmoplegia worse on upgaze initially which progressively involved other directions of gaze. All patients were referred to neurology for joint management and further investigations including EMG testing, anti-AChR and anti-MuSK antibodies, and genetic testing. There was an average time of presentation to genetic diagnosis of 26.5 months. On gene sequencing, all were homozygous for CHRNE, the gene accounting for over 50% of CMS cases. Of the four patients, three had partial or little improvement only in symptoms on pyridostigmine, with one not tolerating the side effects.
CMS still presents diagnostic uncertainty to clinicians. An awareness of these conditions, however rare, is vital as an Ophthalmologist as they can be a first presentation to medical services via Ophthalmology.

Thursday 02nd October 2025
15.15 pm – 15.45 pm – Innovations free papers session

ID-130028
Prediction of long-term visual outcomes in infantile nystagmus using handheld optical coherence tomography: a 12-year longitudinal study
Sohaib Rufai, Michael Hisaund, Rebecca McLean, Ravi Purohit, Gail Maconachie, Viral Sheth, Helena Lee, Frank A. Proudlock, Irene Gottlob, Mervyn G. Thomas
1 University of Leicester, UK, 2 Oxford University Hospitals, UK, 3 University of Sheffield, UK, 4 University of Southampton, UK

Infantile nystagmus can be worrying for parents and families. It is unknown whether foveal hypoplasia grading in infantile nystagmus can predict long-term visual outcomes. We evaluated foveal hypoplasia grading using handheld optical coherence tomography (OCT) as a predictor of long-term visual acuity and function.
We conducted a prospective longitudinal study from 2012 to 2024. Handheld OCT (Envisu C2300, Leica Microsystems) was performed in preverbal children with nystagmus. The Leicester Grading System for Foveal Hypoplasia was used. Participants were followed up aged 9-12 years, which allowed sufficient time to optimise visual acuity (VA) with surgery (strabismus/head posture) and subjective refraction, where appropriate. The main outcome measure was distance VA in logMAR (Thomson Test Chart). Secondary outcome measures included near VA (Thomson Test Chart), colour vision (Ishihara's Tests), contrast sensitivity (Thomson Test Chart) and stereopsis (Frisby Near Stereotest). Data were analysed using a linear mixed regression model.
Nineteen children with infantile nystagmus (idiopathic infantile nystagmus: 5; albinism: 12; achromatopsia: 2) were recruited. Median age at first examination was 22 months (range: 1-33; IQR: 13-30). Median follow-up was 140 months (range: 110-147; IQR: 135-143). Foveal hypoplasia grade at first examination was significantly associated with future distance VA ($R=0.86$, $F=98$, $P<0.0001$), near VA ($R=0.82$, $F=74$, $P<0.0001$), colour vision ($R=0.60$, $F=20$, $p<0.0001$), contrast sensitivity ($R=0.82$, $F=76$, $P<0.0001$) and stereopsis ($R=0.70$, $F=16$, $P=0.001$).
This world-first study demonstrates that handheld OCT can predict long-term future visual acuity and function in infantile nystagmus.
Foveal hypoplasia grading can guide diagnosis, prognosis, counselling and clinical management in infantile nystagmus.

ID-130313

Enhancing Paediatric Ophthalmology Referrals and Communication with Optometrists: An Evaluation of an online referral platform

Elena Novitskaya, Sarah Farrell
Addenbrooke's Hospital, Cambridge, UK

Conventional referral systems provide limited communication with optometrists, particularly in image sharing. Post-COVID recovery plans led to an online referral platform, Cinapsis, being commissioned within the Cambridgeshire & Peterborough Integrated Care System (ICS).which was fully adopted by paediatric ophthalmology at Cambridge University Hospitals (CUH) in October 2021. This system streamlines referrals, enables image sharing from local optometrists, and provides Advice & Guidance (A&G) in real time. , facilitating secure and effective communication between optometrists and ophthalmologists.
1. To evaluate the efficiency of referral triage and A&G decisions.
2. To assess optometrists' satisfaction with communication via the Cinapsis system.
Retrospective analysis of Cinapsis referral data received by CUH (Jan-Dec 2023) and a prospective survey of local optometry practices within the ICS. Parameters assessed: speed of triage, number of accepted referrals, proportion of A&G-only referrals, and optometrists' satisfaction with the quality, speed, and educational value of advice.
Cinapsis enabled rejection with advice in 25% of cases, compared to 5% with conventional referrals. The average triage and advice turnaround was 24 hours with Cinapsis, versus approximately 7 days with conventional systems. 90% of optometrists rated the advice speed as "fast" or "very fast," 95% found it reassuring, and 90% stated that Cinapsis "significantly contributed to their clinical development" in paediatric practice.
Cinapsis reduced unnecessary referrals to hospital-based services (HES) and provided quick turnaround for paediatric ophthalmology. It empowered optometrists to manage patient care in the community and facilitated real-time education through detailed guidance from consultants.

ID-130400

Establishing a Regional Telemedicine Retinopathy of Prematurity (ROP) Collaboration Service

Caroline Kilduff, Alasdair Kennedy, Ashan Herath, Lucy Barker, Peter Thomas, Himanshu Patel
Moorfields Eye Hospital, London, UK

Retinopathy of Prematurity (ROP) is a leading cause of childhood blindness. Infants suspected of requiring treatment are transferred to tertiary centres. Each neonatal transfer incurs high costs and risks to the infant and should only occur if absolutely necessary. Technological advancements have enabled widefield digital-imaging during screening, supporting remote care-models. We provide a comprehensive specification for a Regional Telemedicine ROP Collaboration Service, outlining the framework for data transmission, case discussion, and management planning to promote interhospital cooperation.
Moorfields outreach centres at Homerton and St George's Hospital treat infants from their NICUs and several referring units. A virtual regional ROP meeting has been set-up to support these referrals. The CrossCover digital platform has been customised to

enable screeners to refer babies, securely transmitting clinical details and high-resolution retinal images ahead of the meeting. The service-coordinator manages these referrals and service workflows within the platform. The weekly meetings, via Microsoft Teams, allow discussions among screening and treating ophthalmologists, facilitating consensus-driven management decisions, appropriate transfers and education opportunities. Post-meeting, infant profiles in CrossCover are kept active or monitored by failsafe officers, with downloadable PDF-summaries for patient records.
The service has undergone digital safety evaluation, with Go Live in early May 2025. Evaluation metrics include safety, avoided transfers, meeting participation and feedback, educational impacts, and management decisions influenced by clinical discussions.
Studies evaluating ROP telemedicine have proven the accuracy and usefulness of remote screening using digital images. This collaborative telemedicine model aims to further optimise patient outcomes whilst improving regional partnership and clinician education.

ID-130401
Streamlining Paediatric Ophthalmology Care: Implementing an Advice-and-Refer Service to Enhance Community Management and Reduce Hospital Referrals
Caroline Kilduff, Hussain Khambati, Sejal Mistral, Ashan Herath, Peter Thomas, Anne-Marie Hinds, Gulunay Kiray, Elisabeth De Smit, Lucy Barker
Moorfields Eye Hospital, London, UK

Hospital paediatric ophthalmology services face significant pressures, with waiting times between 18-42 weeks, falling short of Referral-to-Treatment targets. Many community clinicians lack confidence in managing paediatric ophthalmology cases, and commissioning limitations restrict community-based care, leading to unnecessary hospital referrals or reliance on informal communication channels. A recent clinic-based audit demonstrated that 10% of paediatric referrals could have been effectively managed in the community with specialist advice. There is currently an unmet need for formal advice pathways.
To address this gap, a Paediatric Advice-and-Refer Service is being piloted in southwest London through collaboration between Moorfields South's paediatric ophthalmology team, the Local Optical Committee, and the Single-Point-of-Access (SPoA) team. The service adapts an existing medical retina Advice-and-Refer model for paediatric needs, utilising the secure CrossCover digital platform for structured, bidirectional communication and worklist management. Engaged optometrists, from invited practices, submit queries to the consultant paediatric ophthalmologists via a dedicated email. Queries are categorised for community management, hospital referral, or emergency escalation, with structured responses provided promptly. Referral conversions and patient contact is handled by the hospital team.
The pilot launches in April 2025 and will run for three months, with key outcomes including safety, common presentations, impact of advice on referral decisions, service engagement, and educational value.
This formalised service provides community clinicians with timely expert advice, reducing unnecessary hospital-attendances and dependence on informal networks. Shared clinical decision-making aims to improve patient management. The service also intends to foster educational opportunities and strengthen professional collaboration between primary and secondary care providers.

Thursday 02nd October 2025
17.00 pm – 17.30 pm – Strabismus skills share free papers session

ID-130118
Dual-Augmented Transposition of Vertical Recti in Chronic Abducens Palsy
Mohamed Farid
NHS Tayside, UK

To report the results of dual augmentation of vertical rectus muscle transposition (VRT) in the treatment of chronic sixth nerve palsy.
This is a retrospective review of medical records of patients with chronic sixth nerve palsy who underwent dual augmented VRT with or without medial rectus (MR) recession. Data collection included sex, age, laterality, and duration of postoperative follow-up. Pre- and postoperative limitation of abduction and adduction were recorded using a 6-point scale. Improvement of esotropia in prism diopter (PD), head turn in degrees, and limitation of abduction and adduction were reported and analyzed.
Fourteen cases were identified. Mean patients' age at the time of surgery was 22.5 years. Postoperatively, esotropia and head turn were corrected by a mean of 31.3 PD and 18.2 degrees, respectively. Limited abduction was improved from -4.3 to -1.6, while in cases that underwent MR recession, adduction declined from 0.4 to -0.3. Postoperative induced small-amplitude hypertropia was reported in 3 cases.
Dual augmented VRT was effective in controlling esotropia, head turn, and limited abduction associated with chronic sixth nerve palsy with low rate of induced vertical deviation. Combined MR recession carries a risk of induced limitation of adduction.

ID-130334
A nasal approach to a superior oblique tuck in the management of superior oblique palsy
[1]Amelia Rees, [2]Elisabeth De Smit, [2]Alasdair Kennedy
[1]University of Manchester, UK, [2]Moorfields Eye Hospital, London, UK

Superior oblique palsy (SOP) is the most common cyclovertical muscle palsy, often presenting with vertical misalignment, excyclorotation, and abnormal head posture. A superior oblique tuck (SOT) is a widely accepted surgical option in specific clinical scenarios. While a temporal approach is conventionally used, we present a novel nasal approach to the SOT.
A 71-year-old female presented with diplopia and a left head tilt. Examination revealed right hypertropia measuring 7 prism dioptres (PD), which increased to 12 PD on laevodepression, and 6 degrees of excyclorotation consistent with right SOP. Initial management with inferior oblique disinsertion yielded little improvement, and a subsequent temporal SOT also failed to correct the misalignment.
Given persistent symptoms, a revision SOT was performed, using a nasal approach due to extensive scarring temporally. Intraoperative forced duction testing confirmed superior oblique laxity, and a tuck was performed nasal to the superior rectus.
Six months postoperatively, the patient's diplopia had improved significantly in primary position and downgaze. The right hypertropia had reduced to 1 PD in primary position and 4 PD in laevodrepression and the excyclorotation had improved. A mild iatrogenic Brown syndrome resulted, though this improved over time.

In conclusion, this is the first reported case of a nasal SOT, highlighting it as a viable surgical option in the management of SOP where alternative treatment options have been exhausted. A surgical video is included to illustrate the technique, offering insight into its application for complex SOP cases.

ID-130343
Efficacy of a Combined Recession-Resection Procedure on a Rectus Muscle for Incomitant Strabismus
Ken Kawamoto, Clea Southall, Saurabh Jain
Royal Free Hospital NHS Foundation Trust, UK

To evaluate the efficacy of combined recession-resection (Scott) procedure in managing incomitant strabismus where the deviation is more pronounced in a cardinal position of gaze compared to the primary.
A single-centre retrospective analysis was conducted on Scott procedures performed between 2012 and 2024. Recessions for the maximal deviation was combined with smaller resections using hang-back adjustable sutures. Pre-operative and post-operative orthoptic measurements were compared.
14 adult patients were included with a mean (SD) age at surgery of 40.3 (±14.0) years. Ten had prior strabismus surgery, and five had previous botulinum toxin treatment. 14 rectus muscles were treated; 5 medial, 4 inferior, 3 superior, and 2 lateral rectus muscles. Pre-operatively, the mean (SD, range) deviation in primary gaze was 6.1 prism dioptres (PD) (±5.7PD, 0-20PD), and the mean (SD, range) maximum deviation in eccentric gaze was 22.1PD (±17.5PD, 3-80PD). Post-operatively, the mean (SD, range) deviation in primary gaze was 1.6PD (±2.7 PD, 0-10PD), and the mean (SD, range) maximum deviation in eccentric gaze was 8.6PD (±17.5PD, 0-70PD). A reduction in incomitance of more than 50% was seen in 86% (n=12) of patients.
A paired t-test showed a significant improvement in deviation post-operatively both in primary gaze (mean -3.50PD; 95%CI: -1.60 - -6.66, p=0.0035) and in eccentric gaze (-14.30PD; 95%CI -10.4 - -18.2, p<0.0001).
The Scott procedure effectively reduces incomitance with minimal impact on primary gaze alignment. It demonstrates good outcomes in patients with paretic strabismus, residual childhood strabismus, and those with prior surgery or botulinum toxin treatment.

ID-130002
Inferior Rectus Recession with Capsulopalpebral Fascia advancement to Prevent Lower Lid Retraction
Iman Daoud [1], Sanil Shah [2], Caroline Dodridge [2], Manoj Parulekar [12]
[1] Birmingham women and children's Hospital, [2] Oxford university hospitals, UK

Inferior rectus recession carries the risk of lower eyelid retraction due to its attachment with capsulopalpebral fascia (CPF). This study evaluates a modified technique in which the CPF is meticulously detached from interior rectus and reattached in an advanced position following inferior rectus recession to minimize postoperative lower eyelid malposition.
A retrospective analysis was conducted on patients who underwent inferior rectus recession between 2016 and 2024 under the care of a single consultant. Both functional and aesthetic outcomes were assessed. Postoperative photographs were reviewed to

evaluate lid retraction and contour.
A total of 41 patients (20 males, 21 females) with a mean age of 52.37 years were included. None of the patients exhibited lid retraction or changes in lid contour. No asymmetry in lower lid position was observed between the two eyes.
CPF reattachment following inferior rectus recession effectively preserves lower eyelid position, minimizing the risk of lid retraction and asymmetry. This simple yet effective modification enhances surgical outcomes and may serve as a valuable technique in strabismus surgery.

ID-130003
Medial rectus periosteal fixation for large angle exotropia in third nerve paresis at Moorfields Eye Hospital
Charlie Hennings[1], Katie Williams[1,2], Jameel Mushtaq[1], Aditi Das[1], Maria Theodorou[1], Naz Raoof[1], Gill Adams[1], David Verity[1]
[1] Moorfields Eye Hospital, London, UK, [2] Great Ormond Street Hospital, London, UK

Medial wall periosteal fixation treats severe divergent ocular misalignment by anchoring the globe to the medial orbital periosteum. It is reserved for managing large-angle deviations and refractory strabismus when standard surgeries would fail. We present a large series of its application in the treatment of third nerve palsy.
We performed a retrospective review of children and adults seen at our institution with a diagnosis of third nerve palsy who underwent periosteal fixation of the medial rectus muscle. We used free text search functions on our electronic medical records to identify cases. Presenting features including demographics, third nerve palsy aetiology, full orthoptic assessment with pre-operative deviation, surgical technique, and outcome were examined.
We identified 35 patients who underwent surgery at a mean age of 39 years (range 4-80). The majority of third nerve palsy aetiology were congenital. The mean angle of exodeviation pre-operatively was 70 D (30-180). 45 % had undergone previous surgery. Post-operative deviation at a median of 4 months gave an average residual deviation of 26 BI PD (SD 23).
In the majority of cases, medial rectus insertion was anchored to the periosteum of the posterior lacrimal crest via a retrocaruncular transconjunctival approach combined with lateral rectus fixation to temporal orbital soft tissue - which we will describe. This approach resulted in an average reduction in deviation of 50PD (SD 33PD) for third nerve palsies with minimal medial rectus function.
Large angle exodeviations, including those with residual deviations after previous surgery, can be successfully improved with this surgical approach.

Friday 03rd October 2025
10.05 am – 10.25 am – The "whole child" free papers

ID-130013
Neurodivergent Children with Corneal Ulcer – Food for Thought?
Taiwo Makanjuola, Esra Karabulut, Paul Haigh, Annie Joseph
Royal Stoke University Hospital, UK

Vitamin A deficiency (VAD) is a well-recognised cause of preventable childhood blindness globally but rarely considered in developed countries. Neurodivergent children (NDC) with avoidant/restrictive food intake disorder (ARFID), may be at risk. We present two cases of neurodivergent children with corneal ulcers secondary to severe VAD.
Case 1: A 9-year-old boy with autism, non-verbal and long-standing restrictive diet presented with bilateral vision decline, headache and photophobia. Examination under anaesthesia (EUA) revealed bilateral optic disc swelling and large right corneal ulcer with keratinisation of ocular surface and Bitot spots.
Case 2: A 10-year-old girl with autism, non-verbal and coeliac disease, presented with painful red eyes and mucopurulent discharge. EUA revealed right corneal ulcer with keratinisation of ocular surface and Bitot spots.
Vitamin A levels were unrecordable in both patients.
Both patients underwent EUA with intramuscular vitamin A (100,000 IU), topical antibiotics and lubricants. Significant clinical improvement followed.
VAD must be considered in acute, severe ocular surface disease in NDC, who may go under the radar for routine nutritional assessments, increasing the risk of delayed diagnosis and treatment.
VAD related eye disease is preventable and reversible if diagnosed and treated early. It is not common in developed countries and may go unrecognised unless we raise awareness of increasing prevalence of VAD and micronutrient deficiencies in NDC. Commissioning restrictions deny nutritional and psychological support for these children. As healthcare professionals, we must advocate for these vulnerable patients to ensure they receive the care they need.

ID-130124
Evaluation of Usher Syndrome Screening in Children with Bilateral Sensorineural Hearing Loss: A Case Series from a Tertiary Referral Center
Eleanor Kelly, Vijay Tailor-Hamblin
Moorfields Eye Hospital, UK

Moorfields Eye Hospital has run a sensorineural hearing loss (SNHL) screening clinic since 2013 to identify Usher syndrome. This study evaluates the clinic's effectiveness and its alignment to the seventeen National Deaf Children's Society (NDCS) ophthalmology quality standards.
A retrospective review of patient records was conducted from 01/03/2013 to 01/03/2025. We collated information on the referral origin, ocular findings and molecular diagnosis.
A total of 293 referrals were received in this period, the majority from audiology services. A total of 52 full data sets between 01/03/2015 and 01/03/2022 were analysed. The mean age of referral was 4.11 years old (range: 2 months to 13 years).

Refractive errors were found in 11.5% of children (6 children). Genetic testing was performed in 24 children, with 12 testing positive—most commonly for CDH23 mutations.
The findings suggest that once Usher syndrome is excluded by genetic testing, regular follow-up in the hearing loss clinic offers limited value, potentially explaining the higher DNA rate in this cohort. While no patients were diagnosed with Usher syndrome in this cohort, those confirmed to have the condition were referred for additional support. The clinic met several NDCS Quality Standards, including Standard 10, by providing timely ophthalmic assessments. However, it fell short of fully meeting Standard 12 due to inconsistent communication with referring professionals.
Improving internal coordination and communication with referrers, along with better tracking of genetic testing, would enhance the clinic's alignment with national standards and improve care for children with combined hearing and vision concerns.

ID-130238
Seeing Beyond Vision: The Role of Paediatric Counselling in Ophthalmology Services
Simrun Virdee, Genene Grubb, Lucy Barker
Moorfields Eye Hospital, London, UK

Psychosocial challenges linked to ophthalmological conditions in children are often under-recognised, yet they can have significant short- and long-term effects on mental health, social development and education. Moorfields Eye Hospital offers an in-house paediatric counselling service to support children and young people navigating these difficulties. This study explores reasons for referral and identifies which patient groups may benefit most from early psychological input.
A retrospective cross-sectional review was conducted of all patients seen by the paediatric counsellor between 1st March 2024 and 1st March 2025. Data collected included demographics, ophthalmic, medical and psychiatric diagnoses, referral reasons and social context.
41 patients (mean age 10 years 11 months, range 5–17) were seen. 59% were female and 73% Caucasian. Most had bilateral (83%) and congenital (54%) conditions. Referral reasons included anxiety (39%), school difficulties (32%) - 62% of whom reported bullying - low mood (12%) and difficulty coping with diagnosis (17%). Medically unexplained visual loss accounted for 12%. Home difficulties were noted in 10%, 75% of which involved parental separation. 24% had a formal psychiatric diagnosis. Notably, 59% were not registered as sight impaired.
Children with both organic and non-organic visual conditions often carry hidden psychosocial burdens. Early adolescence, difficulties with peer relationships and home instability emerged as key vulnerability factors.
Paediatric counsellors can provide vital psychological support to ophthalmology services, bridging the gap between routine care and specialist mental health input. Clinicians should routinely enquire about psychosocial wellbeing, especially in higher-risk groups, and consider referral where services are available.

ID-130242

Can provision of near-vision glasses as an early intervention improve visual outcomes in infants at risk of perinatal brain insult?

[1,2] Raimonda Bullaj, [3] Leigh Dyet, [4] Catey Bunce, [2] Neil Marlow, [2] Caroline Clarke, [1] Naomi Dale, [5] Kathryn Saunders, [6] Cathy Williams, [3] Subhabrata Mitra, [7] Anna Horwood, [8] Helen St Clair Tracy, [1] Richard Bowman

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[5] Ulster University, Ireland, [6] University of Bristol, UK, [7] University of Reading, UK,
[8] University of St Andrews, UK

Cerebral visual impairment is the most common cause of visual impairment in children, often accompanied by accommodative deficits, which can significantly impact vision and development, especially in infants for whom near vision is critical.
We conducted a 3-arm, parallel-group, open-label randomised feasibility trial involving infants born <29 weeks gestation or full-term with hypoxic-ischaemic encephalopathy (HIE). Interventions included: no spectacles (Arm A), near-vision spectacles (+3.00DS add) from 8 weeks (Arm B1), or from 16 weeks (Arm B2) post-term age. Outcome measures at 3- and 6-month follow-up included LogMAR vision and object permanence within a test battery of child development for examining functional vision (ABCDEFV).
Of 70 families approached, 35 attended baseline assessments, and 31 completed the study. Non-attendance was mainly due to inpatient stay, infant health, and scheduling conflicts. Mean LogMAR vision improved from baseline to 6-month follow-up in Arm A (0.47 ± 0.45), Arm B1 (0.63 ± 0.43), and Arm B2 (0.37 ± 0.36). Among the 29 premature infants, improvements were 0.35 ± 0.35 (Arm A), 0.63 ± 0.46 (Arm B1), and 0.34 ± 0.40 (Arm B2). Object permanence at 6 months was 28% (A), 60% (B1), and 44% (B2). The odds ratio (OR) for A vs B1 was 3.75 (95% CI 0.47–29.75).
Future protocol adjustments include home and inpatient visits, extending visit windows to 6 weeks, and recruiting only very premature infants.
This study demonstrates feasibility for a definitive RCT to evaluate the impact of early near-vision spectacles on visual outcomes, suggesting potential benefits for vision and development.

ID-130110

Characterization of persistent Higher Visual Function Deficits (HVFDs) in adults with early-onset Cerebral Visual Impairment (CVI)

Arvind Chandna [1,2], Silvia Veitzman [2], Mike Wong[2]; Joseph Towler[1]; Julie Senior[1]
[1] AlderHey Children's Hospital, Liverpool, UK, [2] Smith Kettlewell Eye Research Institute, San Francisco, USA

Higher Visual Function Deficits (HVFDs) in Cerebral Visual Impairment (CVI) have primarily been studied in children, but little is known about their persistence into adulthood, despite CVI being recognized as a lifelong condition.
This prospective controlled study investigated HVFDs in adults with early-onset CVI (AEOCVI) using an adapted Higher Visual Function Question Inventory (HVFQI-59), comparing them with adult neurotypicals (ANTs) and adults with late-onset neurological visual impairment (ALONVI). Comparisons were also made with our published cohort of 92 children with CVI (CCVI) and 127 neurotypical children (CNTs).
The adult cohort with detailed clinical findings included AEOCVI (n=34; mean age: 36.9

± 15.8), ALONVI (n=23; mean age: 29.3 ± 10.2), and ANTs (n=80; mean age: 47.0 ± 16.0). Mean binocular visual acuities were 0.27±0.34 (AEOCVI), 0.12±0.30 (ALONVI), and 0.01±0.03 (ANTs). HVFQI-59 responses were scored on a 5-point Likert scale (Never-Always), with scores ≥3 indicating HVFDs in CVI. Two indices were calculated: Severity Score (SS; mean response score; range 1-5) and Spectrum Index (SI; proportion of responses ≥3; range 0-1).
Significant differences in SS and SI were found between AEOCVI vs. ANTs and ALONVI vs. ANTs (both $p \ll 0.00001$). AEOCVI and ALONVI differed non-significantly ($p > 0.1$), though AEOCVI scores trended higher. HVFD profiles in AEOCVI and ALONVI were similar to those in CCVI ($p > 0.1$).
These findings confirm that HVFDs in early-onset CVI persist into adulthood. The HVFQI-59Q is a valid clinical tool for adult assessment, highlighting the need for lifelong CVI monitoring and further study of HVFDs in both adult groups.

Friday 03rd October 2025
11.05 am – 11.30 am – Diversifying the role of orthoptists free papers

ID-130007
Long term outcomes in intermittent distance exotropia: a retrospective comparison of non-surgical management options
Sara Syed, Adam Budd, Tracy Sanderson, Rehana Sadia, Anna Maino
Manchester Royal Eye Hospital, UK

To report and compare the outcomes of a consecutive series of paediatric patients with intermittent distance exotropia (IDEX) who were referred for strabismus surgery.
A retrospective analysis of 440 consecutive patients with IDEX and Newcastle control scores (NCS) greater than 3, referred for strabismus surgery to the Paediatric Ophthalmology clinic, was conducted. Children were discharged, listed for strabismus surgery, managed with non-surgical methods or observed. Non-surgical methods included over-minusing lenses, alternate monocular occlusion for one hour a day and orthoptic exercises. Documented outcomes were surgical listing for strabismus surgery or discharge due to satisfactory alignment. Data was analysed with Kaplan-Meier survival analysis and Fisher's exact test.
Out of 440 children, 102 were discharged after their first visit due to spontaneous improvement of their NCS. 97 children with poor control of deviation and/or deviation larger than 30 prism dioptres were listed for strabismus surgery after the first consultation. The remaining 241 patients were observed by the orthoptics team (164 children) or treated with non-surgical methods (77 children: 32 had over-minusing lenses, 24 alternate occlusion, 14 orthoptics exercises and 7 more than one method). There was no significant difference in Kaplan-Maier curves ($p=0.117$). Patients assigned orthoptic exercises had better outcomes.
Our data suggests that non-surgical methods demonstrate similar long-term results. However, a higher proportion of patients utilising over-minused lenses required strabismus surgery compared with those who solely undertook orthoptic exercises.

ID-130153
Orthoptic-led Paediatric Eye Emergency Service: A Service Evaluation
Rahilah Bukhari, Jerald William
University Hospital Coventry & Warwickshire NHS Trust, UK

The Orthoptic-led Paediatric Eye Emergency Service, an established and dedicated sub-service within Eye Casualty, delivers efficient, child-focused care in a separate environment from adult services. This innovative model facilitates thorough assessments, ensures timely access to urgent and specialist care, and minimizes inappropriate referrals to Paediatric Ophthalmology. This evaluation examines its four-year impact, focusing on referral appropriateness, appointment outcomes, and stakeholder satisfaction.
A retrospective analysis of MediSIGHT records and stakeholder surveys was conducted to evaluate appointment outcomes, stakeholder satisfaction, patient journey times, and cost efficiency. Core components of the service model included process maps, screening protocols, structured referral pathways, and regular audits.
The evaluation demonstrated a sustained decrease in inappropriate referrals to Paediatric Ophthalmology, dropping significantly from 85% to 25%. Comprehensive assessments ensured prompt treatment, with over 51% of cases discharged at first visit and only 3% requiring urgent same-day investigations. Surveys and patient journey maps highlighted high levels of satisfaction, improved communication, reduced waiting times, and the significance of tailored environments designed for children. Additionally, a cost-benefit analysis revealed reduced strain on healthcare resources due to more targeted referrals.
The Orthoptic-led Paediatric Eye Emergency Service effectively addresses key challenges in paediatric ophthalmology through its structured, child-centred approach. By improving patient outcomes, optimizing resource use, and enhancing stakeholder satisfaction, this service demonstrates strong potential as a scalable framework for broader implementation.

ID-130015
Orthoptic-led Paediatric Ophthalmology Clinic: A Service Review
Gilian Lowdon, Jennifer Earl, Helen Haggerty
Royal Victoria Infirmary, Newcastle upon Tyne, UK

A review of the orthoptic-led paediatric ophthalmology service (OPS) at Newcastle Eye Centre was performed to assess its effectiveness and compare condition specific outcomes for patients attending the service.
Retrospective data collection for patients attending OPS between September 2022-December 2024 with review of diagnosis, treatment and outcomes.
Epiphora (n=106): 45 (42%) listed, 28 (26%) discharged, 12 (11%) reviewed, 18 (17%) PIFU, 3 (3%) consultant referral. 79/106 (75%) managed independently: 1/106 required doctor prescription. 27 (25%) virtual advice. Chalazia (n=60): 10 (17%) listed, 22 (37%) discharged, 14 (23%) reviewed, 14 (23%) PIFU. 46/60 (77%) managed independently: 22/46 required doctor prescription. 14 (23%) virtual advice. Blepharitis (n=26): 12 (46%) discharged, 12 (46%) reviewed, 1 (4%) PIFU, 1 (4%) consultant referral. 12/26 (47%) managed independently: 3/12 required doctor prescription. 14 (54%) virtual advice. Allergic eye disease (n=34): 8 (24%) discharged, 20 (59%) reviewed, 5 (15%) PIFU, 1 (3%) consultant referral. 24/34 (71%) managed

independently: 16/24 required doctor prescription. 10 (29%) virtual advice.
The majority of patients were independently managed (71%) with only 4% requiring referral to a consultant clinic. As a new service, numbers requiring virtual advice from a doctor may reduce with further experience.
Orthoptic-led services are effective in managing paediatric ophthalmological conditions. Prescribing limitations mean patients that could be managed independently require medical input for prescriptions. Patient group directions (PGDs) may reduce this requirement but the need for non-medical prescribing rights for orthoptists to improve service efficiency is highlighted.

ID-125946
De-Skilling and Dumbing Down - An Orthoptist Fights Back
Tess Garretty
Leeds Teaching Hospitals NHS Trust, UK

One of the discussions at last year's BIPOSA meeting was whether investigations such as Hess Charts, uniocular fields of fixation and synoptophore measurements were still relevant to today's Strabismologist. The room was divided.
Orthoptic students report that they are infrequently exposed to these investigations in many departments and as a result they lack the ability to perform them even as final year students and then as newly qualified orthoptists. Many orthoptists are becoming de-skilled and often now provide more basic investigations than previously deemed appropriate. As a profession, orthoptists are in danger of working simply as technicians rather than contributing usefully to the Strabismology team. This leads to apathy and a general disinterest in the core work of an orthoptist resulting in orthoptists seeking to work in other areas such as glaucoma and medical retina. A highly skilled orthoptist is becoming a rare beast and without that investigative mindset, research and innovation will not happen.
I will try to illustrate the usefulness of these additional investigations by presenting case reports where a diagnosis, which would otherwise have been missed, was either made or amended on the back of these results. I will seek to demonstrate instances where some investigations are appropriate and others not in certain conditions, which can lead to misunderstanding the severity of a condition. On the back of these investigations, the Orthoptist can inform the Ophthalmologist not only of the physicality of a patient's condition, but the practical effect that condition is having on that person's daily living and wellbeing.

ID-130111
Collecting patient reported outcomes in strabismus surgery – lessons from ten years' worth of questionnaires
Debbie Mullinger, Jamie Mistry, Rahul Makam, Sam Newlands, Nimesha Alex, Tony Vivian, Brinda Muthusamy, John Somner
Cambridge University Hospitals NHS Foundation Trust, Cambridge UK

Health outcomes measured from the patient's perspective are the critical element in judging the success or failure of a medical intervention. Core outcomes for strabismus have been defined and include several domains including health related quality of life. We aimed to use the Adult Strabismus quality of life questionnaire (AS-20) on every surgical patient to provide a more holistic assessment of indications for and outcomes

of strabismus surgery.
10 years of using the AS-20 in the adult strabismus clinic at Addenbrooke's were analysed. Questionnaires were completed before and 3 months after surgery.
569 cases were eligible. Return rates for preoperative questionnaires improved significantly over the first 5 years of use but post-op returns did not. Using paper questionnaires filled out in clinic return rates were 73% and 49% pre and post-op respectively. AS-20 scores increased significantly post-op both for horizontal and vertical strabismus. After implementation of an electronic form, accessed via QR code and filled in on the patient's mobile device return rates fell to 64% and 18% pre and post-op respectively.
Collecting data on health related quality of life in routine clinical practice is possible but difficult. The insights into a patient's condition aid decision making, patient involvement and assessment of treatment efficacy. Changing to an easier method of data collection and analysis does not by itself improve questionnaire return rates.
Collecting patient reported outcomes effectively requires clinical leadership, teamwork, ongoing support and monitoring.

Friday 03rd October 2025
12.00 pm – 12.45 pm – "Controversies" free papers

ID-125935
Analysis of Intravitreal Bevacizumab injections for Retinopathy of Prematurity: Long term outcomes following a paradigm shift in treatment
Nisheeta Patnaik , Joe Abbott, Sam Gurney, Sally Painter
Birmingham Women's and Children's NHS Foundation Trust, Birmingham, UK

Retinopathy of prematurity (ROP) is driven by pathological levels of vascular endothelial growth factor (VEGF). Our practice shifted to anti-VEGF injections for babies with aggressive or posterior disease around the time this study opened, in common with many units.
All neonates receiving intravitreal bevacizumab as first line treatment for ROP at Birmingham Women's and Children's Hospital were reviewed retrospectively. We present long-term outcomes: complications, treatment failure, reactivation and laser for persistent avascular retina (PAR).
44 babies (88 eyes) received injections without complication. 36 received laser as primary treatment out of a total of 1228 screened between 2017-2024. Median GA was 24.9 weeks, with median BW of 660 grams. Median GA at injection was 35.9 weeks. 42% of babies were treated for posterior zone 2 stage 3 with plus; 23% for aggressive ROP. One eye had injection failure (no response), 12 eyes (15%) reactivated at median GA of 47.1 weeks and recieved laser. 4 babies (12%) were treated for PAR (age 77-147 weeks). 34 babies (77%) did not require any further intervention.
Bevacizumab injections are largely enduringly successful; 77% required no further intervention. Reactivation occurred around 11 weeks post-injection (range 5.1-16.2 weeks), enabling babies to mature prior to laser/ventilation. Babies treated for PAR early in the study period were treated at a younger age. We now treat PAR later; this is an area for future studies.
Bevacizumab is reported to have a longer half-life with lower rates and later reactivation than alternatives. Our outcomes largely support this.

ID-130058
Botulinum toxin injection in paediatric esotropia: does it work, does it last and does the aetiology matter?
Elisabeth De Smit, Hussein Ibrahim, Amrita Saravanan, Lucy Barker, Alastair Kennedy
Moorfields Eye Hospital, London, United Kingdom

Botulinum Toxin-A injection (BTXA) is used as an adjunct or alternative to surgery for children with strabismus with inconclusive results. We present the long-term outcomes (>6 months) of a series of patients who received BTXA as primary treatment for various esotropia.
Retrospective study of children undergoing medial rectus BTXA between April 2023-April 2024 with analysis of long-term effects (>6months). Patients were categorised by aetiology: Group 1 = Acute non-accommodative esotropia (ANAET) n=2, Group 2 = infantile esotropia (IET) n=7, Group 3 = other diagnosis, n=24.
33 of 53 children completed long-term follow-up. The mean deviation was reduced from 49.5^ BO to 19^ in Group 1, from 44^ to 22^ in Group 2 and from 34^ BO to 19 ^ BO in Group 3. 26% had long-term reduction in their deviation.
In the long-term 26% of patients maintained orthophoria (<10PD), with overall restoration of stereoacuity in 45.5% of the cohort. 85% had residual phoria or tropia with 72.8% of parents satisfied with their long-term outcome. 6.1% required further toxin treatment, and 30.8% proceeded to have surgery. Temporary side effects included Ptosis rate (26.4%) with 37.5% obstructing the visual axis and Consecutive exotropia (33.9%).
Toxin provides effective treatment in the short to medium term for childhood esotropia. It has minimal side effects, improves stereoacuity, and may reduce the need for surgery across a variety of diagnoses.

ID-130121
Efficacy of Botulinum Toxin Injections in Primary Decompensating Strabismus in Children: A Retrospective Cohort Study
Chi Kit Yan, Vinod Sharma
Manchester Royal Eye Hospital, UK

Botulinum toxin A (BTX) offers a minimally invasive alternative to traditional surgical approaches in managing paediatric decompensating strabismus. This study evaluates its efficacy as a first-line treatment for esotropia, exotropia, and esophoria.
This retrospective cohort study included 15 paediatric patients treated at Manchester Royal Eye Hospital between 2019 and 2024. Inclusion criteria were patients under 18 years with primary decompensating strabismus managed initially with BTX. Outcomes assessed included clinical alignment, symptom resolution, need for further intervention, and complications. Statistical analysis used the Mann-Whitney U test.
The mean age at treatment was 8.9 years, with a near-equal gender distribution. The most common diagnosis was esotropia (n=8), followed by esophoria (n=4) and exotropia (n=3). The overall success rate was 86.7%, with complete or presumed success highest in esophoria (100%) and esotropia (87.5%). BTX was well-tolerated, with no significant complications. Sixty percent of patients required further intervention.
BTX demonstrated favourable outcomes in managing paediatric decompensating strabismus, especially esodeviations. Although long-term success may require

additional treatment, its safety and minimally invasive profile make it an effective bridging or primary therapy.
Botulinum toxin A is a safe, effective, and repeatable intervention in select paediatric strabismus cases. It may delay or reduce the need for surgery, particularly in esotropia and phoric deviations. Prospective studies are recommended to refine treatment protocols and patient selection.

ID-130250
Evaluation of the botulinum toxin service and correlation of QOL to treat adult strabismus in Moorfields Eye Hospital, London
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Moorfields Eye Hospital provides the highest volume Botulinum Toxin (BTX) clinic service to treat adult strabismus in the UK. We evaluated the service in terms of demographics and clinical need, including Quality of Life (QoL).
Prospective observational study of 6 consecutive BTX clinics in 2025. All patients completed an Adult Strabismus questionnaire (AS-20). Data collected included: demographics, indication for BTX, aetiology, strabismus size and number and interval of previous injections.
83 patients attended, 2 were excluded (lack of notes, incorrect clinic booking). Median age was 52 years, 61.7% were female. Mean visual acuity of injected eye was 0.46 (Range -0.08 to NPL). Mean of 13.5 patients attended each clinic; 12.4% were new cases. 71.6% of all patients underwent a toxin injection. Mean number of prior injections was 7 (range 0-44). Mean of 53 weeks following their previous injection.
Reasons for BTX were: diplopia in 45 (55.6%), psychosocial in 35 (43.2%) and preoperative work-up in 1 (1.2%). Common aetiologies were: secondary exotropia (15,18.5%), residual esotropia (10, 12.4%) and consecutive exotropia (8,9.9%).
The mean overall QoL score of 55.6, psychosocial 53.8 and functional 53.7. This did not differ significantly between small/large angle squints (<20v>20 prism dioptres).
The study provides a ‘snapshot’ of the demographics and clinical need for BTX in a busy strabismus service and will allow us to develop guidelines to optimally utilise clinic slots. AS-20 scores correlate well with other published reports, but not with size of the deviation. Further work may include personality testing to correlate this with QoL.

ID-130159
Response to First-Time Toxin in Adult Strabismus
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The Strabismus Toxin service at Moorfields Eye Hospital performs around 1,600 procedures annually. This retrospective review examined 90 patients who received their first BTxA injection between June and October 2023. Data collected included diagnosis, prior surgery, treatment indication, change in deviation angle (Δ), and adverse effects.
Patients had a mean age of 44 (range 15–91) and 78% were female. Sensory strabismus was the most common diagnosis (30%), and 57% had no prior strabismus surgery. 28% of patients were known to have binocular single vision. Most injections (93%) were therapeutic; and 7% were diagnostic to assess for post-operative diplopia or potential

for binocular single vision.
Follow-up occurred within 1–5 weeks for 65 patients; 23 were reviewed later, and 2 were lost to follow-up. Adverse effects occurred in 7% (ptosis or induced vertical deviation), and 8% were initially overcorrected with diplopia. A top-up injection was given to 35% of patients at the first follow-up.
Of those reviewed within 5 weeks, 55% had a change of ≤10Δ and were classified as non-responders. In patients with >10Δ change, the mean reduction was 24Δ at near and 20Δ at distance. A successful response (≥25Δ change and no top-up required) occurred in 22%.
At the time of review, 34% remained under BTxA management and 42% had undergone subsequent strabismus surgery.
This review found a higher-than-expected proportion of non-responders. There was no correlation between prior strabismus surgery and non-response to BTxA.

ID-130206
The effect of surgical dose and muscle selection on alignment in horizontal strabismus surgery
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Strabismus surgical tables prescribe the amount of surgery needed on a chosen set of muscles to correct a given deviation angle. In this retrospective study we explore the effect of varying surgical dose and muscle on alignment.
Horizontal strabismus surgeries at Addenbrooke's Hospital from 2014–2023 (n=878) were analysed. Postoperative change in deviation angle, and percentage successful operations (<10Δ deviation in primary gaze) were alignment outcomes. The effects of surgical dose and muscle choice were assessed using linear models. Preoperative deviation was a covariate.
In small-to-moderate squints (≤35Δ, n=697), single muscle, recess-resect, and bilateral recessions accounted for 18.08, 16.36, and 65.57% of surgeries respectively. Muscle selection had no effect on alignment. In bimedial recessions (p=0.6083) and single muscle surgeries (p=0.1027), surgical dose had no effect on change in alignment after controlling for preoperative deviation. In bilateral lateral recessions, larger surgical doses produced larger alignment responses (p=0.0006), but this effect diminishes as preoperative angle increases (p=0.0012).
Operating on more muscles does not produce better postoperative alignment for smaller squints. However, confounding clinical factors may have guided muscle selection. Variation in surgical dose for a given sized squint has no effect on alignment outcome in bimedial recessions or single muscle surgeries. Here, smaller surgeries may be successful regardless of squint angle. Larger doses do produce larger responses in bilateral lateral recessions, but this relationship is less substantial for bigger squints. Muscle selection and surgical dose have a modest impact on postoperative alignment. Dose-response tables should reflect the minimum surgery required for orthotropia.

ID-130237
Strabismus surgery under local anaesthesia at a tertiary eye hospital: a 5-year case review
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Strabismus surgery is traditionally performed under general anaesthesia (GA), however this is not safe or suitable for many patients. There has been increasing interest in strabismus surgery under local anaesthesia (LA), however large datasets are lacking. We identified 444 operations performed under LA at a tertiary eye centre over a 5-year period from 2020-2024. In-depth analysis of anaesthetic notes was performed for a subset of 153 LA cases and compared to 92 representative GA cases.
The most common indications for LA were co-morbidities, weekend scheduling constraints, and COVID restrictions. The widespread use of sedation permitted more complex surgery than has previously been reported with LA alone, including on oblique muscles, vertical recti and re-do surgery. Only one case out of 444 required conversion to GA due to patient anxiety, and 6 cases required top-up of LA due to breakthrough pain. LA with sedation significantly outperformed GA in several parameters including incidence of oculo-cardiac reflex (0% vs. 42.4%), post-operative opioid requirements (0.6% vs. 13.0%), post-operative anti-emetic requirements (7.2% vs 13.0%) and median hospital stay after surgery (118.5 vs. 158 minutes). The LA cohort also had a higher average age (54.3 vs. 41.8) and BMI (28.5 vs. 26.1).
Strabismus surgery under LA with sedation is a safe and well-tolerated option, including in patients at higher anaesthetic risk for GA. More widespread use may help to expand the eligible patient population, reduce intra- and post-operative complications, and optimise theatre efficiency and utilisation of resources in a day case setting.

ID-130314
Evaluation of Optic Disc Findings in Children Undergoing OCT Disc Scans for Suspected Papilloedema in a Tertiary Centre
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To evaluate the indications and outcomes of optical coherence tomography (OCT) scans in children referred for suspected papilloedema at a tertiary centre. And to assess the appropriateness of referrals from primary care providers.
A retrospective review was conducted on all paediatric patients (<16 years) who underwent OCT scans between January 1 and December 31, 2023. Data were analysed to determine referral reasons, OCT findings, and the distinction between true optic disc oedema and pseudo-disc oedema/normal optic nerves. Clinical presentations were compared between these groups.
Among 296 children, only 18 (6.1%) had true optic disc oedema, either newly diagnosed or under monitoring. In contrast, most (n=190, 64.2%) were referred by GPs or opticians to rule out papilloedema but were found to have pseudo-papilloedema or normal optic nerves. The remaining patients underwent OCT for monitoring conditions affecting the optic nerve, such as JIA, uveitis, and craniosynostosis. All 18 true optic disc oedema cases were symptomatic, presenting with headaches, vision loss, or diplopia. In contrast, most referrals that were found to not have true swelling were asymptomatic and based on fundoscopic findings, without risk factors for true optic disc oedema.

Most OCT-scans for suspected papilloedema showed pseudo-papilloedema/normal discs. We recommend that asymptomatic patients with fundoscopic changes undergo a three-month monitoring period before referral, provided no symptoms develop. This would enable more effective risk stratification, ensuring urgent cases are prioritised and seen more promptly. Overall, this could reduce unnecessary referrals, optimise resources, and prioritise high-risk cases.

ID-130335

Nonsurgical Consecutive Exotropia Following Childhood Esotropia: A Multicentered Study

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Nonsurgical consecutive exotropia (NCX) occurs when an esotropia (ET) spontaneously converts to exotropia (XT) without surgical intervention. Although NCX is considered to occur in early-onset accommodative ET with high hyperopia, consensus on causation is lacking. We report the clinical characteristics of NCX and assess the response to conservative management.

Retrospective, multicenter, observational case series, including patients aged 6 months and older with an initial diagnosis of ET who converted to XT without surgical intervention. Sensory strabismus was excluded. Age, visual acuity, cycloplegic refraction, glasses prescriptions, deviation, and binocular vision were collected.

Forty-nine children were included with a mean age of 3.5 ± 1.6 years and 8.4 ± 3.6 years at the time of ET and NCX, respectively. Mean refractive error was +4.40 ± 2.13 diopters (D) and +4.05 ± 2.74 D at the time of ET and NCX, respectively. Accommodative ET occurred in 60% of cases, and only 35.7% were high hyperopes. All but 1 patient presented with XT at distance. In response to the XT, a mean decrease in hyperopic prescription of 1.55 ± 0.48 D was given (N = 17); only 1 case reverted to ET. Eventually, 43% underwent XT surgery, with similar rates between those who had refractive management and those who did not.

NCX occurs in both accommodative and nonaccommodative ET; high hyperopia is present in only one-third of cases. On average, drift to XT occurs within 5 years. Refractive management has a modest result. No predictive risk factors were identified. Our findings challenge hyperopia-linked theories of causation. Nonrefractive explanations, such as the role of the vergence system, deserve further study.

Screen one

Audit, Clinical Services, Service Delivery and Quality of Care

ID-125937

Audit of compliance with IIH consensus statement for investigation of IIH at first presentation

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The idiopathic intracranial hypertension (IIH) consensus guidelines were introduced as Trust policy in 2021. This is the first audit into compliance with these guidelines regarding investigation of suspected IIH. A 12-month period of virtual IIH clinics was sampled, and electronic notes for 111 patients were reviewed from initial presentation regarding ophthalmology and neurology assessment, neuroimaging and lumbar puncture.

Overall compliance was low; 50% ophthalmology assessments lacked comment or grading of the disc swelling, as well 37% lacking comments regarding visual fields. Compliance with neuroimaging timing was poor, with only 15% receiving neuroimaging within 2 weeks. Rates of with lumbar puncture and neurology referral was better, but over 75% of patients with threatened vision did not receive an urgent lumbar puncture. The lack of compliance is multi-factorial, including changes in staffing, access to timely neuroimaging and awareness of guidelines. IIH is a diagnosis of exclusion and thorough assessment is required to prevent irreversible sight loss and rule out other pathology such as space-occupying lesions. An action plan was devised with neurology and ophthalmology to review the existing guidelines and to disseminate guidance to clinical teams in ophthalmology, neurology, accident and emergency and medical assessment units. Further teaching was also provided regarding investigation of optic disc swelling and IIH.

This audit highlights the standard of care for investigating suspected IIH is still low. Improved multi-disciplinary communication to disseminate guidelines and provide training may assist in improving compliance, and re-audit will be required to monitor for improvement to the service being provided

ID-125942

Comparison of transition practices within ophthalmology in the UK and Europe

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Transition programmes for children and young people (CYP) with developmental and chronic conditions moving from paediatric to adult eyecare services improve clinical outcomes and readiness in adolescents, yet implementation varies widely. This study aimed to compare transition practices and barriers in the UK and Europe.

Paediatric ophthalmologists in the UK and Europe completed an electronic survey. Responses were analysed to evaluate transition practices, factors influencing transition decisions and challenges faced.

We received 81 responses (UK:45, Europe:36), predominantly from hospital-based ophthalmologists. Structured transition programmes for typically developing CYP are in 19% of departments in Europe and 20% in the UK, and for those with additional needs in 33% vs 13% of services. The most common age at transition to adult services is 16 years in Europe and 18 in the UK for typically developing CYP, and 18 for those with

complex needs in both Europe and UK.
Both regions prioritise developmental level (UK 80%, Europe 67%), disease stability (64%, 56%), and young person's readiness (73%, 42%) as critical factors influencing decisions about transition. The UK may have greater multidisciplinary team involvement and communication with the GP (50% vs 19%). Common barriers to setting up transition programmes include 'lack of resources/ time/ funding' (64%, 64%), 'lack of standardised approach' (71%, 53%) and 'lack of organisation/ co-ordination' (69%, 42%).
Despite differences in transition timing, implementation and multidisciplinary involvement, tackling common challenges in resourcing, standardisation and coordination could facilitate the adoption of transition programmes to support CYP with taking responsibility for their healthcare.

ID-130031
Sociodemographic and Clinical Quality-of-Life Predictors Following Adult Strabismus Surgery: An Observational Cohort Using AS-20—Are Patients Scoring What Truly Matters?
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[1] Sheffield University, UK, [2] Sheffield Teaching Hospitals NHS Foundation Trust, UK
The Adult-Strabismus-20 (AS-20) questionnaire is a validated tool to assess health-related quality-of-life, helpful to incorporate into strabismus-surgical care-pathway.
Pre/postoperative AS-20 scores extracted from a single surgeon's logbook, 2014-2025. 174 consecutive datasets (23 excluded with incomplete datasets, 45% male) were analysed. AS-20 significantly improved postoperatively (psychosocial median 52.25/100 to 90/100, functional 50/100 to 82.5/100, $p<0.00001$). Redo-surgery had worse preoperative (median 37.5/100 vs 62.5/100, $p=0.00452$) and postoperative (median 80/100 vs 95/100, $p=0.01352$) psychosocial scores, compared to first-time surgeries. Diplopia was associated with lower preoperative functional scores (mean 47.20 vs 53.66, $p=0.05644$), and higher psychosocial scores both preoperatively (median 65/100 vs 37.5/100, $p<0.00001$) and postoperatively (median 83.75/100 vs 80.6/100, $p=0.04236$), compared to nondiplopic patients. Lower socio-economic deprivation indices correlated with lower preoperative psychosocial scores ($r=0.22$, $p=0.00568$), and bigger improvement ($r=-0.24$, $p=0.00306$) post-operatively. Larger preoperative deviation-angles correlated with worse psychosocial scores ($r=-0.42$, $p<0.00001$). Greater deviation-angle correction correlated with greater improvement ($r=0.30$, $p=0.00015$). Postoperative final deviation-angle did not influence final-AS-20 (psychosocial $p=0.45083$, functional $p=0.30713$). Females had lower preoperative (mean 45.83/100 vs 55.67/100) and postoperative (median 80/100 vs 95/100) scores. Younger patients had worse preoperative psychosocial scores ($r=0.25$, $p=0.00210$), but experienced greater improvement ($r=-0.27$, $p=0.00081$). Older patients had better postoperative functional scores ($r=-0.15522$, $p=0.05703$). Functional scores were not impacted by redo-surgery, deviation-angle or deprivation indices (p-range 0.10960-0.99200).
AS-20 remains a valuable tool for capturing patient-centred outcomes, useful for strabismologists to consider and be mindful in managing patient expectations.
Ocular-realignment surgery improves quality-of-life. Sociodemographic, redo-surgery, deviation-angle, gender and age can influence patients' subjective self-reported health-related quality-of-life.

ID-130039
A clinical audit of virtual paediatric ophthalmology clinics at prince Charles eye unit Windsor
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Royal Berkshire Hospital Foundation Trust, and Prince Charles eye unit Windsor, UK

The objective was to evaluate the results and outcome from virtual paediatric ophthalmology clinics with particular emphasis on suspected disc swelling referrals. Inclusion criteria was all Optometrist referral for incidental disc or retina finding on routine review with good corrected VA who were otherwise asymptomatic or minimally symptomatic.
Data was collected for clinics from 01/05/2023 to 31/08/2024 (16 months). 163 patients were booked in total and 129 actually attended. Out of them 68 were female (53%) and 61 were male (51%). Age range was 4-18 years (mean=11.5).
Looking at reason for referral we found that majority were for suspicious discs 77/129= 60% followed by referrals for choroidal nevus, retinal pigmentation and macular abnormalities.
Final diagnosis after virtual review showed 30.33% normal discs, disc drusens 14.6%, chorioretinal scars 6.2%, congenital discs anomalies 30% and retinal abnormalities 19%.
101/129 (78%) patients were discharged after first visit to virtual clinic while 28/129=22% needed in pediatric ophthalmology clinic.
Our results showed that virtual clinic are safe and effective way of reducing workload in paediatric ophthalmology. It helped to reduce RTT from 18 months to 4 months. A large majority (>90%) of suspected disc swelling referrals from community optometrists were false positive with not a single case of papilledema identified.
In future there is scope to include anterior segment pathologies (VKC, keratoconus, corneal dystrophies etc) and posterior segment pathologies (hereditary fundus dystrophies, neuro ophthalmology disease). Training of AHP (optometrists/ orthoptists) and other senior doctors is highly recommended.

ID-130046
An Audit of the Management of Idiopathic Intracranial Hypertension
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This audit aimed to determine whether the management of idiopathic intracranial hypertension (IIH) at Cambridge University Hospitals NHS Foundation Trust (CUH) adhered to the national consensus guidelines (Mollan et al 2018).
Case notes for patients allocated a diagnosis of IIH (ICD code G93.2) in 2022 were audited against 17 quality standards derived from the national consensus guidelines. The target adherence for each standard was 100%.
Twenty-one patients were included; all were female, aged 15 to 56. One hundred per cent of patients had a lumbar puncture and no patients were appropriate for neurosurgical referral. For the remaining 15 standards, target adherence of 100% was not met. Standards with the lowest adherence included recognition of rare disease burden (19%), consideration of sleep apnoea (19%), discussion regarding medication overuse headache (38%), ophthalmological follow-up timeframe (42.8%) and warning regarding teratogenetic risk of medication (47.6%).

As a result of this audit, an IIH oversight committee has been set up at CUH to review IIH care and pathways and to provide documentation templates for encounters with IIH patients for neurologists and ophthalmologists including reminder prompts regarding the consensus guidelines.
It has been 7 years since the publication of the consensus guidelines. An up-to-date national consensus on hospital quality standards for IIH is required. Furthermore, a national audit would determine whether there is variation in the quality of IIH care across the country and would likely result in improved care and outcomes for people living with IIH.

ID-130120
Efficacy of Assessment of Higher Visual Function Deficits (HVFDs) with a digital HVFQuestion Inventory(HVFQI) in a Tertiary CVI Service
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Research over the last decade has emphasized the utility of semi-structured Higher Visual Function Question Inventories (HVFQIs) in identifying Higher Visual Function Deficits (HVFDs), which are nearly universal in children with Cerebral Visual Impairment (CVI). Despite their diagnostic and habilitative value, routine clinical use has been limited by reliance on paper-based formats, in-person administration, transcription errors, and the absence of integrated scoring, lack of validated inventories with normative data.
To address these limitations, we implemented a digital version of the validated HVFQI-51, with normative data for 4–18-year-old children with CVI, within a tertiary CVI service. Parents of children with a confirmed or suspected diagnosis of CVI received a secure self-administered link with clear instructions. Responses were recorded using a 5-point Likert scale (Never to Always), with a “Not Applicable” option. Completed forms were electronically returned and integrated into each child’s medical record for review during a scheduled CVI Telephone Clinic or in-person consultation with a clinician.
We present audit data from 39 children (mean age: 8.83 years; SD: 3.75). Average return time was 3.67 days (SD: 7.54); 14 forms were returned the same day. All families received individualized reports with intervention strategies based on responses rated Sometimes, Often, or Always. Two quantitative metrics—Spectrum Index (SI: mean 0.64, SD: 0.23) and Severity Score (SS: mean 3.76, SD: 0.35)—were significantly higher than neurotypical controls ($n=127$; $p < 0.001$).
The digital HVFQI-51 enables efficient, parent-friendly administration, robust scoring, and actionable insight for clinical decision-making. A Top-11 screener derived from a larger cohort is now embedded within the digital tool.

ID-130144
Management and outcomes of Paediatric Blepharokeratoconjunctivitis in a Tertiary care centre
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Paediatric Blepharokeratoconjunctivitis (pBKC) is a condition characterised by lid margin inflammation and secondary ocular surface disease. Various topical and systemic antibiotics, topical and systemic anti-inflammatory medications, lid cleaning techniques and dietary supplementation are used in its treatment.
This is a retrospective review of patients with pBKC presenting to Moorfields Eye Hospital from 2008 to 2024. We collected data on patient demographics, clinical presentation and treatments used.
We reviewed the records of 493 patients. Of those meeting eligibility criteria, 50% were male. 65% declared their Ethnicity and 20% were Asian, 16% White, 6% Mixed, 1% Black and 21% Other ethnic group. Mean LogMAR vision at presentation was 0.2 (min -0.1, max 1.8) and at last follow-up was 0.1 (min -0.1, max 1.6). 70% had corneal involvement at presentation, improving to 55% at last follow-up. The most common treatment was topical steroid (92%). Topical antibiotics were used in 80% of cases. 73% of children had systemic antibiotics and 63% received lubricants. Cyclosporine was used in 50% of cases but Tacrolimus only rarely (3%). Lid hygiene was prescribed in 82%. Omega 3 was recommended in 15% of cases.
Epithelial involvement was more responsive to treatment than corneal vascularization. The incidence of cPBK presenting to our institution has increased over time, as it has in other parts of the world. There use of Ciclosporin has also increased with time and it is prescribed by general paediatric ophthalmologists as well as in specialist corneal clinics

ID-130147
Navigating the referral maze: patient insights into Thyroid Eye Disease (TED) pathways in the UK
Catherine Jukes, Anne Bjerre, Charlotte Codina
University of Sheffield, UK

This study aimed to explore the perspectives of TED patients regarding the referral pathway and their experiences within secondary care.
An anonymous online survey, featuring a consent section and 19 questions, was distributed through two TED charity Facebook groups during May and August 2023. Participants were eligible if they had a confirmed diagnosis of TED and were residing in the UK.
The survey was completed by 144 adults, 129 of whom met the inclusion criteria. Symptomatic individuals most commonly first consulted their GP (42%), optometrist (25%), or endocrinologist (25%). This resulted in an ophthalmology referral for 90% of those visiting an endocrinologist, 42% visiting an GP, and 36% visiting an optometrist. Respondents commonly reported being given the wrong diagnosis by their GP (37%), or optometrist (45%). The most common complaints were proptosis (66%), sore eyes (64%), and diplopia (63%). Forty percent of respondents were seen in ophthalmology within 3 months, 66% within 6 months, and 88% within a year (median time 4-6 months). For 71%, symptoms worsened while trying to secure a referral, and 61% volunteered that their confidence had been affected. Thirty-one percent attended

specialist TED clinics, which were rated more highly than orthoptic and ophthalmology or ophthalmologist only clinics (p=0.025).
Respondents' referral journeys differed considerably. Multiple consultations in primary care were often required before a referral was made, highlighting deficiencies in identification of TED within primary care and unclear referral pathways. The survey revealed opportunities for improvement in TED understanding, detection, clearer referral pathways, and optimised management

ID-130219
What outcomes are reported in research about interventions for Cerebral Visual Impairment Plus Profound and Multiple Learning Disabilities? A Systematic Scoping Review
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One in six children attending special school have a subtype of CVI, termed CVI+ (cerebral visual impairment plus profound and multiple learning disabilities). Evidence for interventions for CVI+ is limited and could be improved by using a standardised list of outcomes called a core outcome set (COS) that should be measured in any study testing interventions for CVI+.
PRISMA-SCr and COMET guidance were used to carry out a review of the literature to determine what outcomes are reported in interventional studies about CVI+. Ten databases were searched, and citations screened by two researchers using selection criteria. Articles were uploaded to NVivo software, outcomes extracted verbatim, then mapped using the COMET taxonomy and F-words framework (Friends, Family, Fun, Fitness, Function, Future).
7025 articles were eligible for title and abstract screening. 129 articles were reviewed independently by two researchers and 40 full text articles included. From 40 articles, 233 individual outcome descriptions were extracted. Most of the outcomes were mapped under 'eye outcomes' using the COMET taxonomy, e.g. visual acuity, visual attention, and signify a change in 'function' according to the F-words framework. Only two outcomes related to quality of life.
Most outcomes were of clinical origin, testing traditional elements of visual function that may be challenging for CVI+ children and overlook the impact on the whole child. Formal agreement is lacking on what outcomes should be measured in this group. Next steps are to undertake a consensus exercise to develop the main list of outcomes that are most important to stakeholders.

ID-130248
Accessibility of the Hospital Environment for Patients with Visual Impairment
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Currently 340,000 people in the UK are registered as severely (SSI)/partially sighted (PSI; ONS, 2015). In this study, we aimed to investigate clinic accessibility, visual aid satisfaction, and clinic availability in these patients.
Semi-structured interviews of 30 patients (Mean age- 73.90 ± 13.69; female-53%, male-47%) were conducted using a questionnaire. Patients were asked about access

difficulties in various parts of the hospital (point-scale and open-ended). Interviews took place in East Sussex NHS Trust ('General design guidance for healthcare buildings UK' 2014).
66.67% were registered as PSI, 33.33%-as SSI. Mean scores for difficulty finding the hospital, navigating inside the hospital, and finding eye clinic were 1.5±0.78, 2.00±0.80 and 1.75±0.82, respectively (1- never; 2- sometimes; 3- constantly have difficulties). Scores in patients with SSI were significantly higher in finding eye clinic (2.00±1.00 vs 1.45±0.52, p=0.024). 44% of participants who scored 1 or 2 stated that they were brought to appointments by hospital transport/ friends/ relatives to avoid difficulties (false low score). In verbal comments, patients mentioned illegibility of signs and posters, crowded waiting areas, and small front used for clinical letters.
The study demonstrated poor accessibility of both the hospital and clinics for SSI and PSI patients. Further environmental studies are required to improve patients' experience and safety.

ID-130307
An Audit of the Clinical Course and Management of Paediatric Thygeson Superficial Punctate Keratitis
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Thygeson superficial punctate keratitis (TSPK) is a chronic corneal condition with a tendency to relapse and is rarely reported in children. We describe our paediatric case experience and the subsequent clinical course.
A retrospective chart review of children diagnosed with TSPK at Manchester Royal Eye Hospital (MREH) from October 2018 to July 2024.
Thirteen children were identified; 62% were females. Mean age of presentation was 9 years (range 5-15 years). All children had stellate lesions or sub-epithelial infiltrates. 69% of children were of Caucasian ethnicity. Ten cases were bilateral and only 3 cases did not receive any steroid treatment. 92% presented a history of redness and photophobia. Viral swabs were negative for 6 cases. Two cases were treated initially as epithelial herpetic keratitis. 38% of cases were started on Ciclosporin treatment. Four out of the 5 these children required rescue steroid therapy. Three children of these have since maintained a period of remission on ciclosporin alone.
Given the rarity of the disease there are limited case reports and series of Paediatric TSPK. The diagnosis of TSPK is entirely clinical, based on history, clinical findings and an excellent initial response to steroids however three of our cases did not require any steroid. Ciclosporine was added in 38% of the children. Although patients still needed topical steroid treatment while on cyclosporine, it helped in reducing the cumulative steroid dose and possibly reduce recurrences
TSPK is often misdiagnosed in children and is challenging to manage. Early consideration of Ciclosporin is important to prevent long-term dependency on topical steroids. There appears to be no link between the age of onset and the severity of the disease.

ID-130308
Combatting health inequalities in a Special Educational Needs School Ophthalmology Service
Alis Sejourne, Zishan Naeem, Ashwin Reddy
Royal London Hospital, UK

Children with disabilities are 28 times more likely to experience eye health issues compared to the general population. In Tower Hamlets, the Royal London Hospital offers a vision screening service to additional needs schools, where participation was previously hindered by a 27% non-return rate of consent forms. This project aimed to improve participation in eye checks among children with learning disabilities by addressing barriers to consent and enhancing accessibility. The service shifted from an opt-in to an opt-out consent process, provided Bengali-translated forms to address language barriers, and introduced an e-consent portal sent directly to parents. These changes led to a 33% increase in participation, with 213 pupils screened, 87 of whom had never had an eye test before. The opt-out consent process reduced administrative burden and increased access to care for children who had missed screenings due to consent issues. The use of Bengali-translated forms and the e-consent system effectively met the needs of a significant proportion of the population, where 47% of families spoke Bengali. This project demonstrates that small, targeted changes can significantly reduce health inequalities, improve healthcare access, and make services more inclusive for vulnerable populations. The approach is adaptable to other healthcare services seeking to address health disparities, showcasing how simple adjustments can lead to meaningful improvements in health outcomes for disadvantaged communities.

ID-130345
Ocular Outcomes of Paediatric Uveitis in Leeds Teaching Hospitals
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Leeds Teaching Hospitals NHS Trust, UK

The purpose of this study was to outline the clinical characteristics of children with uveitis and determine the visual outcomes and ocular complication rates in the modern era.
We identified children with uveitis who attended the regional joint uveitis clinic with a paediatric rheumatologist from January 2024 to December 2024. Data was collected at baseline and at the last clinic visit. We assessed serious complications at presentation, systemic diagnosis, visual outcomes, systemic treatment and ocular complications.
Out of 98 children, 56 had juvenile idiopathic arthritis (JIA) as a primary diagnosis, 37 had idiopathic uveitis.
Most JIA uveitis patients were asymptomatic, whereas most idiopathic and posterior uveitis patients had symptoms. All children aged over 10 were symptomatic at presentation.
26/98 (26.5%) had complications at presentation. Posterior synechiae and cataracts were the most common complications.
Methotrexate was the first-line treatment for most children. Most children went on to use second/ third-line treatments. Biologics were used in 87 children.
At the last visit 22 children had active uveitis and 19 developed severe complications. Cataract, glaucoma and cystoid macular oedema were the most common complications. Severe sight loss occurred in four eyes. Only three children had systemic medications

stopped and one child had recurrence and systemic immunosuppression was restarted. A large proportion of children had complications at presentation. We managed to control uveitis in 76 children. 19 children had sight threatening complications. Biologics are now the main stay of treatment for paediatric uveitis. Very few children managed to stop their systemic immunosuppression.

ID-130347
Audit: Management of Paediatric Endophthalmitis
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Paediatric endophthalmitis is a rare but sight-threatening intraocular infection. Diagnostic challenges, delays in treatment, and the need for specialist input complicate management. Our previous study identified glaucoma surgery as a major risk factor, with significant variability in treatment approaches. This reaudit assesses adherence to established Moorfields Eye Hospital (MEH) paediatric endophthalmitis guidelines and evaluates outcomes.
A retrospective review of paediatric endophthalmitis cases (<16 years) from January 2017 to January 2025 was conducted at MEH and Great Ormond Street Hospital (GOSH). Data collected included visual acuities, microbiological results, and treatment details. Audit targets, based on MEH guidelines, included door-to-needle time <120 minutes (80% target), correct intravitreal therapy (100%), and systemic antibiotic use (100%). Nine cases were identified (8 MEH, 1 GOSH). Glaucoma-related procedures accounted for 67%. 33% may have met the <120-minute door-to-needle time target. Intravitreal therapy adherence followed adult guidelines hence adherence was 18%, no patients received the correct combination of systemic antibiotics. Microbiological findings showed Gram-positive bacteria in 44%, Gram-negative in 11%, and culture-negative in 45%. Visual outcomes improved compared to the previous cohort, with 44% achieving 6/6–6/18, but severe impairment (PL/NPL) persisted in 33%.
Delays in treatment were exacerbated by the need for coordination between paediatric ophthalmologists and anaesthetic teams. Poor adherence to guidelines but with improved visual outcomes highlights the need for a review of the guidance, an electronic checklist and training.
Further standardization and streamlined referral pathways are essential to optimizing paediatric endophthalmitis management highlighting for a population-based study.

ID-130358
Co-designing studies to evaluate the implementation of automation and Artificial Intelligence (A.I.) in childhood uveitis screening: a patient involvement project
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Children with Juvenile Idiopathic Arthritis (JIA) require regular Slit Lamp Examinations to ensure prompt detection of associated uveitis. Anterior segment Optical Coherence Tomography has been proposed as an alternative. AS-OCT can be done in the community, potentially using automated analysis. Successful implementation requires an understanding of families' perceptions on the use of automation and Artificial Intelligence (A.I.) in children's eye care.

Patient and Public Involvement (PPI) methods were used to inform the development of questions and topics for a mixed-methods study exploring families' perceptions around automation and A.I. in paediatric healthcare. Families and children, with or at risk of childhood uveitis, participated in a focus group on barriers and facilitators of patient adoption of AS-OCT, automation and A.I.

The PPI group comprised one teenager and four parents. Concerns were raised around communicating results and delays in seeing a clinician following community based AS-OCT. For automated analyses, concerns were raised about data protection and information delivery. Participants suggested that specific uses of A.I. e.g. chat-bot information platforms, would be welcomed.

The results have informed the development of a mixed-methods study within a currently underway randomised trial of AS-OCT uveitis screening. PPI can enhance the quality and translation of research findings as interest in automation and A.I. increases. Involving families and children in research design provides unique insights into family's perspectives and prompts novel ideas.

PPI ensures that research is designed with patients, and not just done to them, ensuring that the patient perspective is heard and addressed.

Screen two

Case reports, rare disorders, paediatric visual pathways

ID-130151

Ophthalmic Manifestations of Non-Syndromic Craniosynostosis: Role for targeted assessment

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Children diagnosed with craniosynostosis routinely require Ophthalmological review and follow-up due to known occurrence of strabismus, refractive error, reduced visual acuity (VA) and risk of optic disc swelling. We wanted to determine whether particular ophthalmic manifestations were associated with particular synostoses and compare our data to published data.
Children with non-syndromic craniosynostosis, who attended Alder Hey Children's Hospital between 2017 and 2021, were identified through the locally held database. Using the electronic patient records (MediSight) and electronic letters, only those who attended the Ophthalmology department were included. Along with demographics, data on strabismus, refractive error, visual acuity (VA) and optic disc assessment were collected. Data analysis was sub-divided into synostosis types (sagittal, unicoronal, lambdoid, metopic and multi-suture).
Ninety patients were included in the study, of whom nearly half had sagittal synostosis (47%) and a third had metopic synostosis (31%). Just over a half had ophthalmic manifestations (51%) with the commonest ones being strabismus (20%), reduced visual acuity (18%) and refractive error (18%). Interestingly 70% of those with unicoronal synostosis had ophthalmic manifestations, whilst only a third (35%) of metopic synostosis had any ophthalmic findings. Though all synostoses types were associated strabismus, refractive error and reduced VA, optic disc swelling was only reported in patients with sagittal synostosis (9%).
These findings suggest that all patients with craniosynostoses require orthoptic and optometric support, those with sagittal synostosis do require further support in the form of fundal examination and/or retinal imaging.

ID-125922

Congenital Cyclic Oculomotor Palsy and Spasms: A Systematic Review of the Global Literature and Presentation of Two New Cases

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Cyclic oculomotor palsy and spasms (COPS) is a neurological disorder characterised by alternating phases of paresis and spasm of the oculomotor nerve. Due to its rarity, knowledge of its aetiology, management and prognosis is limited to sporadic case reports. The diagnosis of congenital COPS is based on clinical presentation; nevertheless, many children undergo extensive investigation. Furthermore, cyclic ptosis and exotropia can be cosmetically unacceptable and are risk factors for amblyopia, but

their appropriate management is not known.
This systematic review is the first to bring together all published cases of congenital COPS from across the World, with no limits to publication date or language. Historical papers were re-examined and translated when necessary. Additionally, two new cases are described.
Based on evidence from this review, we identify the defining features of COPS and make a distinction between primary (congenital) and secondary (acquired) cases. We suggest a link between COPS and other ephaptic disorders, such as ocular neuromyotonia (ONM). We find that surgical outcomes in the management of COPS are variable due to its cyclic nature and suggest that carbamazepine, used in the treatment of ONM and found to abolish the cycling of one case of COPS, may be an effective medical treatment that warrants further research.
Greater recognition of COPS is essential to diagnosis and may help to prevent unnecessary investigations and amblyopia in affected patients. We recommend COPS is used as the standard nomenclature for the condition and describe its defining features, natural history and possible management options.

ID-125949
Diagnostic Accuracy and Aetiological Landscape of Third Cranial Nerve Palsy in Children
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Third cranial nerve (CNIII) palsy in children has various aetiologies, including congenital, traumatic, and acquired. Diagnosis and management varies according to age, characteristics of presentation, and associated signs and symptoms. The aim of this audit was to review children (<16years) diagnosed or referred with CNIII palsy, assess diagnostic accuracy, and evaluate treatment strategies.
A retrospective audit was conducted at Moorfields Eye Hospital NHS Foundation Trust. Magic XP tool was used to identify children (<16years) referred with suspected CNIII palsy between 01/09/2009 and 31/12/2023. Data on the aetiology, misdiagnosis, ptosis, pupillary involvement, and treatment strategies, were collected.
145 cases were identified. 75/145(52%) were definitively diagnosed with CNIII palsy. Misdiagnosis occurred in 69/145(48%) cases. Common misdiagnoses included ptosis and physiological anisocoria. Among the confirmed cases, 42/75(56%) were congenital and 24/75(32%) were acquired. Trauma was the commonest acquired cause (25%). Ptosis was documented in only 51% of cases, and pupillary involvement in 29%. Treatment strategies included surgery (22), patching (9), medication (4), refractive error correction (4), Botulinum toxin (1), and cosmetic contact lenses (1).
We identified significant misdiagnosis rates and inconsistencies in documentation, particularly regarding ptosis and pupillary involvement, which are both poorly documented in children. This has significant implications on diagnostic and treatment pathways. Improved consistency in documentation is crucial for early accurate diagnosis and management.
This large case series highlights the difficulties in assessing children, and the audit cycle highlighted gaps in documentation. However, to improve care in paediatric CNIII palsy, there is a need to standardize diagnostic criteria and documentation practices.

ID-130045

Acute MRI changes in paediatric patients with Leber Hereditary Optic Neuropathy

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Leber Hereditary Optic Neuropathy (LHON) is a mitochondrial genetic condition that results in painless, often sequential, severe visual loss. In children it can present insidiously and is frequently challenging to diagnose. There are limited reports of MRI findings in acute LHON, especially in children. We present two such paediatric patients.
Case 1: A 7-year-old boy with bilateral dense vision loss was diagnosed with LHON and found to be homoplasmic for m.14484T>C mitochondrial DNA mutation. MRI of the brain and orbits showed a swollen optic chiasm with central T2 hyperintensity and contiguous signal abnormalities in both optic nerves, with faint enhancement following contrast. He was treated with idebenone and central visual acuity improved in both eyes to 0.0 logMAR.
Case 2: A 15 year-old boy presented with left painless dense visual loss. His older brother was known to be homoplasmic for m.11778A>G. A MRI brain was undertaken in the acute phase and showed T2 hyperintensity, swelling and faint enhancement affecting the left optic nerve, left chiasm and left optic tract. The right eye has become affected six months later, despite taking idebenone.
Case reports/series of MRI findings in acute LHON are mostly in adults but also report T2 hyperintensity of the optic nerves, as well as chiasmal swelling, but without enhancement. There is little evidence in the literature for MRI findings in acute LHON in children.
It is important to highlight acute MRI changes in children with LHON as these can resemble inflammatory optic neuropathy and result in misdiagnosis.

ID-130139

Infliximab induced optic neuropathy mimicking glaucoma in Paediatric uveitis: a case report

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TNF-alpha related optic neuropathy is a rare entity. We present a case in which coexisting ocular disease led to late identification and a more chronic progressive course than previously reported.
An 11year old male was started on infliximab for JIA associated uveitis. He had a history of poorly controlled uveitis from age 2 having failed to achieve adequate control with adalinumab, baricitinib as well as concomitant use of either methotrexate or MMF. He had required left lensectomy at age 3 with his aphakia managed with contact lenses. Following commencement of infliximab good uveitis control was achieved.
2 years following commencement of infiximab he reported missing parts to his vision and images appearing duller. His left optic nerve was noted to have developed cupping and advanced visual field changes were also noted. IOP was measured at 27mmHg. A presumptive diagnosis of glaucomatous optic cupping was made and topical IOP lowering treatment started.

In subsequent examinations, despite IOP control being achieved there was progressive optic nerve cupping.
At 3 years following treatment he reported a sudden decline in vision from (6/12 baseline to 6/60) and pain in around his left eye. An MRI was undertaken showing evidence of optic neuritis and IV methyl prednisolone was administered with resolution of symptoms and return of visual acuity to 6/12. Cessation of infliximab has resulted in both subjective and measured improvements in visual acuity although a further recurrence of uveitis has occurred 4 months post cessation.

ID-130149
Ocular involvement in early-onset sarcoidosis in children: A case series
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Background: Early-onset sarcoidosis (EOS), including its familial variant Blau syndrome, is a rare granulomatous autoinflammatory condition characterised by arthritis, dermatitis and uveitis. Ocular involvement may be the earliest or most prominent feature and is sight-threatening yet is sparsely described in the literature. This case series, conducted as a retrospective analysis at a tertiary paediatric uveitis service, describes the ocular presentations, complications, and outcomes in EOS.
Clinical findings: All six patients presented with granulomatous uveitis: five had posterior segment involvement including choroiditis and optic disc swelling. The average age of ocular involvement onset was 7 years. Diagnosis was confirmed by elevated serum ACE alone (n=1), or combined with a lymph node biopsy (n=2), skin biopsy (n=2) or genetic confirmation of a NOD2 variant (n=1).
Management: All patients were treated with systemic immunosuppression, including a combination of methotrexate (n=6), adalimumab (n=5), mycophenolate (n=2), oral corticosteroids (n=3), and/or infliximab (n=1).
Results/Discussion: Complications included, but were not limited to, uveitic glaucoma (n=2), cataract (n=3) and chorioretinal scarring (n=1). Visual acuity improved or remained stable in most cases, with only one case of persistent visual impairment. This series highlights the heterogenous, aggressive and chronic disease course of EOS-related uveitis, with early onset, bilateral involvement and frequent complications. Early initiation of systemic immunosuppression, particularly with methotrexate and adalimumab, appeared to limit disease progression and preserve vision.
Conclusions: EOS can cause sight-threatening uveitis in children. Early diagnosis and aggressive systemic therapy are essential to prevent irreversible ocular damage and optimise visual outcomes.

ID-130203
Superior Oblique Myokymia: A Topical Solution
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Superior Oblique Myokymia (SOM) is a rare eye condition characterized by episodic oscillopsia and diplopia. The etiology remains unclear, and treatment options historically included surgery and systemic drugs. More recently, topical treatment such as Timolol have emerged as effective therapeutic option though the role of

Brinzolamide for SOM has not been described in literature.
This retrospective case series reviewed the outcomes of five SOM patients treated with topical therapies (Timolol 0.5% and Brinzolamide) at a single centre over a three-year period. Patients were assessed for symptom resolution and side effects following treatment.
Of the five patients, four were treated with off-label Timolol. Two achieved complete symptom resolution within eight weeks and remained symptom-free at 12-month follow-up. Two patients who did not respond to Timolol were transitioned to Brinzolamide and showed excellent response. One patient with asthma and bronchiectasis was treated with Brinzolamide as the primary therapy and also experienced symptom relief. No significant side effects were reported in the cohort.
Timolol 0.5% is effective as a first-line treatment for SOM, providing relief for many patients. For those unresponsive to Timolol or with contraindications, Brinzolamide offers an equally effective alternative, broadening treatment options for this rare condition.

ID-130252
Orthoptic functional presentations in young children: A case series
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The following case series reflects unusual cases presenting with concerning symptoms yet all ultimately found to be functional neurological disorder (FND).
5 yrs (F) presenting with 1 month history of esotropia diplopia, headache and episode of vasovagal syncope. Marked ET with full lateral rectus function and no refractive error. MRI clear. Planos issued for PAT however squint resolved with planos.
8 yrs (M) old presenting with 1 month history of strabismus, diplopia and episodes of "black vision". Variable esotropia noted with full abduction. MRI clear. functional diagnosis was made and psychological support initiated. Fully resolved following psychological input.
6 yrs (M) old presenting with 2-week history of strabismus, diplopia, "blue" vision and pain. Variable strabismus and acuity with full abduction. MRI clear. Diplopia persisted so treated with Botox. near reflex spasm persisted. Symptoms resolved following psychology and family bereavement support.
7 Yrs (M) old presenting with 6-week history of reduced vision, nystagmus and headaches. Ocular flutter only noted without glasses on. MRI clear. Diagnosed with FND. Symptoms significantly improved following psychology support.
Children presenting acutely with signs and symptoms indicative of optic neuritis or space occupying lesions cause concern for orthoptic/ophthalmology staff. These cases had red flag signs and therefore underwent MRI scans -all NAD. All resolved with placebo treatment and psychology support. This series reflects an unusually young group with distinct repeatable signs/symptoms. This highlights the need to consider FND in all age groups and the value of psychology pathways for ophthalmology clinics.

ID-130301
Torpedo Maculopathy: A paediatric case series with multimodal imaging
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Torpedo maculopathy is a rare and distinct retinal condition characterised by the presence of a well-defined, elliptical, and often pigmented lesion located at the macula. Although the condition is usually benign in nature, the accurate recognition is important to eliminating other differential diagnoses and to prevent unnecessary interventions. This article aims to explore the clinical presentation and diagnostic methods and features seen on multimodal imaging, more specifically including optical coherence tomography angiography (OCTA) and enhanced depth imaging (OCT-EDI) of torpedo maculopathy in a 10 patient paediatric case series. Method: Review of imaging in medical retina multidisciplinary team meeting and compare to literature. Results: Will be complete by meeting. Discussion and conclusion will include clinical significance/application regarding OCTA and EDI features seen in this case series.

ID-130305
A Case Series of Orbital Inflammation associated with Paediatric Uveitis
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Manchester Royal Eye Hospital, UK

To describe the management and challenges of 3 paediatric cases of severe panuveitis with orbital inflammation.
We present a retrospective case series of 3 children with bilateral orbital inflammation and uveitis.
Three children presented to the paediatric uveitis clinic over a 2-year period with bilateral symptoms and signs of uveitis and orbital inflammation. There were 2 males and one female aged 10, 13 and 14 years. All patients had anterior uveitis and two had optic nerve swelling at the time of presentation. Orbital signs included lid swelling, proptosis, ptosis and ophthalmoplegia. All had MRI orbital scans and one had an orbital biopsy. All 3 cases improved on systemic immunosuppression (oral steroids, methotrexate and/or adalimumab). 2 cases had recurrence of anterior uveitis.
Paediatric uveitis associated with orbital inflammation is a rare phenomenon and only solitary case reports are there in literature. Non-specific orbital inflammatory syndrome has been described to present differently in the paediatric population compared with adults and is commonly associated with a eosinophilia, however, none of our patients had so.
Orbital involvement in paediatric uveitis is rare and requires a multi-disciplinary approach in management including paediatric Rheumatology and Oculoplastics. Biopsy may be considered if there are progressive orbital findings, lack of steroid response and persistent imaging abnormalities. All 3 cases had resolution of symptoms and signs on systemic immunosuppression.

ID-130337

Onset and resolution of ocular motor cranial nerve palsies following the use of intra-arterial chemotherapy for retinoblastoma

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Intra-arterial chemotherapy (IAC) has revolutionised the treatment of retinoblastoma with respect to eye salvage; though it does carry ocular side effects. We present a case series assessing the onset and resolution of cranial nerve palsies (NP) following IAC for refractory retinoblastoma.
All eyes were initially planned to receive 3 age-adjusted doses of IAC between 2014 and 2020 (inclusive). The initial approach to catheterisation was the same in all cases. All patients were assessed by an Orthoptist and those with NP were followed up for resolution.
41 eyes were treated with IAC. 7 (17%) suffered cranial nerve palsies (NP) following a median of 3 (2-12) doses of IAC. 1 eye had isolated 6th NP, 3 eyes had isolated 3rd NP and 3 eyes had mixed 3rd and 6th NP. Onset was at a median of 5 days after the injection, and the median age of NP onset was 38 (7-64) months. Full resolution was seen in 5 eyes at a median of 3 months from onset (0.75-26). 1 eye had isolated 3rd NP which did not resolve, and the eye was enucleated. 1 eye had mixed 3rd and 6th NP which improved slightly at 7 months but will require strabismus surgery.
NP is an infrequent occurrence after IAC but families need to be aware of this as a complication. It is reassuring that the majority resolve. Persistent NP can be related to high cumulative doses of melphalan, administered in attempt to target refractory tumour control.

ID-130354

The Role of Photobiomodulation Therapy (PBMT) in Paediatric Ophthalmology: A Scoping Review

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Photobiomodulation therapy (PBMT) is a non-invasive intervention that uses specific wavelengths of light to stimulate cellular chromophores, activating biological processes with potential therapeutic applications. PBMT has been used for various childhood eye/vision conditions. This scoping review maps the current evidence on applications, efficacy, and safety.
We carried out a scoping review following PRISMA guidelines: systematic search of Ovid MEDLINE, Embase and Cochrane Libraries, staged review within Covidence software, with two independent reviewers screening titles/abstracts, then full-texts for inclusion based on predefined criteria. We included primary research studies in English language with children under 18 years with eye, vision, lid, or orbital conditions treated with PBMT, low light therapy, or intense pulsed light therapy (400–1100 nm spectral range). Case reports, meta-analyses, systematic reviews, and studies using photodynamic therapy, cross-linking, or optogenetics were excluded.
Of 5,081 identified studies, 47 were included. The majority focused on myopia control, reporting reductions in axial elongation, some noted rebound effects upon cessation.

Amblyopia, retinopathy of prematurity, meibomian gland dysfunction, chalazion, concussion, and visual fatigue were also investigated. Most studies were randomized controlled trials, with China as the predominant investigating region. PBMT demonstrated potential benefits across various conditions with a favourable safety profile.
PBMT may have a role in the management of childhood eye conditions, particularly myopia and blepharitis. It appears generally safe, with transient adverse effects such as mild photophobia and dry eye. Further research is needed to optimize protocols and assess sustained efficacy and safety for widespread clinical adoption.

ID-130055
Bilateral Bedside Amnion Application for Ocular Involvement of Mycoplasma Pneumoniae-Induced Rash and Mucositis: A Case Study
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Mycoplasma pneumoniae–Induced rash and mucositis (MIRM) is a recently classified extrapulmonary manifestation of Mycoplasma pneumonia infection, a common respiratory pathogen that is more prevalent in children and young adults. Mucocutaneous signs are present in 25% of those infected with M pneumoniae. Unlike Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TENS), MIRM preferentially affects the mucosal membranes with less cutaneous involvement.
A healthy 17-year-old girl presented to A&E with a mouth ulcer and a swollen eyelid. She was discharged with advice. Three days later she re-presented with worsening mouth ulcers, bilateral conjunctivitis, inability to swallow and reduced urine output on a background of an upper respiratory tract infection. She had had similar milder episodes in the past. Ophthalmology exam revealed pseudomembranous conjunctivitis and suggested differentials included SJS and TENS. She was seen by dermatology who diagnosed MIRM after a nasopharyngeal swab grew mycoplasma. She was treated with IV levofloxacin, 3 days of IV methylprednisolone and supportive measures. Ocular treatment included daily removal of pseudomembranes, dexamethasone 0.1% hourly and ciclosporin 0.1% BD to both eyes.
Despite this she began to develop nasal and temporal symblepharon. Two rings fashioned from IV cannula tubing coated with Cryopreserved Human Amniotic Membrane (CHAM) were inserted into the upper and lower fornices such that they covered the entire ocular surface of both eyes. They were kept in situ for 5-7 days. This intervention halted the progression of symblepharon formation and resolved ocular surface inflammation. Four weeks later her eyes remained uninflamed with normal extraocular movements.

Screen three

Surgery, surgical techniques, innovations and therapeutic development

ID-125930
A Case Series evaluating ocular misalignment following Retinal Detachment surgery. Is ASOCT any good?
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20 patients were identified, 75% males. The mean age was 57.15 (23-93) years, upto 42 years after RD procedures, although some developed symptoms within 3 months. 30% were referred from GPs (30% other sub-specialties, 25% optometrists, 15% emergency). 55% experienced diplopia +/- psychosocial concerns. Some had multiple RD surgeries, combination of scleral buckle (50%) +/- vitrectomy (45%).
Majority had incomitant misalignment, 70% horizontally and 30% vertically. 20% were discharged following failed attendance or declined treatment, 20% were successfully treated with prisms, and 55% required strabismus surgery. Pre-operative Anterior-Segment Optical-Coherence-Tomography (AS-OCT) correlated with intra-operative findings of fibrosis and slipped muscle. Surgically, 64% were located at a drop-back position, affecting 57% of lateral rectus (mean displacement of 5.6mm (4.1-8.1mm)); 29% superior rectus (6.8mm (6.3 – 7.3mm)); and 14% inferior rectus (2mm displacement).
The mean preoperative-horizontal-deviations were 36.2 PD (9-80 PD), and the vertical-misalignment was 23.3 PD (4-35PD).The mean postoperative-horizontal-angle was 8.9PD (3-16PD), and the vertical-position was 1.83 PD (1-2 PD). All patients had improvement in deviation. Those with binocularity had significant expansion of field-of-single-vision.
RD surgery carries risks of compromising AS-circulation leading to extra-ocular muscle dehiscent, with majority located posterior to the buckle-edge. ASOCT is useful in evaluating muscle(s) displacement especially after scleral-buckle. ASOCT is a non-contact imaging tool, using near-infrared (1310nm), aiding surgical planning.
AS-OCT-assisted strabismus surgery can enhance surgical planning and manage RD-patients' expectations.

ID-130117
Double Trouble: Cavernous Sinus Syndrome in Adults – A Case Series Highlighting Ophthalmic Presentations and Outcomes
Ameer Ali, Jian Chew, Janice Hoole , Devina Gogi
Leeds Teaching Hospital Trust, UK

Cavernous sinus pathology is a rare but potentially vision- and life-threatening cause of ophthalmoplegia. Presentations can mimic benign strabismus or isolated cranial nerve palsies, delaying diagnosis. We present a case series of 17 patients with confirmed cavernous sinus involvement to highlight diagnostic patterns and clinical outcomes.
Seventeen patients seen in the eye clinic at Leeds Teaching Hospitals NHS Trust between 2022 and 2024 were identified from clinical records. All had radiologically confirmed cavernous sinus pathology and presented with ocular motility disturbance. Data on presenting symptoms, cranial nerve involvement, diagnosis, treatment, and outcomes were retrospectively reviewed.
Diplopia was present in all patients (100%). Sixth nerve involvement occurred in 59% (10/17), third nerve palsy in 71% (12/17), and multiple cranial nerve involvement in 65% (11/17). Isolated single nerve palsy occurred in 35% (6/17). Aetiologies included

tumour (47%), carotid-cavernous fistula (24%), aneurysm (18%), sinusitis (6%), and one case under investigation. Two patients underwent horizontal strabismus surgery. Two experienced tumour-related visual loss. Outcomes included improvement in 53% (9/17), stability in 24% (4/17), worsening in 12% (2/17), one death, and one lost to follow-up.
Most patients had either improvement or stability in their ocular motility. However, vision loss can be permanent in some cases, underscoring the importance of early diagnosis and multidisciplinary management.

ID-130119
Effectiveness of G. Cyclosporine 0.1% in Vernal Keratoconjunctivitis (VKC) Patients
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Vernal Keratoconjunctivitis (VKC) significantly impacts paediatric patients' quality of life due to chronic allergic eye inflammation. While topical steroids offer symptomatic relief, prolonged use can lead to complications like glaucoma, cataracts, and corneal damage. This audit evaluated the effectiveness of G. Cyclosporine 0.1% in reducing steroid dependency and controlling VKC symptoms in paediatric patients at the Royal Berkshire Foundation Trust.
A retrospective analysis was conducted on 115 paediatric VKC patients (81 males, 34 females), aged 4–18 years (mean age 11), treated from 2015 onwards. Data were collected using Medisoft and electronic health records, focusing on steroid-sparing effects, corneal complications, adverse effects, and compliance.
Among 87 patients treated with Ciclosporin 0.1%, 32 (36.8%) required no rescue steroids or had gaps exceeding one year between short steroid courses. Nineteen (21.8%) remained steroid-free for over six months, indicating 58.6% achieved significant steroid reduction. Of 8 patients on long-term steroids despite Ciclosporin 0.1%, 7 developed corneal ulcers, 2 requiring debridement. Nine patients (10.34%) experienced decreased visual acuity—7 had minimal reduction to 6/7.5, and 2 to 6/9. Reported side effects were mild and transient.
Ciclosporin 0.1% proved effective in reducing steroid dependency for VKC management. However, patient adherence, prescription accessibility, and monitoring for complications like shield ulcers remain crucial to optimize outcomes.
This audit supports the use of Ciclosporin 0.1% as a valuable steroid-sparing agent in the management of VKC, with minimal adverse effects, highlighting the importance of clinical protocols and ongoing monitoring.

ID-130138
Inferior Oblique Weakening Gets Better With Time
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Evaluating the long-term outcomes of inferior oblique (IO) weakening procedures remains a key component in refining surgical strategies for managing vertical strabismus. Previous audits at our institution revealed limited follow-up beyond six months, with inconclusive differentiation between anteriorisation and recession

techniques. This study aimed to assess changes in vertical deviation over time, with particular focus on the primary position (PP) and lateral gaze measurements, and to compare the long-term efficacy of different surgical approaches.
A retrospective review was conducted on patients who underwent IO surgery between January 2021 and August 2024. Inclusion criteria required documented follow-up at 1, 3, and 6 months postoperatively. Data was collected on diagnosis, surgical technique, and angle of deviation in lateral gaze, near, and distance fixation. Subgroup analyses were performed to evaluate outcomes for patients undergoing IO anteriorisation versus recession, with combined or adjunctive procedures reported separately.
A total of 38 patients (19 male, 19 female; mean age 29.2 years, range 2–79) with 46 eligible eyes were included. Most eyes demonstrated either stable or improving vertical deviation between 3- and 6-month follow-up. Notably, improvements in mean angle for lateral gaze and distance fixation demonstrated 33% and 22.6% reductions from month 3 to 6, respectively. These findings support the hypothesis that IO weakening effects may progress over time, potentially due to neurofibrovascular bundle regeneration contributing to muscular rebalancing.
This audit focuses on improved outcomes on long-term follow-up in assessing efficacy and supports the need for further longitudinal studies

ID-130140
Investigating the Morphology, Angle, and Insertional Pattern of the Inferior Oblique: Translational Anatomy for Strabismus Surgery
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Successful surgery on the inferior oblique (IO) relies on detailed knowledge of its insertional pattern and proximity to adjacent structures. This study investigates variability in IO anatomy, develops heuristics to assist in surgical technique selection and tests the hypothesis that the two oblique muscles lie within a shared muscular plane.
Dissection of 8 paired cadaveric orbit specimens were completed to expose the IO muscle along its course. The angle of the IO was measured relative to the visual axis from both lateral and inferior views. Measurements of the angle of the superior oblique (SO) muscle tendon to the visual axis, the morphometry of the muscle, nerve and insertional pattern were also completed.
Significant differences between IO and SO angles ($p=0.0093$) disproved the null hypothesis of a common plane. Using measurements of the insertional location, diagrams were constructed to create an intuitive scale-accurate visual map to help guide strabismus surgeons. These were paired with trace diagrams to show the variability in insertion shape. The inferior temporal vortex vein was found to have a relatively constant location as a key landmark for IO muscle capture during surgery. Detailed knowledge of insertional variability and proximity to the optic nerve and ciliary arteries should improve surgeon confidence in identifying and manipulating the IO. IO angle measurements can be used to improve eye movement and surgical training models.
This paper should improve surgical outcomes by providing a detailed insertional map of

the IO, while simultaneously challenging long-held assumptions of the obliques' muscular plane.

ID-130158
Reducing the environmental impact of strabismus surgery
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University of Cambridge, UK & Cambridge University Hospitals NHS Foundation Trust, UK

Strabismus surgery is cost-effective but its impact on the environment is poorly understood. This retrospective study evaluates the effect of surgical variables and follow-ups on clinical outcomes to determine if emissions could be safely reduced. Horizontal strabismus surgeries at Addenbrooke's Hospital from 2014–2023 (n=878) were included. The effects of surgical approach (fornix or limbus), adjustable suture use, and routine post-operative follow-ups on operative duration and postoperative deviation were assessed using linear models and paired t-tests. Successful outcomes were deviations <10Δ in primary gaze.
There were no paired differences in post-operative deviation between the first (1 month) and second (3 month) follow-ups. 7.52% of patients had an unsatisfactory outcome at first follow-up but a successful outcome by the second. The reverse was true for 8.54%. No reoperations occurred between the two follow-ups, but 6.04% of patients had a later reoperation. Neither adjustable suture use, nor surgical approach, were associated with better alignment. Fornix approaches took longer than limbal by 8.734±0.008 min ($p<0.001$).
Reducing the number of routine follow-ups and choosing surgical parameters to minimise operation time could reduce the climate impact of strabismus surgery without sacrificing clinical outcomes. No significant differences exist between postoperative alignment measured at early and late follow-ups. Therefore, a solitary, late follow-up could supplant both visits. Adjustable sutures do not benefit outcome, nor impact surgical time. Fornix approaches, however, do increase surgical time without a benefit to alignment.
Common practices in strabismus surgery services warrant careful consideration of their presumed clinical value and climate cost.

ID-130218
Visual Axis Opacification Requiring Intervention Following Primary Intraocular Lens Implantation in Children Under 8: A Retrospective Cohort Study (2014–2024)
Christopher Anetekhai, Jian Chew, Vernon Long
Leeds Teaching Hospitals NHS Trust, UK

Visual axis opacification (VAO) is a recognised complication of paediatric cataract surgery. This study aimed to evaluate VAO intervention rates and the effect of primary posterior capsulotomy (PPC) in children under 8 undergoing primary intraocular lens (IOL) implantation at Leeds Teaching Hospitals NHS Trust (2014–2024).
We retrospectively reviewed 40 eyes from 30 patients (10 bilateral, 20 unilateral). Patients were grouped by age: <2 years (12 eyes), 2–5 years (20 eyes), and 6–8 years (8 eyes). Data collected included PPC status, intervention type, time to intervention, and complications.

PPC was performed in 8/12 eyes (67%) in the <2 group, 9/20 eyes (45%) in the 2–5 group, and none in the 6–8 group.
VAO intervention occurred in: 3/8 (38%) with PPC vs 3/4 (75%) without PPC in <2s. 3/9 (33%) with PPC vs 8/11 (73%) without PPC in 2–5s. 2/8 (25%) in 6–8s (no PPC) Intervention was surgical in 14 eyes (35%) and via YAG in 5 (13%). Median time to intervention increased with age: 7 months (<2), 15 months (2–5), 58 months (6–8). One patient developed glaucoma; two eyes required repeat procedures; no retinal detachments occurred.
This reinforces previous studies showing PPC reduces VAO in children under 5. Children aged 6–8 had a lower rate of VAO and longer time to onset, even without PPC. These findings support the continued use of PPC in children under 5 and suggest a reduced need for intervention in older children.

ID-130312
Does secondary intraocular lens implantation increase the risk of glaucoma in aphakic patients who underwent cataract surgery in childhood?
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Moorfields Eye Hospital, London, UK

Secondary intraocular lens (IOL) implantation is reported to increase glaucoma risk in paediatric patients. This study aimed to determine the incidence and risk factors for glaucoma onset or progression in children and young adults undergoing secondary IOL implantation.
Retrospective cohort study of secondary IOL implantation following paediatric cataract surgery at Moorfields Eye Hospital (2017-2025). Anterior chamber IOLs and retinal pathology were excluded. Primary outcome measures included intraocular pressure (IOP), optic disc (OD) appearance and escalation in glaucoma management (surgery or eyedrops).
57 eyes were included, 30 paediatric (aged 0-16) and 27 young adult (aged 17-30). Mean follow-up was 36.5 months (SD +/- 33.67). Cataract aetiology was congenital (49%), uveitic (26%) and traumatic (25%). IOL position was ciliary sulcus (68%), capsular bag (19%) and scleral-fixated (12%). 21 eyes (37%) had pre-existing glaucoma. In all patients, IOP remained normal/well-controlled post IOL implantation. 14 eyes (25%) had worsening OD appearance and 11 eyes (19%) required escalated glaucoma management (7% eyedrops, 9% surgery, 4% both). All but one of these had pre-existing glaucoma. 71% of eyes with pre-existing glaucoma had progression, compared to 3% of eyes without pre-existing glaucoma (relative risk=25.71; $p<0.001$). In patients having secondary IOL insertion there was a statistically significant increase in relative risk of glaucoma progression in patients with pre-existing glaucoma. Patients with congenital or traumatic cataract, without pre-existing glaucoma, rarely developed glaucoma post-operatively. No difference in glaucoma risk was found between age groups.
We recommend close monitoring of patients with pre-existing glaucoma after secondary IOL insertion.

ID-130318
Inferior rectus botulinum toxin injection in vertical strabismus
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Botulinum toxin type A (BTXA) injections to the extraocular muscles have been well described in the treatment of strabismus. However, evidence on inferior rectus (IR) injection is scarce.
Retrospective review of patients who underwent IR BTXA between 2001 and 2024 for vertical strabismus. Natural Language Processing using language model, Mixtral-8x7B, identified eligible patients.
Seventy-one patients (n=85 eyes) were identified. Cases were classified into comitant (n=41 eyes), incomitant (n=29 eyes), and restrictive strabismus (n=15 eyes). The average pre-injection deviation at near was 13.0±7.1PD, 11.2±11.1PD and 14.1±8.3PD respectively, and 13.5±8.7PD, 9.0 ±7.3PD and 14.2±9.8PD respectively at distance. The average post-injection deviation at near was 9.2±6.3PD, 10.0±10.4PD, 7.5±8.1PD respectively, and 9.3±6.6PD, 7.5 ±7.5PD and 7.8±5.7PD respectively at distance. Treatment success, which was defined as recorded satisfactory improvement or resolution of symptoms, was reported in 23 (56.1%), 9 (32.1%) and 11 (73.3%) cases in the comitant, incomitant and restrictive groups respectively.
IR BTXA had the highest success rate in restrictive strabismus, followed by comitant strabismus and incomitant strabismus. The observed outcome is presumably due to the gradual onset in most restrictive cases with enlarged fusion ranges. The majority of cases in the incomitant group had a history of previous strabismus surgery, which makes BTXA less favourable.
IR BTXA injection is an effective option for patients with vertical strabismus, especially with restrictive strabismus.

ID-130319
Is Omega-3 an effective intervention for the management of paediatric blepharitis?
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Blepharitis is chronic and symptomatic eyelid inflammation causing discomfort and visual impairment when untreated. It accounts for 5% of UK ophthalmological cases UK and 12- 15% of US paediatric ophthalmology referrals. Conservative management often fails, leading to worsening symptoms necessitating pharmaceutical intervention. This review evaluates Omega-3 as a potential intervention for paediatric blepharitis, considering engagement and cost-efficacy.
A systematic literature search between 2003 and 2023, across four databases identified eight studies meeting inclusion criteria; primary literature, studies that used only Omega-3 as an intervention with clinically relevant data.
No paediatric studies were found. Seven studies with mean ages 41.7- 61 years showed Omega-3 improved subjective symptoms and significantly enhanced meibum quality, especially Tear Break Up Time, and meibum scores.
Omega-3 shows strong evidence for adult blepharitis, but no paediatric studies exist. A

paediatric-specific study is urgently needed, as Omega-3 is likely to improve symptoms based on its benefits in adults and overall health.

ID-130322
Outcomes of Modified Harada-Ito surgery for paretic and restrictive torsional diplopia at a tertiary eye hospital
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Moorfields Eye Hospital, London, UK

Modified Harada-Ito surgery is traditionally used to treat excyclotorsion due to superior oblique weakness. However, it may also be utilised for restrictive torsional diplopia. We present a large case series of outcomes following Harada-Ito surgery.
73 modified Harada-Ito operations were identified at a tertiary hospital; 56 for IV nerve palsy, 8 for restrictive and 9 for other non-restrictive causes. 11 Consultants performed the operations (range 1-21), which were classified as full or partial, depending on whether the tendon was fully advanced to the superior lateral rectus border.
Unilateral full surgery provided a mean improvement of 6° incyclotorsion in primary position, and 7.75° in worst gaze position. This represents improvements of 0.46° and 0.54° per mm of advancement. Partial surgery provided 5.68° and 6.53° of total improvement respectively. These were similar among the different groups, however restrictive causes appeared to regress more rapidly.
35 patients (47.9%) had resolution of diplopia in at least primary position, although most had persistent diplopia in extreme gaze. No patients with restrictive strabismus had resolution of diplopia after Harada-Ito alone. 7 patients (9.6%) developed iatrogenic Brown syndrome, while 1 developed scarring requiring surgical release. 24 patients (32.9%) had subsequent surgery for ongoing diplopia.
Modified Harada-Ito surgery is an effective treatment for torsional diplopia. This is the largest outcome study to date and suggests more modest improvements than some previous studies. The surgical effect may be more transient in restrictive cases. Serious complications are rare, but further surgery is common, particularly where horizontal or vertical diplopia co-exists.

ID-130331
Visual And Oculomotor Outcomes Following Surgical Management of Paedatric Posterior Fossa Tumours At A UK Paediatric Neuro-Oncology Service
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Posterior fossa tumours comprise up to 70% of paediatric brain tumours. To date, no UK study has looked at visual outcomes in paediatric posterior fossa tumours (PPFT) following surgical treatment. Our primary aim was to report rates of visual impairment, strabismus and nystagmus two years after diagnosis of a PPFT.
A retrospective case note review of patients (age 0-18 years) with PPFTs within the Paediatric Oncology Database at a UK tertiary referral centre presenting between the 1st of January 2014 to 31st of December 2022.
PPFTs were diagnosed in 156 paediatric patients. Exclusion criteria was demise within the follow up period (37 patients) and incomplete data (43 patients). Complete data was available for 76 patients. Hydrocephalus (82%) and papilloedema (46%) was noted at presentation. At the two year ophthalmology follow-up (mean 29 months) 40

(53%) patients had abnormal ocular findings. However, mean visual acuity was good: Right eye logMAR 0.08, (SD 0.21) Left eye LogMAR 0.06, (SD 0.20). Two patients had unilateral moderate-severe vison loss (0.6 logMAR or worse) and 2 had bilateral. 3 patients (4%) had visual field loss, 19 (25%) patients had nystagmus and 28 (37%) had strabismus. Ten patients (13%) underwent strabismus surgery.
Papilloedema in PPFTs is the main threat to vision and management of intracranial pressure is vision preserving. Patients with PPFTs have good long-term visual acuity. The involvement of the brainstem in PPFTs results in strabismus and nystagmus as the main sequelae. Further prospective multicentre studies will be needed to inform future practice.

ID-130333
Why young people with visual impairment seek psychological support from Clinical Psychologists
Richa Aspland, Louise Martin, Anja McConnachie
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Aimed to delineate the referral patterns, assessments and interventions undertaken by Clinical Psychologists working with Paediatric Ophthalmology setting with young people with visual impairment (VI) experiencing psychological distress. Previously parents of young people had reported very positive outcomes of psychological support being offered in our service.
Referrals patterns for psychological support over an 18month period were analysed to identify concerns, understand young people's psychosocial difficulties and range of interventions offered. Themes were analysed and collated to understand the work of clinical psychologists within the team, and emphasise importance of this support in offering high quality psychologically informed care within ophthalmology multidisciplinary teams.
Referrals were often centred around coping with diagnosis, adherence to medical interventions, impact of VI on family, peer relationships, functional vision loss, coping, mental health and psychosocial functioning. Assessments broadened referral information to offer psychologically informed formulations encompassing neurodevelopmental, mental health, safeguarding, systemic and psychosocial functioning impacting on young person's experience of their VI across developmental stages. Family support and liaison with school, support systems was key to providing holistic and effective psychological support and care.
The evaluation highlighted the role of clinical psychologists in ophthalmology teams providing evidence-based formulations that can help enhance the young person's coping and functioning when living with complex health conditions. It underscores the importance of adopting systemic and multidisciplinary approaches, involving multi-agency networks, to ensure comprehensive care for patients. Ultimately, the findings reinforce the critical role of paediatric psychologists in ophthalmology settings and aim to increase awareness of their essential contribution to both assessment and intervention.

ID-130349

Bupivacaine Injections for the Treatment of Age-Related Distance Esotropia

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Bupivacaine injection in the extraocular muscles is an emerging treatment for small angle strabismus. The aim of the study was to identify if it can be used as an effective alternative to surgery in patients with age-related distance esotropia (ARDE).
All patients receiving either strabismus surgery or bupivacaine injections for age-related distance esotropia at Aintree University Hospital in 2022-2024 were identified through surgical logbooks and electronic records. Electronic records were retrospectively analysed to collect data on the age, visual acuity, surgical details, complications and pre and post operative horizontal deviation in primary gaze at distance and near. Data was also collected on whether patients had any prior and subsequent treatment (prisms, surgery or bupivacaine) and whether they experienced diplopia at follow up. Complete success was determined as no symptoms of diplopia and no need for further treatment.
8 bupivacaine injections (BPX) and 11 lateral rectus resections (LRR) were performed on patients with ARDE. Average follow up length was 44 and 143 days in the LRR and BPX group respectively. The LRR group reduced the average horizontal distance deviation from 14PD (range 6-20) to 3.9 PD (range 0-8) (1d.p.). 7/11 (64%) of the procedures qualified as a complete success. The BPX group reduced the average horizontal distance deviation from 7.3PD(1d.p.) (range 6-10) to 4.1 PD (range 1-15) (1d.p.). 5/8 (63%) of the procedures were a complete success.
Bupivacaine injection can be used to successfully treat ARDE as an alternative or adjuvant to strabismus surgery.

Screen four

Screening, epidemiology and health services research

ID-125951
Do we need a new symptom questionnaire for Smartphone use?
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University of Liverpool, UK

Almost 70% of the global population were reported to be smartphone users in 2023. Evidence suggests smartphone use is linked to myopia progression, acquired esotropia and can cause a number of ocular symptoms. The Computer Vision Syndrome Questionnaire (CVS-Q) is a validated symptom questionnaire used specifically for computers. Therefore, the aim of our study was to determine if the current CVS-Q was appropriate for use with smartphones.
We used cognitive interviews on smartphone-users aged 11-42 (n=21) to critically evaluate a pre-existing ocular symptom questionnaire. Participants were instructed to describe what they understood by each question, the relevance to smartphone use, and comment on any aspect of the questionnaire and it's administration.
Thematic analysis revealed five themes; symptoms, interpretation of symptoms, phone usage habits, pre-existing conditions, and administration/format of the questionnaire. New symptoms were discovered that were not included within the CVS-Q; such as smartphones causing stress, alertness, and a struggle to change focus. Participants felt there was ambiguity around particular symptoms such as 'foreign body', 'halos around objects' and 'sight worsening'. Symptoms were dependent on phone usage habits e.g. use in "bright mode" or when tired. Participants discussed minor changes to the format, for example use of 'mild' in relation to severity and also including 'duration' of symptom.
Overall, a modified version of CVS-Q could be used to effectively evaluate ocular symptoms produced through smartphone use. Further study is planned for validation of the modified CVS-Q and to determine any a correlation between smartphone use and ocular symptoms.

ID-125959
Future projections of myopia in the UK and Ireland: Trends in prevalence, progression, and pathology through 2050
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This study estimates the prevalence of myopia in the UK and Ireland, forecasts trends through 2050, and evaluates its impact by age group, progression rates, risk of pathological myopia and associated visual impairment (VI).
A systematic review identified studies in the UK and Ireland reporting on myopia prevalence (n=15), progression (n=4), pathological changes (n=1). Myopia was defined as spherical equivalent refraction ≤-0.50 D, and high myopia as ≤ -6.00 D. Linear regression analysis (prevalence plotted against publication year) was used for the prediction model. Risk estimates from comparable populations were used to predict the likelihood of developing myopia-related pathologies and associated VI.
Myopia prevalence is 2.8% in ages 5 to <9, 9.3% in 9 to <12, 15.9% in 12 to <15, 21.5% in 15 to ≤20 and 31.6% in >20-year-olds. Myopia prevalence is projected to increase linearly by 6.9% every decade (0.7% every year) in 5 to ≤20-year-olds and by 4.0% every decade (0.4% every year) in >20-year-olds, with expected prevalence of 40.5%

and 47.6% (respectively) by 2050. Rate of myopia progression in ≤20 years was -0.41 D/year and 0.37 mm/year. The projected number of individuals aged ≥40 developing myopia-related pathologies and VI is expected to increase by 73.1% and 72.4%, respectively, between 2022 and 2052, with similar increases observed in low and high myopia groups.
Estimates of myopia are projected to rise significantly, increasing the risk of myopia-related complications and VI, even among low myopes. Active eye care interventions focused on preventing the onset and slowing its progression are needed.

ID-130032
Thyroid Eye Disease in Children (A National Survey)
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University Hospital of Wales, UK

Although the risk of Thyroid Eye Disease (TED) is similar across age groups, it remains rare in paediatric ophthalmology. This study surveyed UK and Ireland-based ophthalmologists to evaluate the presentation, management, and outcomes of paediatric TED over the past decade.
An online survey was distributed to ophthalmologists with a subspecialty in paediatric ophthalmology and strabismus. Respondents reported on TED cases seen in the last 10 years, detailing demographics, clinical features (e.g., lid signs, proptosis, motility issues, dysthyroid optic neuropathy [DON], exposure keratopathy), thyroid status, smoking history, treatments, and outcomes.
Of 61 respondents, 40 had managed paediatric TED, accounting for 92 cases. Most patients were female (86%), aged 11–15 (50%), and hyperthyroid (93%). The most common signs were lid retraction (83%), proptosis (80%), and lid lag (76%). Ocular motility restriction occurred in 28%, exposure keratopathy in 15%, and DON in 4%. Orbital decompression was performed in 8% of cases, with permanent vision loss reported in 3 of 4 DON cases.
The findings reinforce that paediatric TED predominantly affects hyperthyroid adolescent females and often presents with anterior segment signs. Despite perceptions of TED in children being mild, serious complications such as DON and vision loss do occur. The low incidence may lead to delayed recognition, underscoring the importance of awareness and prompt referral. The small number of surgical interventions suggests a conservative approach remains common.
Paediatric TED can result in permanent visual impairment. Multidisciplinary care involving endocrinology is vital for timely diagnosis and management of vision-threatening disease.

ID-130108
Bridging the Gap: Transforming ROP Screening Through Systematic Referral Pathways in a Tertiary NICU in a Low- to Middle-Income Country
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To evaluate the impact of implementing a structured referral and education system on improving screening rates for retinopathy of prematurity (ROP) in a tertiary care

referral university hospital in a low- to middle-income country.
A retrospective audit was conducted from 2015 to 2023. Initially, ROP screening was inconsistent due to the absence of formal referral pathways and limited awareness among NICU staff and parents. In 2018, a structured process was introduced: NICU staff were trained on ROP screening guidelines, parental counselling was initiated, and educational leaflets were developed. From 2019 onwards, additional interventions included parent seminars, integration of ROP leaflets into discharge packages, administrative coordination for automatic referrals, and standardized ROP follow-up forms.
From 2015–2017, only 162 out of 422 eligible infants (38.4%) were screened. After 2018 interventions, screening coverage rose to 66.7% (104/156). Continued improvements in 2019 saw 305/355 infants (85.9%) screened, and by 2020, 97.6% (164/168) were screened. From 2021–2023, 628 out of 636 infants (98.7%) were screened. The few missed cases from 2019 onward were families from out-of-area regions, redirected to local services; follow-up data for these cases were unavailable.
The absence of a structured referral process initially led to significant screening gaps. Staff and parent education, automated referrals, and standardised documentation significantly improved ROP screening uptake.
A coordinated, multidisciplinary approach can transform ROP care delivery in low- to middle-income countries, significantly reducing missed screenings and enhancing neonatal outcomes.

ID-130116
Diagnosing Acquired Cytomegalovirus Through the Detection of Retinal White Dots During Routine Retinopathy of Prematurity Screening
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Te Toka Tumai Auckland, Te Whatu Ora, Auckland, New Zealand, The University of Auckland, Auckland, New Zealand

Preterm infants are at high risk of developing acquired infections such as cytomegalovirus (CMV). Breast milk is the main route of CMV transmission in populations with a high seroprevalence. Acquired CMV is associated with increased length of stay and increased risk of pulmonary and neurologic complications with occlusive retinal vasculitis being the most concerning ocular complication. We present a case series on the detection of retinal white dots during routine retinopathy of prematurity (ROP) screening on the Neonatal Intensive Care Unit (NICU), which is associated with CMV and has not been previously reported.
Between January 2021 and March 2024, thirteen babies undergoing routine ROP screening were found to have multiple small midperipheral retinal white dots in one or both eyes, all of which were known or later found to have CMV. The first two babies were known congenital CMV; white dots were noted, which subsequently resolved. Similar dots were noted in nine other preterm babies that had previously normal retinas on ROP screening, prompting repeat infective testing, which revealed acquired CMV infection in all nine; two received systemic valganciclovir. Two additional babies developed CMV vasculitis and were systemically unwell requiring systemic valganciclovir. The white dots and vasculitis faded in all thirteen babies within 1-4 months of initial detection.
Focal retinal white dots may be the primary sign of acquired CMV infection. If detected

on ROP screening, the NICU team should be notified, infective screen performed, systemic treatment considered, and regular monitoring until resolution in addition to ROP screening and treatment guidelines.

ID-130125
Evolving Trends in ROP Screening and Treatment: A Five-Year Review from a Regional Centre
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Addenbrookes Hospital, Cambridge, UK

This analysis of all ROP screening and treatment episodes from 2019 (one year prior to the COVID-19 pandemic) to 2023 (three years post-pandemic) evaluates trends in the annual number of screenings and treatments, change in prematurity profile and proportion of cases diagnosed with ROP and requiring treatment.
The pandemic reduced ROP screening activity by 22.7% ($p = 0.02$). The number of treatments dropped by nearly half during the lockdown. Trend analysis in the post-pandemic period revealed a rebound, with both screenings—including outpatient screenings—and treatments increasing compared to the pre-pandemic period. Between 2019 and 2023, the overall number of screening and treatment episodes rose by 22.4% ($p = 0.08$) and 164.3% ($p = 0.03$), respectively. The increase in treatments was statistically highly significant.
Between 2019 and 2023 the proportion of patients diagnosed with ROP increased from 22.8% to 33.3% and the percentage of patients with ROP requiring treatment rose from 30.3% to 64.1%. The proportion of extremely preterm infants requiring screening rose from 31.0% in 2019 to 45.3% in 2023.
The pandemic temporarily reversed the growing number of ROP screenings and treatments and improved the prematurity profile. However, now levels are worse than pre-pandemic. The increasing numbers of extremely preterm infants may explain the increasing frequency of treatment requiring ROP.
This analysis suggests we should explore why case numbers reduced during the pandemic, why they are now increasing and what can be done to improve service delivery to tackle the increasing numbers of cases today.

ID-130146
National Trends in the Assessment of Suspected Paediatric Disc Swelling
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Suspected optic disc swelling is a common referral for children and creates significant demand on acute services. The differentiation of it from other conditions can present a diagnostic challenge but is essential to avoid unnecessary investigations (Chang, M.Y. et al Ophthalmology 2022; 127; 10.1016/j.ophtha.2020.03.027).
An online survey was created to evaluate the national patterns for the initial assessment of children referred with suspected disc swelling and was sent to NHS paediatric ophthalmology consultants obtained via BIPOSA platform.
35 responses - 91% consultants, 6% non-consultant doctors, 3% orthoptist. 39% of patients were reviewed in eye casualty, 36% general paediatric clinics, 21% disc clinics and 21% emergency paediatric clinics. Clinical tests undertaken included visual acuity

(100%), Ishihara plates (80%), pupil assessment (94%), motility assessment (74%), slit lamp bio-microscopy (80%) and dilated examination (74%). Investigations included OCT imaging (100%), disc photos (94%), Humphrey visual fields (26%), autofluorescence (66%) and b-scan ultrasound (26%). The decision maker varied - 53% consultants, 37% non-consultant doctors and 10% allied health professionals. Results show variation in practice with no consistent pathway. Ancillary tests are heavily relied on, but limited evidence exists demonstrating if these can truly differentiate pathology (Li, Y. et al Clinical and Experimental Optometry 2023; 106(7); 10.1080/08164622.2022.2156775). Decision makers are not always paediatric consultants, with a risk of over or under diagnosis when seen by non-specialists.
The survey demonstrates wide variation in practice nationally for the initial assessment of children with suspected optic disc swelling. Further work is needed to standardise the approach in such cases.

ID-130200
Screening and Treatment Outcomes for Retinopathy of Prematurity in Infants <31 Weeks' Gestation or <1501g: A Decade-Long Retrospective Analysis at a Tertiary Care Center in London
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St George's University, London, UK

Retinopathy of prematurity (ROP) remains a leading cause of preventable childhood blindness in preterm infants. This study presents a ten-year retrospective analysis of ROP incidence, severity, and treatment outcomes at a tertiary neonatal unit in London. All infants born at <31 weeks' gestation or with a birth weight <1501g between January 1, 2015, and December 31, 2024, were included (n = 464). ROP screening was performed in accordance with national guidelines. A detailed subset of 73 infants with complete ophthalmologic records was analysed for disease severity, treatment modalities, and associated clinical factors.
Of the total cohort, 50 infants (10.7%) required treatment for ROP. Among the 73 infants in the detailed cohort, 68.4% were inborn and 31.5% were transferred from other hospitals. Advanced ROP (Stage ≥3) was observed in 75.3% of treated infants. The mean gestational age at birth was 24 weeks. Notably, 61.6% received a complete antenatal steroid course, while 56.1% required postnatal steroids. The mean durations for parenteral nutrition, invasive ventilation, and total ventilation (invasive + non-invasive) were 45, 54, and 72 days respectively. Surgical necrotizing enterocolitis occurred in 31.5% of cases, and chorioamnionitis was noted in 5.4%. The mean corrected gestational age at Threshold ROP diagnosis was 36 weeks.
All ROP cases received treatment: 78% with laser photocoagulation alone, 16.4% with intravitreal Avastin, and 4.1% with Lucentis. One case received combination therapy. Four infants (5.4%) required referral for vitrectomy.
The incidence of treatment-requiring ROP was 10.7% over the ten-year period. Most affected infants presented with severe disease. These findings underscore the importance of early screening and timely intervention in high-risk neonatal populations to prevent vision loss.

ID-130201

South Yorkshire's Experience – 15 Years Journey of Juvenile Idiopathic Arthritis-Associated Anterior Uveitis Screening Service: Temporal Trends and Associated Socio-demographic Characteristics

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Juvenile Idiopathic Arthritis (JIA)-associated uveitis (UV) causes majority of uveitis in children and young people (CYP). We aimed to describe uptake of JIA-UV screening in a large regional service and identify socio-demographic associations.
Clinical audits were conducted based on the 2006 guidelines published by British Society for Paediatric and Adolescent Rheumatology and The Royal College of Ophthalmologists. Logistic regression was used to describe associations between socio-demographic factors (gender, age, area deprivation, rurality and regional variation).
656 CYP were diagnosed and enrolled in JIA-UV-screening service between 2009 and 2024. The mean age at referral was 9.2±4.2 years, 56% were female and main JIA subtypes were oligoarticular (39%). Audits showed improved attendance pre- and post-2016 from 155/234(66%) to 326/422(77%) ($p<0.05$) for first visit, 76/234(32%) to 181/301(60%) ($p<0.05$) for first 6 months, and 140/234(60%) to 165/254(65%) ($p>0.05$) for subsequent assessments. From 2017, with an 99% uptake, appointments offered within timeframe ranged from 70% to 86%. Demographically, 86.0% CYP are from urban area. 66.3% classed as more deprived medianly. Odds of attendance from rural, adjusted odds ratio (OR) [0.85(95%CI:0.34-2.16), p=0.74] and outside Sheffield, OR [1.40(95%CI:0.48-4.07), p=0.54] are comparable to urban and Sheffield. Higher deprivation was associated with lower CYP attendance: OR [0.42(95%CI:0.18-0.99), p=0.047], OR [0.30(95%CI:0.11-0.81), p=0.018], OR [0.34(95%CI:0.16-0.73), p=0.006] for first, 6 months and subsequent assessments respectively.
Geographical region within and outside region does not affect attendance rate. No uveitis was diagnosed outside the recommended screening period.
Higher deprivations are associated with lower attendance, targeted support should be focused on the more deprived population.

ID-130210

The relationship between optic canal area and the optic nerve head in children at risk of intracranial hypertension: A retrospective cross-sectional study

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The size of the optic canal has been hypothesised to influence the optic nerve head (ONH) response to raised intracranial pressure (ICP). Larger optic canals may allow freer cerebrospinal fluid (CSF) flow into the optic nerve sheath, potentially increasing the severity of papilloedema. Previous studies have explored this relationship in adults using fundoscopy, but with mixed findings. We aimed to evaluate this association using optical coherence tomography (OCT)-based markers of raised ICP in children, and we further explored whether optic canal size is related to demographic factors.
We retrospectively identified children who had undergone OCT imaging of the ONH and head computer tomography (CT) scanning. ONH parameters included rim height, cup depth, and Bruch's membrane angulation. Optic canal cross-sectional area was

measured from CT, and both eyes were analysed. Linear regression and paired comparisons were used to assess associations.
Fifty-four children (mean age 5.2±3.4 years; 25 female; 33 craniosynostosis) were included. There was no significant association between optic canal area and ONH parameters at the population level. However, within individuals, asymmetry in optic canal area negatively correlated with cup depth asymmetry (r=-0.33, p=0.02). A weak but significant negative correlation was observed between optic canal area and age (r=-0.20, p=0.04), particularly in children without craniosynostosis (r=-0.39, p=0.01).
These findings suggest that while optic canal size may not confound ONH markers of raised ICP, it may play a role in intereye asymmetry. Its unexpected negative association with age—particularly in those with normal cranial development—warrants further investigation.

ID-130231
Addressing Barriers to Amblyopia Therapy
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Socioeconomic disadvantage adversely affects vision outcomes worldwide and there is mixed evidence regarding its effect on amblyopia treatment outcomes in the UK. Amblyopia therapy is effective, but published success rates vary considerably, from 19 to 93%. The aims of this study were to: 1) understand what the barriers and enablers to occlusion therapy are, for families across the socioeconomic spectrum; 2) gather parental suggestions about reducing barriers.
A Research Orthoptist conducted individual interviews with parents/guardians of children who have undergone occlusion treatment for amblyopia, under the community orthoptic service at the Manchester Local Care Organisation. Thematic analysis of interview transcripts was performed.
Nineteen interviews were completed. To date, four main themes have been conceptualised about the feasibility of occlusion therapy for families: 1) knowledge and understanding of amblyopia and its treatment; 2) the experience of occlusion treatment, including orthoptic appointments; 3) individual characteristics of people in the child's life; 4) the orthoptic service design.
Preliminary analysis suggests that methods of improving awareness and understanding of amblyopia, particularly for parents and others in society, are necessary.

ID-130300
Real-world myopia management: prospective case series of 0.05% atropine alone and in combination with optical treatment
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Real-world data on low-concentration atropine remains limited, particularly about the use of the 0.05% concentration, which may offer higher efficacy, but may also adversely affect near point of accommodation (NPA) and near visual acuity (NVA).
We analysed prospectively collected data (2020-2022), using descriptive statistics and

paired/unpaired t-test, assuming equal variances; SPSS v28 (IBM).
We included 44 children; mean (SD) age 9.4 (2.6) years; 20 girls (45%); 17 White (39%); 13 used atropine only, 31 combined with optical treatment.
In children <12 years (n=36), mean axial elongation (right eyes) was 0.14 (SD 0.14) mm over the first and 0.29 (SD 0.36) mm over the following year. In >12 years (n=8), it was 0.11 (SD 0.14) mm and 0.15 (SD 0.22) mm. Elongation was higher in non-White children: mean (SD) 0.17mm vs 0.09mm over the first (p=0.03, n=44), and 0.28mm vs 0.16mm over the second year (p=0.25, n=18). There was a significant change in mean NPA from 8 to 13cm after starting atropine 0.05% (p=0.006), with no further change during the second year (p=0.4). Near acuity remained unchanged; N5 (p>0.05).
Compared with published values of > 0.25mm/a in <12 years, atropine 0.05% may significantly slow axial elongation in first year of use, across ethnic groups. In line with published data, the effect was lower in the second year of use. Despite an impact on accommodation, it is well tolerated, with near acuity not affected.

ID-130324
Prevalence of Peripapillary Hyperreflective Ovoid Mass-Like Structures in Children: A Systematic Review and Meta-Analysis
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Peripapillary hyper-reflective ovoid mass-like structures (PHOMS) are commonly seen in optical coherence tomography (OCT) imaging of the optic nerve head. Its pathogenesis is poorly understood and is often seen in children presenting with possible optic nerve swelling. We aim to review the prevalence of PHOMS in children and the co-existence of PHOMS in ocular pathologies.
A systematic review was conducted on 15th March 2025 on PubMed, EMBASE and Web of Science. To estimate the pooled prevalence of PHOMS, random effects meta-analyses were conducted.
Two studies provided the prevalence of PHOMS in normal children (n=1572). The pooled prevalence was 4.91% (95% CI: 0.51-12.44%). Four studies looked at children referred for suspected optic nerve swelling. Among this cohort (n=497), the prevalence of PHOMS was 82.6% (95% CI 59.0-98.1%). Three studies reported the co-existence of PHOMS in children with optic disc drusen (n=164). PHOMS were identified in 90.2% (95% CI 73.3-99.7%) of eyes with disc drusen. One study provided the prevalence of PHOMS in children with papilloedema (180/308 eyes; 58.4%) and optic neuritis (9/59 eyes; 15.3%). Among Danish myopic children, a study found the prevalence of PHOMS to be 19.6% (38/194 eyes) while another study looking at Chinese children reported a prevalence of 66.3% (67/101 eyes). One study determined the prevalence of PHOMS in children with craniosynostosis to be 22.0% (n=118).
This review shows that PHOMS are commonly seen in both normal and pathological eyes. Therefore, when PHOMS are identified on OCT imaging, other co-existing ocular pathologies should also be carefully considered.

ID-130326

Refractive error development in a case series of intermittent distance exotropia

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Intermittent distance exotropia is the most common form of exotropic strabismus. Many children and young people (CYP) do not require refractive correction at the time of diagnosis. The prevalence of myopia in a UK population is less than 10%.
We conducted a retrospective case note review of (CYP) under 16 years of age diagnosed with intermittent distance exotropia. We report the proportion of myopia, spherical equivalent (SE) and determined the rate of refractive error progression from the initial to the last recorded refraction
We identified 301 CYP with intermittent exotropia who attended Moorfields Eye Hospital between 2022 and 2023. Of these, 154 had complete refractive error data. The total proportion of myopic right eyes increased from 38.3% to 46.8% - with a median age of 7.9 years (range: 3–16 years). The interval between the first and last refraction varied, with a mean follow-up duration of 29.8 months (range: 8–60 months). Spherical equivalent (SE) values showed a myopic shift with a mean change of -0.54D in the right eye (range: -4.75D to +1.50D). This corresponded to an average annual progression rate of -0.24D for the right eye.
Our data indicate a general trend toward myopic progression over time in children with intermittent exotropia. The prevalence of myopia far exceeds that in the general paediatric population, but the myopic shift was not greater than in our overall paediatric hospital population (-0.40D/year). The Annual myopic shift seemed slightly higher in children aged 7 and younger, but this was not statistically significant.

ID-130330

The role of non-leukocoria red reflex referrals in detecting ocular pathology in an ethnically diverse population: a multi-centre study

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The ‘red’ reflex test is a screening tool used to identify serious ocular pathologies in children and infants. Recent studies suggest variability in the positive predictive value (PPV) of this test. To evaluate its diagnostic value, we stratified referrals to absent or abnormal reflexes (non-leukocoria) and white reflex (leukocoria), an essential indicator of urgent sight- or life-threatening conditions. Non-leukocoria referrals may also signify non-urgent conditions, although it is often misinterpreted in non-white individuals.
We retrospectively reviewed ‘red’ reflex referrals at Moorfields Eye Hospital (January – December 2022) and Royal London Hospital (January 2021 – February 2023), excluding leukocoria referrals. Examination outcomes, patient demographics, referral source and reason, and appointment lag time were assessed. Urgent conditions included sight-threatening (e.g. cataract) and/or life-threatening conditions (e.g. retinoblastoma) requiring intervention. Non-urgent conditions included strabismus and amblyopia.
43 children were included, a median age of 3 months and 20.5% white. Most referrals were from general practitioners (86%) and the median lag time was 6 days. 93% were

normal. Two strabismus and one high refractive error resulted in a PPV of 6.98% for non-urgent conditions. No referral mentioned an examination of parents.
Our study confirmed a low diagnostic value of absent or abnormal ‘red’ reflexes in an ethnically diverse population. This increases the burden on paediatric ophthalmology services as these children need to be seen urgently. The low proportion of white children suggests a misinterpretation of the ‘red’ reflex. We advise examination of parents and the use of the term ‘glow’ reflex while maintaining emphasis on leukocoria screening.