Ophthalmology Update

July 2023



Welcome to the latest copy of the Ophthalmology Update. The aim of this publication is to bring together a range of recently published research and guidance that will help you make evidence-based decisions.

Accessing Articles

The following abstracts are taken from a selection of recently published articles.

If the article is available electronically, then there will be a blue link in the abstract. [Press CTRL and click to open the link. You will need to be registered for NHS Athens (see below) to be able to access the full text.] If the full text is not available electronically we may be able to obtain the document through our document supply services.

NHS Athens

Athens passwords allow you to download the full text of articles, where the Trust has a subscription. These are noted at the end of an abstract. To register for a free NHS Athens account please log on to: https://openathens.nice.org.uk/

If you would like help in registering and using NHS Athens accounts, please contact the Library & Knowledge Service.

If you would like to order a copy of the full paper

If we don't have full text access, please contact the Library & Knowledge Service, details below. There is sometimes a small charge for using the document supply services, depending where we can source items from.

Library & Knowledge Service

We are located on 2nd floor, New Alderley House and are staffed from 9.00amto 4.30pm Monday to Friday. 24-hour access is available, just swipe in with your Trust ID badge. You can issue and return books using the self -service kiosk, access the PCs and study facilities.

Contact us

General library enquiries: telephone - 01625 66 1362 or email - <u>ecn-tr.StaffLibrary@nhs.net</u> Holly Cook, Clinical Outreach Librarian: telephone – 01625 66 3398 or email - <u>holly.cook3@nhs.net</u> Further information on library services and contacts: <u>www.eastcheshirenhslibrary.net</u>

Feedback and requests for additional evidence searches

We welcome your feedback on this update (for example, the format, relevancy, timeliness). Please leave your comments: <u>https://forms.gle/yTsSe7C7o5RGL4fX9</u>

We also have other services to help you keep up-to-date: <u>www.eastcheshirenhslibrary.net/keep-up-to-date.html</u>. Please contact Holly if you would like more information, or further evidence searches: <u>holly.cook3@nhs.net</u>.

A selection of papers from Medline and CINAHL (Jan-Jul 23)

Contents

1. JAMA Ophthalmology—The Year in Review, 2022: Continued Evolution for Readers, Authors, and Editors3
2. Is preventable sight loss truly preventable? An exploration of a public health indicator for sight loss due to age- related macular degeneration in England
3. Myopia: An ounce of prevention is worth a pound of cure
4. Non-response to first-line hormonal treatment for symptomatic endometriosis: overcoming tunnel vision. A narrative review
5. Developing refractive management recommendations for patients undergoing cataract surgery: A Delphi study5
6. Association of glaucoma and lifestyle with incident cardiovascular disease: a longitudinal prospective study from UK Biobank
7. Application of Artificial Intelligence to Improve Imaging in Ophthalmology
8. The disparity between funding for eye research vs. the high cost of sight-loss in the UK7
9. The Royal College of Ophthalmologists' National Ophthalmology Database study of cataract surgery: Report 9, Risk factors for posterior capsule opacification
10. Severe mental illness and ophthalmic health: A linked administrative data study
11. Burden of Glaucoma in the United Kingdom: A Multicenter Analysis of United Kingdom Glaucoma Services8
12. Management of Vernal Keratoconjunctivitis in Children in the United Kingdom: A Review of the Literature and Current Best Practice Across Six Large United Kingdom Centers
13. Diabetic retinopathy progression in patients under monitoring for treatment or vision loss: external validation and update of a multivariable prediction model
14. A rapid review of evidence relating to service use, experiences, and support needs of adults from minority ethnic communities along the eyecare pathway in the United Kingdom
15. Inequities and Research Gaps in Ophthalmology: A Scoping Review11
16. Educational attainment and trajectories at key stages of schooling for children with amblyopia compared to those without eye conditions: Findings from the Millennium Cohort Study
17. Development of prediction models to estimate extubation time and midterm recovery time of ophthalmic patients undergoing general anesthesia: a cross-sectional study
18. Distance spectacle-wearing habits in older patients in England13
19. Ocular manifestations of COVID-19 in pediatric patients13
20. When Pediatric Headaches Are Not Benign—Eye Findings14
21. Image analysis ideal for Al in ophthalmology14
22. Comparison of infliximab with adalimumab for the treatment of non-infectious uveitis: a systematic review and meta-analysis
23. Are wearable electronic vision enhancement systems (wEVES) beneficial for people with age-related macular degeneration? A scoping review

24. Paediatric eye and vision research participation experiences: a systematic review
25. Acute unilateral isolated ptosis as a complication of sinusitis in a post-COVID-19 patient
26. Expansion of patient eligibility for virtual glaucoma clinics: a long-term strategy to increase the capacity of high-quality glaucoma care
27. Long-Term Clinical and Safety Outcomes of Canaloplasty Performed across All Grades of Glaucoma Severity . 17
 Transient Light Sensitivity Syndrome (TLSS) Incidence Following Femtosecond LASIK for Myopic and Hyperopic Eyes and Femtosecond SMILE for Myopic Eyes
29. Visual Performance of Eyes with Residual Refractive Errors after Implantation of an Extended Vision Intraocular Lens
30. Iridotomy to slow progression of visual field loss in angle-closure glaucoma
31. Worsening vision at age 4-5 in England post-COVID: Evidence from a large database of vision screening data 20
32. Retrocorneal Scleral Patch Supported Glue: A Technique for Management of Corneal Perforation and Corneoscleral Melt following Pterygium Surgery21
33. Artificial intelligence and machine learning in ophthalmology: A review
34. The Ophthalmic Manifestations of Down Syndrome22
35. Temporal trends in the epidemiology of childhood severe visual impairment and blindness in the UK22
36. The Mediterranean Diet and Age-Related Eye Diseases: A Systematic Review
37. Genome-wide analysis of genetic pleiotropy and causal genes across three age-related ocular disorders23
38. Clinical Applications of Artificial Intelligence in Glaucoma24
39. Plasma metabolite profile for primary open-angle glaucoma in three US cohorts and the UK Biobank
40. Exogenous hormone use and the risk of surgically treated cataract: Evidence from 91 760 female participants in the 45 and Up Study

1. JAMA Ophthalmology—The Year in Review, 2022: Continued Evolution for Readers, Authors, and Editors

Item Type: Journal Article

Authors: Bressler, Neil M.

Publication Date: 2023

Journal: JAMA Ophthalmology 141(2), pp. 421-422

Access or request full text: https://libkey.io/10.1001/jamaophthalmol.2023.0587

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=163824440&custid=ns0234</u> 46

Facilitating evidence-based decision making

2. Is preventable sight loss truly preventable? An exploration of a public health indicator for sight loss due to age-related macular degeneration in England

Item Type: Journal Article

Authors: Brown, Kelsey;Bunce, Catey;Onabanjo, Oluwaseun;Strong, Stacey A. and Patel, Praveen J.

Publication Date: 2023

Journal: Eye (London, England) 37(3), pp. 516-523

Abstract: Background: Age-related macular degeneration accounts for the majority of severe sight impairment and sight impairment registration and certifications in adults in the UK 1, 2]. Whilst these treatments are effective in arresting nAMD progression, there is currently no treatment for GA 1, 3, 4].; Methods: This paper provides an update to the data collected by Bunce et al. 3] and details the number of people certified together with incidence rates for the various types of AMD by: sex, sight impairment status, and for all ages using the 2016/2017 and 2017/2018 CVI due to AMD data for England from the Moorfields Eye Hospital, supplemented with 2017-2018 PHOF indicator 4.12i/E12a data. The study population includes individuals of all ages in England who were newly certified with visual impairment due to AMD.; Results: Between 2016 and 2017, CVIs due to AMD totalled to 11,215; between 2017 and 2018, CVIs due to AMD totalled to 10,914. The PHOF indicator 4.12i/E12a assessed showed that overall rates of AMD certifications have steadily declined in England from 131.5 per 100,000 in 2010/2011 to 106.7 per 100,000 in 2017/2018.; Conclusion: As treatment is available for nAMD, a reduction in nAMD certifications could be expected; however, growth of the elderly population in England combined with there currently being no treatment available for GA means AMD certification rates should be increasing. Therefore, it is postulated that not all cases of AMD are being certified and registered with some likely going undiagnosed. (© 2022. The Author(s).)

Access or request full text: https://libkey.io/10.1038/s41433-022-01933-7

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=35197562&custid=ns0234</u> 46

3. Myopia: An ounce of prevention is worth a pound of cure

Item Type: Journal Article

Authors: Bullimore, Mark A. and Brennan, Noel A.

Publication Date: 2023

Journal: Ophthalmic & Physiological Optics : The Journal of the British College of Ophthalmic Opticians (Optometrists) 43(1), pp. 116-121

Abstract: Purpose: Myopia severity has a profound impact on visual impairment in later life. A patient's final level of myopia may be lowered by myopia control, but also by delaying onset. Here, we evaluate the influence of the age of onset on the final recorded level of myopia.; Methods: Data were extracted from: (1) Three prospective cohort studies of myopia progression in East Asia and the United States where the final recorded level of myopia is presented as a function of the established age of onset. (2) Four retrospective studies of myopia progression in Finland, India, the Netherlands and China and two cross-sectional studies in Argentina and the UK where the age of onset was based on self-report of age at first spectacle prescription. (3) A cohort study of Finnish subjects originally recruited for a clinical trial and followed into adulthood. Subjects were divided into five groups according to age at recruitment that was used as a surrogate for the age of onset.; Results: Final recorded level of myopia was plotted as a function of age of onset for all studies. Among the three East Asian studies, the slopes are between 0.68 and 0.97 D/year, meaning that each later year of onset is associated with between 0.68 and 0.97 less myopia at the final

recorded refraction. For six of the seven non-East Asian studies, the slopes are substantially flatter, with slopes between 0.23 and 0.50 D/year. By contrast, the slope for the Finnish study was 0.87 D/year. Increasing age of final recorded refraction tended to be associated with higher levels of myopia.; Conclusion: Among East Asians, delaying the onset of myopia by 1 year has the potential to lower the final myopia level by 0.75 D or more-equivalent to 2-3 years of myopia control with existing modalities. The benefit is lower, but meaningful, among non-East Asians. (© 2022 College of Optometrists.)

Access or request full text: https://libkey.io/10.1111/opo.13058

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36197452&custid=ns0234</u> 46

4. Non-response to first-line hormonal treatment for symptomatic endometriosis: overcoming tunnel vision. A narrative review

Item Type: Journal Article

Authors: Cetera, Giulia Emily; Merli, Camilla Erminia Maria; Facchin, Federica; Viganò, Paola; Pesce, Elisa; Caprara, Francesca and Vercellini, Paolo

Publication Date: 2023

Journal: BMC Women's Health 23(1), pp. 1-13

Access or request full text: https://libkey.io/10.1186/s12905-023-02490-1

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=164659249&custid=ns0234</u> 46

5. Developing refractive management recommendations for patients undergoing cataract surgery: A Delphi study

Item Type: Journal Article

Authors: Charlesworth, Emily;Ursell, Paul;Ho, Kam Chun;Keay, Lisa and Elliott, David B.

Publication Date: 2023

Journal: Ophthalmic & Physiological Optics : The Journal of the British College of Ophthalmic Opticians (Optometrists) 43(1), pp. 150-159

Abstract: Purpose: Currently, there are no UK optometric guidelines regarding the pre and postoperative refractive management of patients undergoing cataract surgery. This study used a Delphi method to gain consensus on best practice.; Methods: Eighteen recommendations targeted areas of concern/variability in advice that were highlighted in an earlier focus group study of refractive management for patients who had received cataract surgery. These covered three topics: preoperative target refraction discussions, postoperative refractive management and driving advice postoperatively. The recommendations were then developed using evidence from optometry and ophthalmology clinical expertise and the research literature. Eighteen recommendations underwent a process of agreement and modification using a Delphi study consisting of a panel of 22 highly experienced optometrists (N = 11, 25 years mean clinical experience) and ophthalmologists (N = 11, 17 years mean clinical experience) who rated and commented upon the importance and feasibility of each recommendation. The responses were considered by the research team and the recommendations modified and/or removed prior to a second Delphi round of responses to a

modified series of recommendations. Consensus of opinion was defined as greater than 80% of panellists 'agreed' or 'strongly agreed' on the recommendation for both importance and feasibility.; Results: Fourteen of the 18 recommendations reached consensus in the first round. A second round of the Delphi method saw 17 modified recommendations scored and commented upon by 20 clinicians. Fifteen recommendations reached consensus after two rounds of the Delphi method.; Conclusions: Recommendations to guide the pre and postoperative refractive management of patients undergoing cataract surgery were agreed between highly experienced optometrists and ophthalmologists using a 2-round Delphi method. Patients would benefit from consistent target refraction discussions, postoperative refractive management and driving advice, and recommendations were of particular benefit to less experienced optometrists. (© 2022 The Authors. Ophthalmic and Physiological Optics published by John Wiley & Sons Ltd on behalf of College of Optometrists.)

Access or request full text: https://libkey.io/10.1111/opo.13069

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36385383&custid=ns0234</u> 46

6. Association of glaucoma and lifestyle with incident cardiovascular disease: a longitudinal prospective study from UK Biobank

Item Type: Journal Article

Authors: Choi, Jin A.;Lee, Su-Nam;Jung, Sang-Hyuk;Won, Hong-Hee and Yun, Jae-Seung

Publication Date: 2023

Journal: Scientific Reports 13(1), pp. 2712

Abstract: The shared pathophysiological features of the cerebrovascular disease (CVD) and glaucoma suggest an association between the two diseases. Using the prospective UK Biobank cohort, we examined the associations between glaucoma and incident CVD and assessed the extent to which a healthy lifestyle reduced the CVD risk in subjects with glaucoma, using a scoring system consisting of four factors: current smoking, obesity, regular physical activity, and a healthy diet. During a mean follow-up time of 8.9 years, 22,649 (4.9%) incident CVD cases were documented. Multivariable Cox regression analyses revealed that subjects with glaucoma were significantly more likely to exhibit incident CVD (hazard ratio HR]:1.19, 95% confidence interval CI] 1.03-1.37; p = 0.016) than controls. In the further subgroup analyses, glaucoma increased incident CVD risk both in the young (40-55 years) and the old (56-70 years) and in both sexes, with higher risk in the young (HR: 1.33, CI 1.02-1.74) and female subjects (HR: 1.32, CI 1.14-1.52). When we analyze the associations between glaucoma and incident CVD by lifestyle factors, the highest absolute risks were observed in individuals with both glaucoma and an unhealthy lifestyle (HR: 2.66, CI 2.22-3.19). In conclusion, glaucoma was an independent risk factor for incident CVD. A healthy lifestyle was associated with a substantially lower risk for CVD incidence among adults with glaucoma. (© 2023. The Author(s).)

Access or request full text: https://libkey.io/10.1038/s41598-023-29613-w

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36792671&custid=ns0234</u> 46

7. Application of Artificial Intelligence to Improve Imaging in Ophthalmology

Item Type: Journal Article

Authors: Christopher, Mark

Publication Date: Jan ,2023

Journal: Journal of Ophthalmic & Vision Research 18(1), pp. 1-2

Access or request full text: https://libkey.io/10.18502/jovr.v18i1.12719

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=162044634&custid=ns0234</u> 46

8. The disparity between funding for eye research vs. the high cost of sight-loss in the UK

Item Type: Journal Article

Authors: Dewing, Jennifer M.; Lotery, Andrew J. and Ratnayaka, J. A.

Publication Date: 2023

Journal: Eye (London, England) 37(4), pp. 584-586

Access or request full text: https://libkey.io/10.1038/s41433-022-02228-7

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36167984&custid=ns0234</u> 46

9. The Royal College of Ophthalmologists' National Ophthalmology Database study of cataract surgery: Report 9, Risk factors for posterior capsule opacification

Item Type: Journal Article

Authors: Donachie, Paul H. J.; Barnes, Beth L.; Olaitan, Martina; Sparrow, John M. and Buchan, John C.

Publication Date: 2023

Journal: Eye (London, England) 37(8), pp. 1633-1639

Abstract: Background/objectives: Posterior Capsule Opacification (PCO) is the most common long-term postoperative adverse occurrence after cataract surgery often requiring treatment with YAG laser posterior capsulotomy. This study aimed to identify potential risk factors, known at the time of cataract surgery, that influence the development of PCO.; Subject/methods: A retrospective study of publicly funded cataract surgery from The Royal College of Ophthalmologists' National Ophthalmology Database. Eligible for analysis were 500,872 cataract operations performed in 41 participating centres.; Results: The 500,872 operations were performed on 243,167 (48.5%) left eyes and 257,705 (51.5%) right eyes from 373,579 patients by 2196 surgeons. Post-cataract PCO was recorded for 61,778 (12.3%) eyes and the six month, one, three, five and nine year observed rates of PCO were 2.3%, 4.4%, 19.7%, 34.0% and 46.9% respectively. Different PCO profiles were observed between IOL materials and the identified risk factors that increased the risk of developing PCO included hydrophilic IOL material, axial length >26 mm, the presence of high myopia and implantation of lower IOL powers and previous vitrectomy surgery, along with younger age and female gender.; Conclusions: Many factors influence the development of PCO relating to the patient, the eye, the lens and the surgery. Some factors are modifiable such as IOL material, therefore the opportunity exists to attempt to reduce PCO rates, benefitting patients and the UK NHS. (© 2022. The Author(s), under exclusive licence to The Royal College of Ophthalmologists.)

Access or request full text: https://libkey.io/10.1038/s41433-022-02204-1

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36002508&custid=ns0234</u> 46

10. Severe mental illness and ophthalmic health: A linked administrative data study

Item Type: Journal Article

Authors: Ferry, Finola; Rosato, Michael and Leavey, Gerard

Publication Date: 2023

Journal: PloS One 18(6), pp. e0286860

Abstract: Background: While evidence has emerged highlighting the potential benefits of the eye as a window to the central nervous system, research on severe mental illness (SMI) and eye health is rare.; Aims: We examine the association of SMI with a range of ophthalmic health outcomes, and whether any relationship is modified by age.; Methods: We used linked administrative data from general practitioner (GP), hospital and ophthalmic records to examine receipt of any Health and Social Care (HSC) eye-test; and (based on eligibility recorded for a sight test) any glaucoma, any diabetes, and any blindness among the Northern Ireland (NI) hospital population between January 2015 and November 2019 (N = 798,564).; Results: When compared with non-SMI patients, those with SMI recorded a higher prevalence of having had a sight test, diabetes, and blindness. In fully adjusted logistic regression models, higher likelihood of an eye-test and diabetes (OR = 1.71: 95%CI = 1.63, 1.79 and OR = 1.29: 1.19, 1.40 respectively); and lower likelihood of glaucoma remained (OR = 0.69: 0.53, 0.90). Amongst persons with SMI there was evidence that the likelihood of having had an eye-test was lower in the older age-groups.; Conclusion: Our study provides new evidence on ophthalmic health inequalities associated with SMI. While the study has immediate relevance to its NI context, we believe it is generalizable to wider UK health concerns. We emphasize the need for more research of this type, using large linkable electronic administrative databases to further our understanding of both health inequalities associated with SMI and poor eye health, and health outcomes in general.; Competing Interests: The authors have declared that no competing interests exist. (Copyright: © 2023 Ferry et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.)

Access or request full text: https://libkey.io/10.1371/journal.pone.0286860

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=37285337&custid=ns0234</u> 46

11. Burden of Glaucoma in the United Kingdom: A Multicenter Analysis of United Kingdom Glaucoma Services

Item Type: Journal Article

Authors: Fu, Dun Jack; Ademisoye, Ebenezer; Shih, Vanessa; McNaught, Andrew I. and Khawaja, Anthony P.

Publication Date: 2023

Journal: Ophthalmology.Glaucoma 6(1), pp. 106-115

Abstract: Objective: To determine the spectrum of glaucoma-associated health care resource utilization among outpatients attending National Health Service (NHS) hospital glaucoma clinics and the costs of managing glaucoma in this setting.; Design: Retrospective observational cohort study using electronic medical record data.; Subjects:

www.eastcheshirenhslibrary.net

Facilitating evidence-based decision making

Patients aged ≥ 18 years attending 5 NHS glaucoma clinics in the United Kingdom (2013–2018) with ≥ 12 months of continuous electronic medical record data.; Methods: Deidentified Medisoft Ophthalmology electronic medical record data (January 2013–December 2018) from 43 742 eligible patients were categorized by year of clinic visit. Extracted information included patient demographics, glaucoma diagnoses, topical glaucoma medication prescription start/stop dates, types/numbers of glaucoma clinic visits, glaucoma investigations (visual acuity, intraocular pressure, visual field, and OCT), and glaucoma procedures received over 12 months after the first ("index") visit of the specified year. Direct glaucoma-related health care costs (clinic visits, investigations, procedures, and ongoing glaucoma medication initiated in the clinic) were estimated from event volumes and unit costs (UK national tariffs) and expressed from the direct-payer perspective.; Main Outcome Measures: Glaucoma diagnoses and topical glaucoma medication use at the index clinic visit; numbers of glaucoma clinic visits, investigations and procedures; and glaucoma-related health care costs over 12 months postindex.; Results: For the 2016 cohort (n = 21 719), the estimated average total cost of NHS-provided glaucoma care over 12 months was £405 per patient (medical staff services £209, glaucoma investigations £126, glaucoma medication £40, glaucoma procedures £26). Among this cohort, 40.8% had ocular hypertension/suspected glaucoma, 70% had 0-to-mild visual field impairment, and 14% had undergone a glaucoma procedure. Over 12 months, patients received (mean) 2.0 glaucoma clinic visits and 1.5 visual field tests, and 7% underwent glaucoma procedure(s). Results were similar for the other years examined.; Conclusions: Cost estimates for managing patients with glaucoma in the UK are required for effective service planning. Appreciable proportions of patients managed in NHS glaucoma clinics may be considered at low risk of blindness (glaucoma suspects and those with ocular hypertension with mild visual field loss) and may be more appropriately managed with alternative, more affordable models of care. (Copyright © 2022 American Academy of Ophthalmology. Published by Elsevier Inc. All rights reserved.)

Access or request full text: https://libkey.io/10.1016/j.ogla.2022.08.007

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=35973529&custid=ns0234</u> 46

12. Management of Vernal Keratoconjunctivitis in Children in the United Kingdom: A Review of the Literature and Current Best Practice Across Six Large United Kingdom Centers

Item Type: Journal Article

Authors: Ghauri, Abdul-Jabbar; Biswas, Susmito; Manzouri, Bita; Barua, Ankur; Sharma, Vibha; Hoole, Janice and Dahlmann-Noor, Annegret

Publication Date: 2023

Journal: Journal of Pediatric Ophthalmology and Strabismus 60(1), pp. 6-17

Abstract: Vernal keratoconjunctivitis (VKC) is a form of ocular allergy primarily affecting children. Considered a rare disease in Europe, its prevalence varies by geographic region and is poorly studied in the United Kingdom. There is considerable national variation in the management of VKC within the United Kingdom, risking misdiagnosis and delays to treatment for some children. This can significantly impact their quality of life, with the potential for lasting negative consequences. Based on discussions between experienced clinicians from six large centers across the United Kingdom, this article describes best practice recommendations for United Kingdom settings, including principles for diagnosis, referral, initial and long-term management, and supportive care. Recommendations include guidance on referral timing, which should depend on VKC severity, and a stepwise approach to treatment. Joint management by primary care and secondary care is recommended and the importance of supportive care, including emotional support and outreach to schools, is highlighted. Because frequent flareups are common in VKC, it is essential that families have access to the information they need to manage the disease and routes to access rapid care if needed. A thorough understanding of the nature of VKC, its triggers, and how best to manage it, by both patients and their families, is critical to ensuring appropriate management and to improving patient outcomes. J Pediatr Ophthalmol Strabismus . 2023;60(1):6-17.] .

Access or request full text: https://libkey.io/10.3928/01913913-20220328-01

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=35611818&custid=ns0234</u> 46

13. Diabetic retinopathy progression in patients under monitoring for treatment or vision loss: external validation and update of a multivariable prediction model

Item Type: Journal Article

Authors: Haider, Sajjad;Adderley, Nicola;Tallouzi, Mohammad O.;Sadiq, Salman Naveed;Steel, David H.;Chavan, Randhir;Sheikh, Ijaz;Nirantharakumar, Krishnarajah and Snell, Kym I. E.

Publication Date: 2023

Journal: BMJ Open 13(4), pp. e073015

Abstract: Introduction: The number of people with diabetes mellitus is increasing globally and consequently so too is diabetic retinopathy (DR). Most patients with diabetes are monitored through the diabetic eye screening programme (DESP) until they have signs of retinopathy and these changes progress, requiring referral into hospital eye services (HES). Here, they continue to be monitored until they require treatment. Due to current pressures on HES, delays can occur, leading to harm. There is a need to triage patients based on their individual risk. At present, patients are stratified according to retinopathy stage alone, yet other risk factors like glycated haemoglobin (HbA1c) may be useful. Therefore, a prediction model that combines multiple prognostic factors to predict progression will be useful for triage in this setting to improve care. We previously developed a Diabetic Retinopathy Progression model to Treatment or Vision Loss (DRPTVL-UK) using a large primary care database. The aim of the present study is to externally validate the DRPTVL-UK model in a secondary care setting, specifically in a population under care by HES. This study will also provide an opportunity to update the model by considering additional predictors not previously available.; Methods and Analysis: We will use a retrospective cohort of 2400 patients with diabetes aged 12 years and over, referred from DESP to the NHS hospital trusts with referable DR between 2013 and 2016, with follow-up information recorded until December 2021. We will evaluate the external validity of the DRPTVL-UK model using measures of discrimination, calibration and net benefit. In addition, consensus meetings will be held to agree on acceptable risk thresholds for triage within the HES system.; Ethics and Dissemination: This study was approved by REC (ref 22/SC/0425, 05/12/2022, Hampshire A Research Ethics Committee). The results of the study will be published in a peer-reviewed journal, presented at clinical conferences.; Trial Registration Number: ISRCTN 10956293.; Competing Interests: Competing interests: None declared. (© Author(s) (or their employer(s)) 2023. Reuse permitted under CC BY. Published by BMJ.)

Access or request full text: https://libkey.io/10.1136/bmjopen-2023-073015

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=37012014&custid=ns0234</u> 46

14. A rapid review of evidence relating to service use, experiences, and support needs of adults from minority ethnic communities along the eyecare pathway in the United Kingdom

Item Type: Journal Article

Authors: Heinze, Nikki; Jones, Lee and Makwana, Bhavini

Publication Date: 2023

Abstract: Background: There is growing awareness of the health inequalities experienced by minority ethnic communities, who make up an increasing proportion of the United Kingdom (UK) population and have been found to be at increased risk of visual impairment (V.I.). V.I. impacts on a wide range of life domains including employment, social functioning and activities of daily living. Considering existing health inequalities, the increased risk of V.I. and its wide-ranging impact, it is important to understand the experiences of adults from minority ethnic communities living with V.I. in the UK.; Methods: A rapid evidence review of academic and gray literature published since 2005 and in English was performed. A search of AMED, CINAHL Plus and MEDLINE via EBSCOhost identified 969 articles. Articles were included in the review if they reported findings relating to the UK-context, to adults from minority ethnic communities living with V.I., and to experiences of V.I. and the eyecare pathway.; Results: A total of 11 academic articles and 4 charity reports presented findings relating to perceptions of V.I. and eye disease (n = 3), access to services and service use (n = 5), impact of interventions (n = 7), the wider impact of V.I. (n = 2), and registration status (n = 1). Much of the literature focused on primary eyecare resulting in a comprehensive list of barriers and recommendations to increase eye tests. Less research addressed experiences and use of services further along the eyecare pathway although use of services may be low. Overall, the research on the experiences of adults with V.I. from minority ethnic communities in the UK remains anecdotal, outdated or unavailable. There are substantial gaps in the evidence relating to the wider impact of V.I., the impact of perceptions of V.I., and the use of services beyond primary eyecare.; Conclusions: This review summarizes our current knowledge of the experiences of adults from minority ethnic communities living with V.I. in the UK and highlights substantial gaps in the evidence. The findings provide practical implications for practitioners and researchers committed to addressing health inequalities in the field of eyecare in the UK.; Competing Interests: NH and LJ were employed by BRAVO VICTOR. BM is the chair person of BAME Vision. (Copyright © 2023 Heinze, Jones and Makwana.)

Access or request full text: https://libkey.io/10.3389/fpubh.2023.1119540

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36926177&custid=ns0234</u> 46

15. Inequities and Research Gaps in Ophthalmology: A Scoping Review

Item Type: Journal Article

Authors: Hemmerich, Christian; Jones, Garrett; Staggs, Jordan; Anderson, Reece M.; Bacani, Rigel and Vassar, Matt

Publication Date: 2023

Journal: JAMA Ophthalmology 141(1), pp. 63-70

Access or request full text: https://libkey.io/10.1001/jamaophthalmol.2022.5237

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=161417178&custid=ns0234</u> 46

16. Educational attainment and trajectories at key stages of schooling for children with amblyopia compared to those without eye conditions: Findings from the Millennium Cohort Study

Item Type: Journal Article

Authors: Horvat-Gitsels, Lisanne; Cortina-Borja, Mario and Rahi, Jugnoo Sangeeta

Journal: PloS One 18(3), pp. e0283786

Abstract: Background: Amblyopia is a neurodevelopmental condition resulting in reduced vision for which whole population child vision screening is undertaken. Cross-sectional studies have established an association between amblyopia and lower academic self-concept, slower reading speed. No difference has been found in educational performance in adolescence whilst there are mixed associations with educational attainment in adults. Educational trajectories and intentions have not been studied previously. We analyse if those treated for amblyopia have different educational performance and trajectories for core subjects during statutory schooling, or subsequent higher education (university) intentions than their peers without eye conditions.; Methods and Findings: Data from the Millennium Cohort Study of children born in the United Kingdom in 2000-01 and followed-up to age 17 years (n = 9989). Using a validated approach drawing on parental self-report on eye conditions and treatment coded by clinical reviewers, participants were grouped into mutually exclusive categories: no eye conditions, strabismus alone, refractive amblyopia, strabismic/mixed (refractive plus strabismic) amblyopia. The outcomes were levels and trajectories of passing English, Maths, Science at ages 7-16 years, passing national exams at age 16, and intentions at ages 14-17 to pursue higher (university) education. Adjusted analyses showed that amblyopia status was not associated with performance in English, Maths, and Science at any key stage, attainment in national exams, or intending to go to university. Similarly, the age-related trajectories of performance in core subjects and higher education intentions did not differ between the groups. There were no significant differences in main reason for having or not having university intentions.; Conclusions: We found no associations between a history of amblyopia and either adverse performance or age-related attainment trajectories in core subjects during key stages of statutory schooling as well as the absence of an association with intentions for higher education. These results should be reassuring to affected children and young people, and their families, teachers and physicians.; Competing Interests: The authors have declared that no competing interests exist. (Copyright: © 2023 Horvat-Gitsels et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.)

Access or request full text: <u>https://libkey.io/10.1371/journal.pone.0283786</u>

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36996127&custid=ns0234</u> 46

17. Development of prediction models to estimate extubation time and midterm recovery time of ophthalmic patients undergoing general anesthesia: a cross-sectional study

Item Type: Journal Article

Authors: Huang, Xuan; Tan, Ronghui; Lin, Jian-Wei; Li, Gonghui and Xie, Jianying

Publication Date: 2023

Journal: BMC Anesthesiology 23(1), pp. 1-17

Abstract: Background: To develop prediction models for extubation time and midterm recovery time estimation in ophthalmic patients who underwent general anesthesia. Methods: Totally 1824 ophthalmic patients who received general anesthesia at Joint Shantou International Eye Center were included. They were divided into a training dataset of 1276 samples, a validation dataset of 274 samples and a check dataset of 274 samples. Up to 85 to 87 related factors were collected for extubation time and midterm recovery time analysis, respectively, including patient factors, anesthetic factors, surgery factors and laboratory examination results. First, multiple linear regression was used for predictor selection. Second, different methods were used to develop predictive models for extubation time and midterm recovery time respectively. Finally, the models' generalization abilities were evaluated using a same check dataset with MSE, RMSE, MAE, MAPE, R-Squared and CCC. Results: The fuzzy neural network achieved the

highest R-Squared of 0.956 for extubation time prediction and 0.885 for midterm recovery time, and the RMSE value was 6.637 and 9.285, respectively. Conclusion: The fuzzy neural network developed in this study had good generalization performance in predicting both extubation time and midterm recovery time of ophthalmic patients undergoing general anesthesia. Trial registration: This study is prospectively registered in the Chinese Clinical Trial Registry, registration number: CHiCRT2000036416, registration date: August 23, 2020.

Access or request full text: https://libkey.io/10.1186/s12871-023-02021-3

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=162514998&custid=ns0234</u> 46

18. Distance spectacle-wearing habits in older patients in England

Item Type: Journal Article

Authors: Hughes, Amy R. and Elliott, David B.

Publication Date: 2023

Journal: Ophthalmic & Physiological Optics : The Journal of the British College of Ophthalmic Opticians (Optometrists)

Abstract: Purpose: To report the proportion of older people in England who wear distance spectacles full time, part time and rarely, and to investigate factors that influence how much the distance vision (DV) correction is worn.; Methods: A two-part questionnaire investigating the spectacle-wearing habits of older people was developed and completed by 322 participants (age 72 years ±7.7, range 60-94). A subcohort of 209 DV correction wearers with a mean spherical equivalent (MSE) of <±4.00DS was selected for a logistic regression to investigate which factors influence how much the DV correction is used.; Results: In total, 43% of emmetropic, and 55% of pseudophakic, DV spectacle wearers wear their correction full time. Lens type, MSE and the age that participants first wore a DV correction significantly predicted DV correction wearing habit (adjusted R 2 = 0.36), with lens type being the strongest predicting factor and progressive users wearing their spectacles 37% more than those using single vision lenses.; Conclusions: Many patients appear to consider convenience more important than being spectacle independent at distance, with lens type the most significant influencing factor of how much those with low/moderate refractive error wear their distance correction. Many emmetropes and pseudophakes choose to wear their progressive or bifocal spectacles full time, and the emmetropia provided by cataract surgery does not provide independence from full-time spectacle wear for many patients. The optometrist has a key role in discussing both choice of spectacle lens correction and the refractive outcome options of cataract surgery with patients. (© 2023 The Authors. Ophthalmic and Physiological Optics published by John Wiley & Sons Ltd on behalf of College of Optometrists.)

Access or request full text: https://libkey.io/10.1111/opo.13172

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=37272313&custid=ns0234</u> 46

19. Ocular manifestations of COVID-19 in pediatric patients

Item Type: Journal Article

Authors: Ichhpujani, Parul;Singh, Rohan Bir;Dhillon, Hennaav Kaur and Kumar, Suresh

Publication Date: 2023

Journal: Therapeutic Advances in Ophthalmology, pp. 1-7

Abstract: The coronavirus disease–19 (COVID-19) infection may remain asymptomatic or may have several different presentations. Although this disease primarily affects the respiratory system, systemic manifestations affecting the gastrointestinal, cardiovascular, neurological, otorhinolaryngologic, and ophthalmic systems have been reported. Ophthalmic signs may be the first and only sign of COVID-19 infection in children. In the current narrative review, we report the ophthalmic manifestations of COVID-19 in the pediatric age cohort. We performed a comprehensive literature search for the publications on ophthalmic manifestations of COVID-19 in children between 1 March 2020 and 1 January 2022 and compiled the ophthalmic manifestation in children and can develop at any stage of the disease. Ophthalmic manifestations are seen more commonly in children with severe systemic disease. Long-term and indirect consequence of the COVID-19 disease is the rise of myopia among children. Ophthalmic signs may be the first and only sign of COVID-19 disease is the rise of myopia among children. We performed and the posterving all children with COVID-19 closely for ophthalmic signs.

Access or request full text: https://libkey.io/10.1177/25158414221149916

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=162418092&custid=ns0234</u> 46

20. When Pediatric Headaches Are Not Benign—Eye Findings

Item Type: Journal Article

Authors: Karimaghaei, Sam and Rook, Brita S.

Publication Date: 2023

Journal: Children 10(2), pp. 372

Abstract: Headache is the most common neurologic complaint that presents to the pediatrician. While most headaches are benign in nature, patients must be carefully evaluated to rule out life- or vision-threatening causes. Non-benign etiologies of headache may exhibit ophthalmologic signs and symptoms that can help narrow the differential diagnosis. It is also important for physicians to know in what situations appropriate ophthalmologic evaluation is necessary, such as evaluating for papilledema in the setting of elevated intracranial pressure. In this article we discuss life- and/or vision-threatening etiologies of headache, including infection, autoimmune disease, cerebrovascular pathologies, hydrocephalus, intracranial neoplasia, and idiopathic intracranial hypertension, and their associated ophthalmologic manifestations. Due to less familiarity of the disease amongst primary care providers, we discuss pediatric idiopathic intracranial hypertension in more comprehensive detail.

Access or request full text: https://libkey.io/10.3390/children10020372

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=162116119&custid=ns0234</u> 46

21. Image analysis ideal for Al in ophthalmology

Item Type: Journal Article

Authors: Lindstrom, Richard L.

Publication Date: 2023

Journal: Ocular Surgery News 41(7), pp. 3

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=163154202&custid=ns0234</u> 46

22. Comparison of infliximab with adalimumab for the treatment of non-infectious uveitis: a systematic review and meta-analysis

Item Type: Journal Article

Authors: Liu, Weishai; Bai, Dan and Kou, Lieling

Publication Date: 2023

Journal: BMC Ophthalmology 23(1), pp. 1-10

Access or request full text: https://libkey.io/10.1186/s12886-023-02987-1

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=164025638&custid=ns0234</u> 46

23. Are wearable electronic vision enhancement systems (wEVES) beneficial for people with agerelated macular degeneration? A scoping review

Item Type: Journal Article

Authors: Miller, Andrew; Crossland, Michael D.; Macnaughton, Jane and Latham, Keziah

Publication Date: 2023

Journal: Ophthalmic & Physiological Optics : The Journal of the British College of Ophthalmic Opticians (Optometrists) 43(4), pp. 680-701

Abstract: Introduction: Age-related macular degeneration (AMD) is the most common cause of irreversible visual impairment in the United Kingdom. It has a wide-ranging detrimental impact on daily living, including impairment of functional ability and quality of life. Assistive technology designed to overcome this impairment includes wearable electronic vision enhancement systems (wEVES). This scoping review assesses the usefulness of these systems for people with AMD.; Methods: Four databases (Cumulative Index to Nursing and Allied Health Literature, PubMed, Web of Science and Cochrane CENTRAL) were searched to identify papers that investigated image enhancement with a head-mounted electronic device on a sample population that included people with AMD.; Results: Thirty-two papers were included: 18 studied the clinical and functional benefits of wEVES, 11 investigated use and usability and 3 discussed sickness and adverse effects.; Conclusions: Wearable electronic vision enhancement systems provide hands-free magnification and image enhancement producing significant improvements in acuity, contrast sensitivity and aspects of laboratory-simulated daily activity. Adverse effects were infrequent, minor and spontaneously resolved with the removal of the device. However, when symptoms arose, they sometimes persisted with continued device usage. There are multi-factorial influences and a diversity of user opinions on promotors to successful device use. These factors are not exclusively driven by visual improvement and incorporate other issues including device weight, ease of use and inconspicuous design. There is insufficient evidence of any cost-benefit analysis for wEVES. However, it has been shown that a user's decision to make a purchase evolves over time, with their estimates of cost falling below the retail price of the devices. Additional research is needed to understand the specific and distinct benefits of wEVES for people with AMD. Further patient-centred research should assess the benefits of wEVES in user-led activities when directly compared with alternative coping strategies, allowing professionals and users to make better prescribing and purchasing decisions. (© 2023 The Authors. Ophthalmic and Physiological Optics

published by John Wiley & Sons Ltd on behalf of College of Optometrists.)

Access or request full text: https://libkey.io/10.1111/opo.13117

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36876427&custid=ns0234</u> 46

24. Paediatric eye and vision research participation experiences: a systematic review

Item Type: Journal Article

Authors: Miller, Jacqueline;Curtis-Tyler, Katherine;Maden, Michelle;Dahlmann-Noor, Annegret and Chudleigh, Jane

Publication Date: 2023

Journal: Trials 24(1), pp. 1-15

Access or request full text: https://libkey.io/10.1186/s13063-022-07021-1

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=161550142&custid=ns0234</u> 46

25. Acute unilateral isolated ptosis as a complication of sinusitis in a post-COVID-19 patient

Item Type: Journal Article

Authors: Mirza, Mohammed Osman; Mathai, Anup; Owens, Alan and Massey, Glenn

Publication Date: 2023

Journal: BMJ Case Reports 16(5)

Abstract: A fit and well young man presented to our emergency department in the UK. On examination, he had an isolated left-sided ptosis; he had a 3-day history of frontal headache which was worse on head movement. He lacked any clinical signs of cranial, orbital, or preseptal infection, and his eye movements were normal. Ten days before presentation, he tested positive for SARS-CoV-2. Inflammatory markers were moderately raised, and CT of the head did not reveal any vascular abnormality or intracranial lesion. Imaging revealed opacification, predominantly in the left facial sinuses, keeping with sinusitis. He was discharged the same evening with oral antibiotics and made a full recovery over the next few days. He remained well at 6-month follow-up. The authors convey their findings to raise awareness of a rare complication of sinusitis and to demonstrate the utility of CT imaging for diagnosing sinusitis and ruling out severe pathology.; Competing Interests: Competing interests: None declared. (© BMJ Publishing Group Limited 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.)

Access or request full text: https://libkey.io/10.1136/bcr-2023-254971

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=37130646&custid=ns0234</u> 46

26. Expansion of patient eligibility for virtual glaucoma clinics: a long-term strategy to increase the capacity of high-quality glaucoma care

Item Type: Journal Article

Authors: Nikita, Eleni;Gazzard, Gus;Sim, Dawn A.;Fasolo, Sandro;Kortum, Karsten and Jayaram, Hari

Publication Date: 2023

Journal: The British Journal of Ophthalmology 107(1), pp. 43-48

Abstract: Aims: The virtual glaucoma clinic (VGC) is a well-established diagnostic pathway for delivery of glaucoma care. Current UK national guidance recommends VGCs for patients with ocular hypertension, glaucoma suspects or early glaucoma. This study evaluates whether expanded eligibility criteria, including other glaucoma phenotypes and disease stages, can deliver safe and effective care with a positive patient experience.; Methods: Records of over 8000 patients were reviewed in order to determine suitability for VGC attendance using expanded eligibility criteria. Patients with three prior consecutive visits within the glaucoma service were included. Follow-up interval, clinic type, visual acuity (VA), intraocular pressure (IOP) and visual field performance were recorded. Patient satisfaction was recorded for a sample of 118 patients.; Results: 2017 patients over 31 months were included. Two-thirds of eyes had ocular comorbidities, a fifth of eyes had undergone prior cataract surgery and 10% of eyes had undergone a prior laser treatment for glaucoma. After three visits, 32% of patients remained in the VGC, 42% were seen in face-to-face clinics and 25% were discharged. There were no clinically significant changes in VA, IOP and visual field performance during follow-up. 72% of patients expressed a preference to continue their care within VGCs.; Conclusions: This study demonstrates that VGCs with expanded patient eligibility criteria can deliver high-quality glaucoma care that is safe, effective and with high levels of patient satisfaction. This approach provides a long-term solution to adapt delivery of glaucoma care to our expanding and ageing population.; Competing Interests: Competing interests: None declared. (© Author(s) (or their employer(s)) 2023. No commercial re-use. See rights and permissions. Published by BMJ.)

Access or request full text: https://libkey.io/10.1136/bjophthalmol-2020-318556

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=34321213&custid=ns0234</u> 46

27. Long-Term Clinical and Safety Outcomes of Canaloplasty Performed across All Grades of Glaucoma Severity

Item Type: Journal Article

Authors: Patel, Shamil and Reiss, George

Publication Date: 2023

Journal: Journal of Ophthalmology, pp. 1-8

Abstract: Purpose. To investigate the clinical effectiveness of canaloplasty performed with an ab interno technique using the iTrack microcatheter (Nova Eye Medical) in patients with mild-moderate glaucoma as compared to severe glaucoma. Methods. This is a retrospective single-center case series. Patients were preoperatively categorized as mild/moderate vs. severe glaucoma assessed using the mean deviation (MD) score and controlled group (baseline intraocular pressure (IOP) \leq 18 mmHg) vs. uncontrolled group (>18 mmHg). All patients with glaucoma were eligible for recruitment except those who had undergone previous glaucoma surgery (with the exception of selective laser trabeculoplasty or SLT). Patients underwent canaloplasty via an ab interno surgical technique with or without phacoemulsification and were monitored for IOP, glaucoma medication usage, and surgical complications. Results. In total, 72 eyes were followed for 3.4 ± 0.5 years. Mean pre-op IOP (mmHg) was 19.3 ± 7.7 in the standalone group (n = 63) (p = 0.38). At the last follow-up, mean IOP reduced by 36% to 12.4 ± 4.4 (p = 0.02) in the standalone group and by 26% to 13.7 ± 4.8 in the combined group (p < 0.001). Mean pre-op IOP (mmHg) was 18.6 ± 5.2 in the severe group (n = 24) and 18.6 ± 6.2 in the mild-moderate group (n = 48) (p = 0.48).

Mean IOP was 14.1 ± 6.3 (-24%; p < 0.001) and 13.3 ± 3.7 (-29%; p < 0.001), respectively, at the last follow-up. Mean glaucoma medication usage decreased from 2.5 ± 0.9 to 2.1 ± 0.9 (-15%; p = 0.083) in the severe group and 2.3 ± 1.0 to 1.4 ± 1.3 (-40%; p < 0.001) in the mild/moderate group. There was one localized Descemet's membrane detachment in the moderate group. Conclusion. iTrack canaloplasty achieved a statistically significant IOP reduction in mild-moderate and severe eyes and was found to be an effective option for reducing IOP and medications in patients with mild-moderate primary open-angle glaucoma (POAG). In severe eyes, it has reduced IOP while the medications remained stable.

Access or request full text: https://libkey.io/10.1155/2023/5625990

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=163659753&custid=ns0234</u> 46

28. Transient Light Sensitivity Syndrome (TLSS) Incidence Following Femtosecond LASIK for Myopic and Hyperopic Eyes and Femtosecond SMILE for Myopic Eyes

Item Type: Journal Article

Authors: Reinstein, Dan Z.; Potter, Joseph G.; Gupta, Ruchi; Yammouni, Robert and Archer, Timothy J.

Publication Date: 2023

Journal: Journal of Refractive Surgery (Thorofare, N.J.: 1995) 39(6), pp. 366-373

Abstract: Purpose: To evaluate and compare the incidence of transient light sensitivity syndrome (TLSS) after myopic laser in situ keratomileusis (LASIK), hyperopic LASIK, and myopic small incision lenticule extraction (SMILE).; Methods: A retrospective analysis was performed of consecutive LASIK and myopic SMILE cases, performed with the VisuMax femtosecond laser and MEL 80 or MEL 90 excimer laser (both Carl Zeiss Meditec AG) between January 2010 and February 2021 at London Vision Clinic, London, United Kingdom. A chart review was performed to find cases of clinically significant TLSS, identified as patients prescribed anti-inflammatory medications between 2 weeks and 6 months after surgery to manage photophobia. The incidence of TLSS was calculated for three groups: myopic SMILE, myopic LASIK, and hyperopic LASIK. The incidence of TLSS was then calculated for three subgroups within each treatment type based on spherical equivalent refraction treated. For myopic SMILE and myopic LASIK, it was 0.00 to -4.00 diopters (D) (low), -4.01 to -8.00 D (moderate), and -8.01 to -14.00 D (high). For hyperopic LASIK, it was 0.00 to +2.00 D (low), +2.01 to +4.00 D (moderate), and +4.01 to +6.50 D (high).; Results: The range of treatment for myopia was similar between the LASIK and SMILE groups. The incidence of TLSS was 1.2% for the myopic SMILE group, 5.3% for the myopic LASIK group, and 9.0% for the hyperopic LASIK group. The difference was statistically significant between all groups (P.05). Similarly, for hyperopic LASIK, the incidence was similar for low (9.4%), moderate (8.7%), and high (8.7%) hyperopia (P > .05). In contrast, for myopic LASIK, the incidence of TLSS was "dose-dependent" on refractive error treated, with an incidence of 4.7% for low, 5.8% for moderate, and 8.1% for high myopia (P < .001).; Conclusions: The incidence of TLSS was higher after myopic LASIK than after myopic SMILE, higher after hyperopic than myopic LASIK, and "dose-dependent" for myopic LASIK but did not vary by correction in myopic SMILE. This is the first report describing the phenomenon of late TLSS occurring between 8 weeks and 6 months after surgery, J Refract Surg . 2023:39(6):366-373.].

Access or request full text: https://libkey.io/10.3928/1081597X-20230512-02

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=37306206&custid=ns0234</u> 46

29. Visual Performance of Eyes with Residual Refractive Errors after Implantation of an Extended Vision Intraocular Lens

Item Type: Journal Article

Authors: Rementería-Capelo, Laureano A.;Contreras, Inés;Morán, Aida;Lorente-Hevia, Pilar;Mariñas, Laura and Ruiz-Alcocer, Javier

Publication Date: 2023

Journal: Journal of Ophthalmology, pp. 1-5

Abstract: Background. To analyze the tolerance on distance vision of different combined residual astigmatic situations in patients implanted with a novel wavefront shaping extended depth of focus (EDoF) intraocular lens (IOL). Methods. The study included patients implanted with the Acrysof® IQ Vivity® IOL. Uncorrected (UDVA) and corrected distance visual acuity (CDVA) were measured three months after surgery, considering CDVA as the reference situation of the study. Distance VA was also measured in different refractive situations: (A) with 0.50 diopters (D) of positive (myopization) and negative (hyperopization) defocus and (B) with a residual mixed astigmatic refraction induced by adding a combination of -0.25 D spherical and 0.50 D cylindrical lenses placed in vertical (against the rule-ATR), oblique, and horizontal (with the rule-WTR) positions. Results. The study included 30 eyes of 30 patients. UDVA and CDVA were -0.04 ± 0.05 and -0.05 ± 0.05 logMAR, respectively. VA values with +0.50 D and -0.50 D of defocus were 0.01 \pm 0.06 and 0.00 \pm 0.04 logMAR, respectively. VA was better with distance correction (p < 0.001) and no differences were found between the myopic and the hyperopic situations (p = 0.09). Distance VA for the ATR, oblique, and WTR astigmatic situations was 0.01 ± 0.05, 0.01 ± 0.06, and 0.01 ± 0.04 logMAR, respectively. VA was better for the reference situation (p < 0.001) and no differences were found among the three astigmatic situations (p = 0.21). Conclusions. Low residual defocus and mixed astigmatic errors, regardless of its orientation, seem to be tolerated by patients implanted with the studied EDoF IOL. This trial is registered with NCT05392998. Registered 26 May 2022-Retrospectively registered.

Access or request full text: https://libkey.io/10.1155/2023/7701390

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=163554605&custid=ns0234</u> 46

30. Iridotomy to slow progression of visual field loss in angle-closure glaucoma

Item Type: Journal Article

Authors: Rouse, Benjamin;Le, Jimmy T. and Gazzard, Gus

Publication Date: 2023

Journal: The Cochrane Database of Systematic Reviews 1, pp. CD012270

Abstract: Background: Primary angle-closure glaucoma is a type of glaucoma associated with a physically obstructed anterior chamber angle. For example, contact between the iris and lens at the pupillary margin creates a pupillary block that increases resistance to aqueous outflow. Obstruction of the anterior chamber angle blocks drainage of fluids (aqueous humor) within the eye and may raise intraocular pressure (IOP). Elevated IOP is associated with glaucomatous optic nerve damage and visual field loss. Laser peripheral iridotomy ('iridotomy') is a procedure to eliminate pupillary block by allowing aqueous humor to pass directly from the posterior to anterior chamber, which is achieved by creating a hole in the iris using laser. Iridotomy is used to treat patients with primary angle-closure glaucoma, patients with primary angle-closure (narrow angles and no signs of glaucomatous optic neuropathy), and patients who are primary angle-closure suspects (patients with reversible obstruction). However, the effectiveness of iridotomy on slowing progression of visual field loss is uncertain.; Objectives: To assess the effects of iridotomy compared with no iridotomy for primary angle-closure glaucoma, primary angle-closure, and primary angle-closure

suspect.; Search Methods: We searched the Cochrane Central Register of Controlled Trials (CENTRAL; 2021, Issue 10), which contains the Cochrane Eyes and Vision Trials Register; MEDLINE Ovid; Embase Ovid; PubMed; LILACS; ClinicalTrials.gov; and the WHO ICTRP. The date of the most recent search was 10 October 2021.; Selection Criteria: Randomized or quasi-randomized controlled trials that compared iridotomy with no iridotomy in primary angleclosure suspects, people with primary angle-closure, or people with primary angle-closure glaucoma in one or both eyes were eligible.; Data Collection and Analysis: We used standard Cochrane methodology and assessed the certainty of the body of evidence for prespecified outcomes using the GRADE approach.; Main Results: We identified four studies (3086 eyes of 1543 participants) that compared iridotomy with no iridotomy in participants (range of mean age 59.6 to 62.9 years) who were primary angle-closure suspects from China, Singapore, or the UK. Study investigators randomized one eye of each participant to iridotomy and the other to no iridotomy. Two studies provided long-term (five or more years) results. We judged the certainty of the evidence as moderate to low across the prespecified outcomes, downgrading for high risk of bias (e.g. performance and detection biases) and imprecision of results. Meta-analyses of data from two studies suggest that iridotomy probably results in little to no difference in IOP compared with no iridotomy at one year (mean difference (MD) 0.04 mm Hg, 95% confidence interval (CI) -0.17 to 0.24; I 2 = 65%; 2598 eyes of 1299 participants; moderate certainty evidence) and five years (MD 0.12 mm Hg, 95% CI -0.11 to 0.35; I 2 = 0%; 2016 eyes of 1008 participants), and in best-corrected visual acuity measured as logMAR at one year (MD 0.00, 95% CI -0.01 to 0.01; I 2 = 69%; 2596 eyes of 1298 participants; moderate certainty evidence) and five years (MD 0.01, 95% CI -0.01 to 0.03; I 2 = 0%; 2002 eyes of 1001 participants). In terms of gonioscopic findings, eyes treated with iridotomy likely had wider angles in Shaffer grading scale (MD 4.93 units, 95% CI 4.73 to 5.12; I 2 = 59%; 2598 eyes of 1299 participants at one year; MD 5.07, 95% CI 4.78 to 5.36; I 2 = 97%; 2016 eyes of 1008 participants at five years; moderate certainty evidence) and experienced fewer peripheral anterior synechiae (PAS) than eyes that received no iridotomy at five years (risk ratio (RR) 0.41, 95% CI 0.24 to 0.67; I 2 = 28%; 2 studies, 2738 eyes of 1369 participants), but the evidence was less conclusive at one year (RR 0.62, 95% CI 0.25 to 1.54; I 2 = 57%; 3 studies, 2896 eyes of 1448 participants; low certainty evidence). No studies reported data on the proportion of participants with progressive visual field loss during follow-up (the primary outcome of this review), mean number of medications to control IOP, or quality of life outcomes. Low certainty evidence suggests that iridotomy may result in little to no difference in the incidence of acute angle-closure (RR 0.29, 95% CI 0.07 to 1.20; I 2 = 0%; 3 studies, 3006 eyes of 1503 participants). Other ocular adverse events (e.g. eye pain, dry eye, redness of eyes, and ocular discomfort), although rare, were more common in eyes treated with iridotomy than in eyes in the control group. AUTHORS' CONCLUSIONS: We did not find sufficient evidence to draw any meaningful conclusions on the use of iridotomy for the purpose of slowing progression of visual field loss. No study reported on progressive visual field loss, the primary outcome of this review. Although there is moderate certainty evidence that iridotomy results in improved gonioscopic findings, in is unclear if these findings translate to clinically meaningful benefits. (Copyright © 2023 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.)

Access or request full text: https://libkey.io/10.1002/14651858.CD012270.pub3

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36621864&custid=ns0234</u> 46

31. Worsening vision at age 4-5 in England post-COVID: Evidence from a large database of vision screening data

Item Type: Journal Article

Authors: Shah, Rakhee; Edgar, David F. and Evans, Bruce J. W.

Publication Date: 2023

Journal: Ophthalmic & Physiological Optics : The Journal of the British College of Ophthalmic Opticians (Optometrists) 43(3), pp. 454-465

Abstract: Purpose: Myopia prevalence has increased in the UK at age 10-16y, but little is known about younger

www.eastcheshirenhslibrary.net

Facilitating evidence-based decision making

children. We hypothesise that if the 'myopia epidemic' is affecting young children, then there will be increasing rates of bilateral reduced unaided vision (V) at vision screenings of children 4-5 years of age.; Methods: Retrospective anonymised data from computerised vision screening at age 4-5 years were analysed from serial cross-sectional data. Refractive error is not assessed in UK vision screening, so vision was investigated. Data were only included from schools that screened every year from 2015/16 to 2021/22. The criterion used was unaided monocular logMAR (automated letter-by-letter scoring) vision >0.20 in both the right and left eyes, so as to maximise the chances of detecting bilateral, moderate myopia rather than amblyopia.; Results: Anonymised raw data were obtained for 359,634 screening episodes from 2075 schools. Once schools were excluded where data were not available for every year and data were cleaned, the final database comprised 110,076 episodes. The proportion (percentage and 95% CI) failing the criterion from 2015/16 to 2021/22 were 7.6 (7.2-8.0), 8.5 (8.1-8.9), 7.5 (7.1-7.9), 7.8 (7.4-8.2), 8.7 (8.1-9.2), 8.5 (7.9-9.0) and 9.3 (8.8-9.7), respectively. The slope of the regression line showed a trend for increasing rates of reduced bilateral unaided vision, consistent with increasing frequency of myopia (p = 0.06). A decreasing linear trendline was noted for children 'Under Professional Care'.; Conclusions: For children 4-5 years of age, there were signs of reduced vision over the last 7 years in England. Consideration of the most likely causes support the hypothesis of increasing myopia. The increase in screening failures highlights the importance of eye care in this young population. (© 2023 The Authors. Ophthalmic and Physiological Optics published by John Wiley & Sons Ltd on behalf of College of Optometrists.)

Access or request full text: https://libkey.io/10.1111/opo.13112

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36866712&custid=ns0234</u> 46

32. Retrocorneal Scleral Patch Supported Glue: A Technique for Management of Corneal Perforation and Corneoscleral Melt following Pterygium Surgery

Item Type: Journal Article

Authors: Sharma, Ashok; Sharma, Rajan and Nirankari, Verinder S.

Publication Date: Jan ,2023

Journal: Journal of Ophthalmic & Vision Research 18(1), pp. 123-129

Abstract: Purpose: To describe a new method of treatment of corneal perforation with extensive corneoscleral melt. Case Report: A 42-year-old man presented with moderate-sized (3.5 mm) corneal perforation with extensive corneolimbo-scleral ulceration following bare sclera excision of pterygium. No prior use of antimetabolites or postoperative beta radiation noted. We considered retrocorneal sclera patch supported cyanoacrylate application. The sclera was thinned to one-third thickness and a patch (4.5x4.5 mm) was punched. The sclera patch was placed on the iris, behind the corneal perforation, adequately covering it from inside. A minimal amount of adhesive was applied on the retrocorneal sclera patch and margin of corneal perforation. The ulcerating sclera was covered with double layered amniotic membrane. Topical antibiotic, steroid, and cycloplegic drops were instilled thrice daily. Corneal perforation healed and no recurrence occurred during the 18 months' follow-up. Conclusion: Retrocorneal scleral patch supported cyanoacrylate is effective for corneal perforation with corneo-scleral melt.

Access or request full text: https://libkey.io/10.18502/jovr.v18i1.12732

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=162044647&custid=ns0234</u> 46

33. Artificial intelligence and machine learning in ophthalmology: A review

Item Type: Journal Article

Authors: Srivastava, Ojas; Tennant, Matthew; Grewal, Parampal; Rubin, Uriel and Seamone, Mark

Publication Date: 2023

Journal: Indian Journal of Ophthalmology 71(1), pp. 11-17

Access or request full text: https://libkey.io/10.4103/ijo.IJO_1569_22

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=161245658&custid=ns0234</u> 46

34. The Ophthalmic Manifestations of Down Syndrome

Item Type: Journal Article

Authors: Sun, Emily and Kraus, Courtney L.

Publication Date: 2023

Journal: Children 10(2), pp. 341

Abstract: Down Syndrome is one of the most common chromosomal conditions in the world, affecting an estimated 1:400–1:500 births. It is a multisystem genetic disorder but has a wide range of ophthalmic findings. These include strabismus, amblyopia, accommodation defects, refractive error, eyelid abnormalities, nasolacrimal duct obstruction, nystagmus, keratoconus, cataracts, retinal abnormalities, optic nerve abnormalities, and glaucoma. These ophthalmic conditions are more prevalent in children with Down Syndrome than the general pediatric population, and without exception, early identification with thoughtful screening in this patient population can drastically improve prognosis and/or quality of life.

Access or request full text: https://libkey.io/10.3390/children10020341

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=162116088&custid=ns0234</u> 46

35. Temporal trends in the epidemiology of childhood severe visual impairment and blindness in the UK

Item Type: Journal Article

Authors: Teoh, Lucinda J.; Solebo, Ameenat Lola and Rahi, Jugnoo S.

Publication Date: 2023

Journal: The British Journal of Ophthalmology 107(5), pp. 717-724

Abstract: Background/aims: Understanding temporal trends in childhood visual disability is necessary for planning and evaluating clinical services and health policies. We investigate the changing epidemiology of severe visual impairment (SVI) and blindness (BL) in children in the UK in the 21st century.; Methods: Comparative analysis of two national population-based epidemiological studies of incident childhood SVI/BL (ICD-10 definition; visual acuity worse than 1.0 LogMAR in the better eye). We carry out comparative analysis of studies conducted in 2000 and 2015

www.eastcheshirenhslibrary.net

Facilitating evidence-based decision making

using identical methods.; Results: Overall annual and cumulative incidence rates remained broadly stable in 2015 at 0.38 per 10 000 (95% CI 0.34 to 0.41) for 0-15 years old and 5.65 per 10 000 (5.16 to 6.18) by 16 years, respectively, and with annual incidence in infancy (3.52 per 10 000, 3.13 to 3.97) remaining considerably higher than any other age. Mortality among children diagnosed in infancy declined (from 61.4 to 25.6 per 1000), despite an increase (from 77% to 84%, p=0.037) in the overall proportion with significant non-ophthalmic impairments/disorders. The relative contribution of all the main groups of disorders increased over time, most notably cerebral visual impairment (from 50% to 61%). Aetiological factors operating prenatally continued to predominate, with an increased relative contribution of hereditary conditions in all children (from 35% to 57%, p<0.001). The substantially elevated rates for any ethnic minority group and those born preterm were unchanged, with amplification of increased rates associated with low birth weight.; Conclusion: The changing landscape of healthcare and increased survival of affected children, is reflected in increasing clinical complexity and heterogeneity of all-cause SVI/BL alongside declining mortality.; Competing Interests: Competing interests: None declared. (© Author(s) (or their employer(s)) 2023. No commercial re-use. See rights and permissions. Published by BMJ.)

Access or request full text: https://libkey.io/10.1136/bjophthalmol-2021-320119

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=34949577&custid=ns0234</u> 46

36. The Mediterranean Diet and Age-Related Eye Diseases: A Systematic Review

Item Type: Journal Article

Authors: Wu, Yi;Xie, Ye;Yuan, Yixiong;Xiong, Ruilin;Hu, Yuxin;Ning, Kang;Ha, Jason;Wang, Wei;Han, Xiaotong and He, Mingguang

Publication Date: 2023

Journal: Nutrients 15(9), pp. 2043

Abstract: The Mediterranean diet (MD) is a healthy diet pattern that can prevent chronic age-related diseases, especially age-related eye diseases (AREDs) including cataract, glaucoma, age-related macular degeneration (AMD), diabetic retinopathy (DR) and dry eye syndrome (DES). In this study, we systematically reviewed studies in the literature that had reported associations between adherence to the MD and the five above-mentioned AREDs. Randomized controlled trials as well as prospective and retrospective observational studies were included; 1164 studies were identified, of which 1, 2, 9, 2 and 4 studies met our eligibility criteria for cataract, glaucoma, AMD, DR, and DES, respectively. According to these studies, higher MD adherence was associated with reduced risks of incident DR, incident AMD and progression to late AMD, but whether early and neovascular AMD could be alleviated remained to be debated. The results regarding the effects of the MD on DES were mixed, with three studies reporting an associations between MD and decreased severity or incidence of DES, whereas one study reported the opposite. No significant associations were observed between the MD and cataract or glaucoma. Generally, convincing evidence suggested a protective effect of the MD against AMD and DR. However, the evidence for cataract, glaucoma, and DES was less conclusive, and high-quality studies are needed for comprehensive evaluations of the potential benefits of MD on these eye diseases.

Access or request full text: https://libkey.io/10.3390/nu15092043

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=163685222&custid=ns0234</u> 46

37. Genome-wide analysis of genetic pleiotropy and causal genes across three age-related ocular disorders

www.eastcheshirenhslibrary.net

Facilitating evidence-based decision making

Item Type: Journal Article

Authors: Yao, Xueming;Yang, Hongxi;Han, Han;Kou, Xuejing;Jiang, Yuhan;Luo, Menghan;Zhou, Yao;Wang, Jianhua;Fan, Xutong;Wang, Xiaohong;Li, Mulin Jun and Yan, Hua

Publication Date: 2023

Journal: Human Genetics 142(4), pp. 507-522

Abstract: Age-related macular degeneration (AMD), cataract, and glaucoma are leading causes of blindness worldwide. Previous genome-wide association studies (GWASs) have revealed a variety of susceptible loci associated with age-related ocular disorders, yet the genetic pleiotropy and causal genes across these diseases remain poorly understood. By leveraging large-scale genetic and observational data from ocular disease GWASs and UK Biobank (UKBB), we found significant pairwise genetic correlations and consistent epidemiological associations among these ocular disorders. Cross-disease meta-analysis uncovered seven pleiotropic loci, three of which were replicated in an additional cohort. Integration of variants in pleiotropic loci and multiple single-cell omics data identified that Müller cells and astrocytes were likely trait-related cell types underlying ocular comorbidity. In addition, we comprehensively integrated eye-specific gene expression quantitative loci (eQTLs), epigenomic profiling, and 3D genome data to prioritize causal pleiotropic genes. We found that pleiotropic genes were essential in nerve development and eye pigmentation, and targetable by aflibercept and pilocarpine for the treatment of AMD and glaucoma. These findings will not only facilitate the mechanistic research of ocular comorbidities but also benefit the therapeutic optimization of age-related ocular diseases. (© 2023. The Author(s), under exclusive licence to Springer-Verlag GmbH Germany, part of Springer Nature.)

Access or request full text: https://libkey.io/10.1007/s00439-023-02542-4

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36917350&custid=ns0234</u> 46

38. Clinical Applications of Artificial Intelligence in Glaucoma

Item Type: Journal Article

Authors: Yousefi, Siamak

Publication Date: Jan ,2023

Journal: Journal of Ophthalmic & Vision Research 18(1), pp. 97-112

Abstract: Ophthalmology is one of the major imaging-intensive fields of medicine and thus has potential for extensive applications of artificial intelligence (AI) to advance diagnosis, drug efficacy, and other treatment-related aspects of ocular disease. AI has made impressive progress in ophthalmology within the pastfewyears and two autonomous AI-enabled systems have received US regulatory approvals for autonomously screening for mid-level or advanced diabetic retinopathy and macular edema. While no autonomous AI-enabled system for glaucoma screening has yet received US regulatory approval, numerous assistive AI-enabled software tools are already employed in commercialized instruments for quantifying retinal images and visual fields to augment glaucoma research and clinical practice. In this literature review (non-systematic), we provide an overview of AI applications in glaucoma, and highlight some limitations and considerations for AI integration and adoption into clinical practice.

Access or request full text: https://libkey.io/10.18502/jovr.v18i1.12730

URL: https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=rzh&AN=162044645&custid=ns0234

39. Plasma metabolite profile for primary open-angle glaucoma in three US cohorts and the UK Biobank

Item Type: Journal Article

46

Authors: Zeleznik, Oana A.;Kang, Jae H.;Lasky-Su, Jessica;Eliassen, A. H.;Frueh, Lisa;Clish, Clary B.;Rosner, Bernard A.;Elze, Tobias;Hysi, Pirro;Khawaja, Anthony;Wiggs, Janey L. and Pasquale, Louis R.

Publication Date: 2023

Journal: Nature Communications 14(1), pp. 1-11

Access or request full text: https://libkey.io/10.1038/s41467-023-38466-w

URL: <u>https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=EPTOC163827091&custid=ns023446</u>

40. Exogenous hormone use and the risk of surgically treated cataract: Evidence from 91 760 female participants in the 45 and Up Study

Item Type: Journal Article

Authors: Zhang, Jiaqing; Shang, Xianwen; Liu, Zhenzhen; Tan, Xuhua; He, Mingguang; Han, Xiaotong and Luo, Lixia

Publication Date: 2023

Journal: Acta Ophthalmologica 101(3), pp. e275-e285

Abstract: Purpose: To investigate the association between exogenous hormone use and the risk of cataract surgery among working-aged Australian women.; Methods: A total of 91 760 female participants aged 45-65 years and without prior history of cataract surgery were prospectively enrolled between January 2006 and December 2009 in New South Wales (NSW), Australia. A baseline self-reported guestionnaire was used to collect information on participant demographic, socio-economic, lifestyle characteristics, medical history as well as the use of hormonal contraception and hormone replacement therapy (HRT). Cataract surgery for these participants during 2006-2019 was determined according to the Medicare Benefits Schedule database. Cox regression was used to assess the association between exogenous hormone use and incident cataract surgery during the follow-up.; Results: During a mean follow-up of 11.3 years, 10 444 participants underwent cataract surgery with a corresponding incidence of 11.4% (10 444/91 760). Compared with never users, ever and current users of HRT had a 22% and 14% increased risk of cataract surgery, respectively. A dose-response with longer HRT use resulting in a larger increase in cataract surgery risk was observed (p for trend <0.001). Among participants never used HRT, hormonal contraception had a protective effect against incident cataract surgery (hazards ratio: 0.87; 95% confidence interval: 0.80-0.94).; Conclusions: Use of HRT significantly increased the risk of cataract surgery, and hormonal contraception use had a protective effect on cataract surgery among HRT non-users. Further studies assessing the effect of different hormone types and doses are needed. (© 2022 Acta Ophthalmologica Scandinavica Foundation. Published by John Wiley & Sons Ltd.)

Access or request full text: https://libkey.io/10.1111/aos.15267

URL: https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=mdc&AN=36245397&custid=ns0234

<u>46</u>

You will need your <u>NHS OpenAthens account</u> to access the full text of licenced content. This service is provided to the NHS in England by NHSE Workforce, Training & Education.