



Ophthalmology Update 8: Summer 2019

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Full strategy

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1. Digital ophthalmology in Scotland: benefits to patient care and education.

Author(s): Annoh, Roxanne; Patel, Sirjhun; Beck, Daniel; Ellis, Heather; Dhillon, Bal; Sanders, Roshini

Source: Clinical ophthalmology (Auckland, N.Z.); 2019; vol. 13 ; p. 277-286

Publication Date: 2019

Publication Type(s): Journal Article

PubMedID: 30799914

Available at [Clinical ophthalmology \(Auckland, N.Z.\)](#) - from Europe PubMed Central - Open Access

Available at [Clinical ophthalmology \(Auckland, N.Z.\)](#) - from Unpaywall

Abstract: Tackling visual impairment remains an important public health issue. Due to limited resources and the increasing demand on hospital eye services (HES), delivery of quality eye care within the community is essential. Training of clinical ophthalmic specialists and allied health-care professionals in the detection and management of common eye conditions can thus help to reduce the burden of eye disease and improve prognostic outcomes. Digital imaging has become a useful tool in facilitating eye-care delivery in both the community and hospital setting. In the last decade, the advent of electronic image exchange via a centralized referral unit in Scotland has revolutionized screening for ophthalmic disease, referrals, and shared care between community and HES clinicians. A government-led initiative known as the Scottish Eyecare Integration Project introduced electronic transfer of digital images within referrals from community optometrists to HES, which greatly reduced outpatient waiting times and improved patient satisfaction. The catalogue of live clinical information and digital images that resulted from the project led to the creation of a virtual learning platform through the University of Edinburgh. Participating professionals involved in eye care have interactive discussions about common eye conditions by sharing digital images of cases and investigations on a global online platform. This has received worldwide attention and inspired the creation of other university courses, e-learning platforms in eye-health education, and shared-care schemes in the screening of eye disease. We show that digital ophthalmology plays a vital role in the integration of community and HES partnership in delivery of patient care and in facilitating eye-health education to a global audience.

Database: Medline

2. Early Pars Plana Vitrectomy for Treatment of Acute Infective Endophthalmitis.

Author(s): Ho, I-Van; Fernandez-Sanz, Guillermo; Levasseur, Steve; Ting, Eugene; Liew, Gerald; Playfair, Justin; Downie, John; Gorbatov, Mark; Hunyor, Alex P; Chang, Andrew A

Source: Asia-Pacific journal of ophthalmology (Philadelphia, Pa.); 2019; vol. 8 (no. 1); p. 3-7

Publication Date: 2019

Publication Type(s): Journal Article

PubMedID: 30666852

Available at [Asia-Pacific journal of ophthalmology \(Philadelphia, Pa.\)](#) - from Unpaywall

Abstract:

PURPOSE: To evaluate the efficacy and safety of early pars plana vitrectomy (PPV) for the treatment of acute infective endophthalmitis, and identify prognostic factors for better visual outcome.

DESIGN: Retrospective cohort study.

METHODS: Consecutive patients who underwent early PPV within 72 hours of presentation for the treatment of acute infective bacterial endophthalmitis and presented to a large tertiary referral center in New South Wales, Australia, between January 2009 and December 2013 were included. Changes in best-corrected visual acuity (VA) from baseline to 1 year were examined.

RESULTS: A total of 64 patients were included. The inciting events were cataract surgery (53%), intravitreal injection (36%), trabeculectomy (3%), and endogenous (3%). The mean VA improved from 3.1 logMAR (hand motion) at baseline to 1.02 (approximately 20/200) at 1 year, with 42% achieving final VA equal to or better than 0.477 logMAR (20/60) following early PPV. Positive prognostic factors were negative microbial cultures ($P < 0.01$) and etiology of post-cataract surgery ($P < 0.01$). In multivariable analyses adjusting for age and prognostic factors, patients with baseline VA of light perception and hand motion achieved greater visual gains than those with counting fingers, with gains of logMAR of -2.68, -2.09, and -0.85, respectively ($P < 0.0001$).

CONCLUSIONS: Most patients who undergo early PPV experience substantial VA improvement. Negative microbial cultures and endophthalmitis after cataract surgery were associated with better final visual outcome. Patients with presenting VA of light perception or hand motion achieved higher visual gains than those with counting fingers, suggesting the possibility that early PPV may be beneficial in both groups.

Database: Medline

3. Clinical Effectiveness of Intravitreal Fluocinolone Acetonide (FAC) (ILUVIEN™) in Patients with Diabetic Macular Oedema (DMO) Refractory to Prior Therapy: The Manchester Experience.

Author(s): Young, James F; Walkden, Andrew; Stone, Amy; Mahmood, Sajjad

Source: Ophthalmology and therapy; Sep 2019; vol. 8 (no. 3); p. 477-484

Publication Date: Sep 2019

Publication Type(s): Journal Article

PubMedID: 31309417

Available at [Ophthalmology and therapy](#) - from Europe PubMed Central - Open Access

Available at [Ophthalmology and therapy](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Ophthalmology and therapy](#) - from Unpaywall

Abstract:

INTRODUCTION: Diabetic macular oedema (DMO) remains a significant cause of sight loss in the UK. Despite macular laser and anti-VEGF agents, a large proportion of patients remain with persistent DMO. We present our results of using 0.19 mg fluocinolone acetonide (FAC) intravitreal implant in this cohort with up to 3 years of follow-up.

METHODS: This is a single-centre retrospective review of patients treated with FAC implant for refractory DMO. The primary efficacy end point was visual acuity and secondary efficacy end point was central retinal thickness (CRT) on OCT. A primary safety end point was a rise in IOP requiring treatment.

RESULTS: Twenty-one eyes were identified with an average follow-up of 27 months (6-36 months). Visual acuity change from baseline was -0.1 ETDRS letters at year 1 ($n = 13$), 8.1 letters at year 2 ($n = 13$) and 10.7 letters at year 3 ($n = 10$). CRT improved by -132.1 μm at year 1 ($n = 15$), -172.8 μm at year 2 ($n = 13$) and -157.8 μm at year 3 ($n = 10$). Five eyes (24%) required further anti-VEGF during follow-up and two (9.5%) required further focal laser. IOP rise requiring treatment was noted in

eight eyes (38%). Seven were steroid induced. One was caused by rubeotic glaucoma. Six (75%) were managed medically and the remaining two also required surgery.

CONCLUSION: This data add to the limited real-world data on FAc in DMO with 3 years of follow-up. Vision and macular architectures both improved at varying rates over 3 years in patients with refractory DMO. IOP rise is a risk but, in the majority, it can be managed medically.

Database: Medline

4. Clinical Effectiveness of Intravitreal Therapy With Ranibizumab vs Aflibercept vs Bevacizumab for Macular Edema Secondary to Central Retinal Vein Occlusion: A Randomized Clinical Trial.

Author(s): Hykin, Philip; Prevost, A Toby; Vasconcelos, Joana C; Murphy, Caroline; Kelly, Joanna; Ramu, Jayashree; Hounsome, Barry; Yang, Yit; Harding, Simon P; Lotery, Andrew; Chakravarthy, Usha; Sivaprasad, Sobha; LEAVO Study Group

Source: JAMA ophthalmology; Aug 2019

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 31465100

Abstract:

Importance: The comparative clinical effectiveness of ranibizumab, aflibercept, and bevacizumab for the management of macular edema due to central retinal vein occlusion (CRVO) is unclear.

Objective: To determine whether intravitreal aflibercept or bevacizumab compared with ranibizumab results in a noninferior mean change in vision at 100 weeks for eyes with CRVO-related macular edema.

Design, Setting, and Participants: This prospective, 3-arm, double-masked, randomized noninferiority trial (Lucentis, Eylea, Avastin in Vein Occlusion [LEAVO] Study) took place from December 12, 2014, through December 16, 2016, at 44 UK National Health Service ophthalmology departments. Inclusion criteria included age 18 years or older, visual impairment due to CRVO-related macular edema of less than 12 months with best-corrected visual acuity (BCVA) Early Treatment Diabetic Retinopathy Study letter score (approximate Snellen equivalent) in the study eye between 19 (20/400) and 78 (20/32), and spectral domain optical coherence tomography imaging central subfield thickness of 320 μm or greater. Data were analyzed from March 4, 2019, to April 26, 2019. Interventions Participants were randomized (1:1:1) to receive repeated intravitreal injections of ranibizumab (0.5 mg/0.05 mL) (n = 155), aflibercept (2.0 mg/0.05 mL) (n = 154), or bevacizumab (1.25 mg/0.05 mL) (n = 154) for 100 weeks.

Main Outcomes and Measures: Adjusted mean change in BCVA in the study eye at 100 weeks wherein noninferiority was concluded if the lower bounds of the 95% CI of both the intention-to-treat and the per protocol analyses were above -5 letters.

Results: Of 463 participants, 265 (57.2%) were male, with a mean (SD) age of 69.1 (13.0) years. The mean (SD) gain in BCVA letter score was 12.5 (21.1) for ranibizumab, 15.1 (18.7) for aflibercept, and 9.8 (21.4) for bevacizumab at 100 weeks. Aflibercept was noninferior to ranibizumab (intention-to-treat-adjusted mean BCVA difference, 2.23 letters; 95% CI, -2.17 to 6.63 letters; $P < .001$). Bevacizumab was not noninferior to ranibizumab (intention-to-treat-adjusted mean BCVA difference, -1.73 letters; 95% CI, -6.12 to 2.67 letters; $P = .07$). The per protocol analysis conclusions were similar. Fewer mean injections were given in the aflibercept group (10.0) than in the ranibizumab (11.8) group (mean difference at 100 weeks, -1.9; 95% CI, -2.9 to -0.8).

Conclusions and Relevance: Mean changes in vision after treatment of macular edema due to CRVO were no worse using aflibercept compared with ranibizumab. Mean changes in vision using bevacizumab compared with ranibizumab were inconclusive regarding vision outcomes (ie, the change in visual acuity from baseline, on average, may be worse or may not be worse when using bevacizumab compared with ranibizumab). Trial Registration ISRCTN13623634.

Database: Medline

5. Conventional occlusion versus pharmacologic penalization for amblyopia.

Author(s): Li, Tianjing; Qureshi, Riaz; Taylor, Kate

Source: The Cochrane database of systematic reviews; Aug 2019; vol. 8 ; p. CD006460

Publication Date: Aug 2019

Publication Type(s): Journal Article Review

PubMedID: 31461545

Available at [The Cochrane database of systematic reviews](#) - from Cochrane Collaboration (Wiley)

Abstract:

BACKGROUND: Amblyopia is defined as impaired visual acuity in one or both eyes without demonstrable abnormality of the visual pathway, and is not immediately resolved by wearing glasses.

OBJECTIVES: In performing this systematic review, we aimed to synthesize the best available evidence regarding the effectiveness and safety of conventional occlusion therapy compared to atropine penalization in treating amblyopia.

SEARCH METHODS: We searched the Cochrane Central Register of Controlled Trials (CENTRAL) (which contains the Cochrane Eyes and Vision Trials Register) (2018, Issue 8); Ovid MEDLINE; Ovid Embase; LILACS BIREME; ClinicalTrials.gov; ISRCTN; and the WHO ICTRP on 7 September 2018. SELECTION

CRITERIA: We included randomized/quasi-randomized controlled trials comparing conventional occlusion to atropine penalization for amblyopia.

DATA COLLECTION AND ANALYSIS: Two review authors independently screened abstracts and full-text articles, abstracted data, and assessed risk of bias.

MAIN RESULTS: We included seven trials (five randomized controlled trials and two quasi-randomized controlled trials) conducted in six countries (China, India, Iran, Ireland, Spain, and the United States) with a total of 1177 amblyopic eyes. Three of these seven trials were from the original 2009 version of the review. We assessed two trials as having a low risk of bias across all domains, and the remaining five trials as having unclear or high risk of bias for some domains. As different occlusion modalities, atropine penalization regimens, and populations were used across the included trials, we did not conduct any meta-analysis due to clinical and statistical heterogeneity. Evidence from six trials (two at low risk of bias) suggests that atropine penalization is as effective as conventional occlusion in improving visual acuity. Similar improvement in visual acuity was reported at all time points at which it was assessed, ranging from five weeks (improvement of 1 line) to 10 years (improvement of greater than 3 lines). At six months, although most participants (363/522) come from a trial rated as at low risk of bias with a precise estimate (mean difference (MD) 0.03, 95% confidence interval (CI) 0.00 to 0.06), two other trials rated as at high risk of bias produced inconsistent estimates and wide confidence intervals (MD -0.02, 95% CI -0.11 to 0.07 and MD -0.14, 95% CI -0.23 to -0.05; moderate-certainty evidence). At 24 months, additional improvement was

found in both groups, but there continued to be no meaningful difference between those receiving occlusion and those receiving atropine therapies (moderate-certainty evidence). We did not find any difference in ocular alignment, stereo acuity, or sound eye visual acuity between occlusion and atropine penalization groups (moderate-certainty evidence). Both treatments were well tolerated. Atropine was associated with better adherence (moderate-certainty evidence) and quality of life (moderate-certainty evidence), but also a higher reported risk of adverse events in terms of mild reduction in the visual acuity of the sound eye not requiring treatment and light sensitivity (high-certainty evidence). Skin, lid, or conjunctival irritation were more common among participants receiving patching than those receiving atropine (high-certainty evidence). Atropine penalization costs less than conventional occlusion.

AUTHORS' CONCLUSIONS: Both conventional occlusion and atropine penalization produce visual acuity improvement in the amblyopic eye. Atropine penalization appears to be as effective as conventional occlusion, although the magnitude of improvement differed among the trials we analyzed.

Database: Medline

6. Effects of cataract surgery and intra-ocular lens implantation on visual function and quality of life in age-related cataract patients: a systematic review protocol.

Author(s): Jain, Shalu; Rajshekar, Kavitha; Aggarwal, Anjana; Chauhan, Akshay; Gauba, Vijay Kumar

Source: Systematic reviews; Aug 2019; vol. 8 (no. 1); p. 204

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 31409420

Available at [Systematic Reviews](#) - from BioMed Central

Available at [Systematic Reviews](#) - from Europe PubMed Central - Open Access

Available at [Systematic Reviews](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [Systematic Reviews](#) - from Unpaywall

Abstract:

BACKGROUND: Cataract is the leading cause of blindness and low vision worldwide. Presently, cataract surgery is the only treatment for cataract and is very effective in restoring sight. In cataract surgery, the natural lens of the eye that becomes clouded is removed and replaced with an artificial intraocular lens. There are multiple techniques for removal of lens as well as many types of intraocular lenses available for implantation. For this reason, it becomes imperative to monitor the impact of different surgical techniques and different intraocular lenses on health-related quality of life (HRQoL) of the patients. This systematic review aims to evaluate HRQoL evidences on effects of different types of cataract surgeries and intraocular lenses on visual function and quality of life in age-related cataract patients.

METHOD: Databases like Cochrane, EMBASE, SCOPUS, NHS Economic Evaluation Database (NHS EED), Health Technology Assessment (HTA) database, MEDLINE, ClinicalTrials.gov, Current Controlled Trials and World Health Organization International Clinical Trials Registry Platform (WHO ICTRP) will be searched systematically. Two reviewers will independently screen studies using predefined inclusion and exclusion criteria along with the extraction of data, and assessment of methodological quality using a standard checklist.

DISCUSSION: This systematic review will help in understanding how different types of cataract surgeries and intraocular lenses make a difference on quality of life of age-related cataract patients in terms of visual function and health-related quality of life. As the review attempts to bring together all the cataract-related HRQoL evidences pertaining to different cataract surgical techniques, different intraocular lenses and cataract-related complications, it will also identify gaps in evidence. SYSTEMATIC REVIEW REGISTRATIONPROSPERO CRD42018092377.

Database: Medline

7. The cost burden of falls in people with glaucoma in National Health Service Hospital Trusts in the UK.

Author(s): McGinley, Patrick; Ansari, Ejaz; Sandhu, Harjit; Dixon, Tricia

Source: Journal of medical economics; Aug 2019 ; p. 1-7

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 31322025

Available at [Journal of medical economics](#) - from Unpaywall

Abstract:

Aims: Falls have devastating consequences in older people with a considerable cost burden. Glaucoma is a risk factor for falls, and patients with glaucoma who fall are at high risk of hospital admission. The aim was to quantify the cost burden of falls to NHS Trusts in people with glaucoma in the UK.

Methods: Financial data were used to identify non-elective episodes and associated costs from 2012 to 2018, for all admissions where glaucoma was recorded as a secondary diagnosis and admissions for falls (all, with and without a glaucoma secondary diagnosis). A secondary diagnosis is only recorded by the admitting clinician if it is clinically relevant; therefore, a secondary diagnosis of glaucoma was used as a proxy for glaucoma as a contributory factor to falls.

Limitations: Use of financial records means that data on other falls risk factors was unavailable and we cannot be certain that glaucoma was the only relevant factor in all falls. Although this methodology is imperfect, case capture was biased towards cases with clinically significant glaucoma, and financial data is robust. Potential coding errors mean that we may have excluded patients in whom glaucoma was a factor in their fall.

Results: At Maidstone and Tunbridge Wells (MTW) NHS Trust, 11.7% (95% confidence intervals [CI] = 10.7-12.8) of admissions for falls were in patients with a secondary diagnosis of glaucoma. This extrapolates to an estimated annual 10,056 admissions at a cost of £28.6 million across the UK. This is an under-estimate of cost, as A&E attendance without admission and outpatient appointments are excluded.

Conclusions: At MTW, glaucoma potentially plays a part in around one in eight falls resulting in hospital admission, at considerable personal and financial cost. It is suggested that further work should explore early diagnosis of glaucoma, treatment, and mitigation of falls risk.

Database: Medline

8. Paediatric endophthalmitis: a UK retrospective study.

Author(s): Parvizi, S; Papadopoulos, M; Panteli, V; Brookes, J; Soothill, J; Bloom, J; Adams, G G W; Theodorou, M

Source: Eye (London, England); Aug 2019

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 31406355

Abstract:

INTRODUCTION: Paediatric endophthalmitis is a severe but rare complication of intraocular surgery, penetrating trauma and far less commonly extra-ocular surgery or endogenous origin. We set out to establish the incidence and risk factors of exogenous endophthalmitis in children, and to develop an evidence-based protocol that can be used for treatment of suspected exogenous endophthalmitis in children.

METHODS: Microbiology reports and operation numbers were obtained from two large tertiary referral hospitals sharing 24-h paediatric ophthalmology cover for the period January 2009-December 2016. All cases of aqueous and/or vitreous tap performed on children aged ≤ 18 years were identified and case notes reviewed for complete information on each case.

RESULTS: Sixteen cases were eligible for inclusion as 'postoperative endophthalmitis': complete data was found on 13 cases. The incidence of postoperative endophthalmitis was 0.17% over 7 years. The mean age of presentation was 5.5 years (range from 7 months to 16 years and 9 months), from 3 days-78 months post operatively. In all, 11/13 had at least one glaucoma procedure. Microbiology results showed growth in 8/13. Most isolates were Gram-positive bacteria but Gram-negatives were also isolated and in one case *Candida* from a conjunctival swab. The antibiotic regime varied depending on age, organism identified and sensitivities. In all, 9/13 had hand movement or worse vision after treatment.

CONCLUSION: Paediatric endophthalmitis may present to any paediatric/general ophthalmologist. It is a rare but devastating condition with poor visual prognosis, requiring prompt recognition and aggressive management. Previous glaucoma surgery is a long-term risk factor in our local paediatric population. Based on our study, an evidence-based protocol for management is proposed in order to improve outcomes.

Database: Medline

9. Seeking a practical definition of stable glaucoma: a Delphi consensus survey of UK glaucoma consultants.

Author(s): Lakhani, B K; Giannouladis, K; Leighton, P; King, A J

Source: Eye (London, England); Aug 2019

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 31383993

Abstract:

BACKGROUND: To generate a practical and clinically useful consensus definition of 'stable glaucoma' to aid provision of glaucoma services in the UK and to provide guidance for the criteria that should be used for monitoring of glaucoma patients in primary care services.

METHODS: A Delphi exercise was undertaken to derive consensus through an online questionnaire. Participants were asked to score their strength of agreement for a series of clinical parameters. Results and comments from each round were used to inform subsequent rounds. A total of 3 rounds were undertaken.

RESULTS: Thirty-two glaucoma experts participated in the study with over 90% completion rate achieved over three rounds. The consensus was reached for the following parameters: IOP levels to be used for defining stability, visual field-testing techniques to define stability, the number of medication changes acceptable to define stability and the number of treatment medications allowed to define stability. No consensus was reached on the period of time over which stability was defined, however, there was considerable agreement that longer durations of follow up (36-48 months) were required. A combination of optic disc photos and ocular coherence topography (OCT) retinal nerve fibre layer (RNFL) assessment/ OCT disc structural evaluation are the preferred imaging methods for the assessment of structural stability. Oversight by a glaucoma consultant was considered important for glaucoma monitoring schemes.

CONCLUSION: The consensus definition of glaucoma stability generated through this Delphi exercise provides guidance for allocation of patients suitable for monitoring in primary care glaucoma monitoring schemes.

Database: Medline

10. EQ-5D-5L is More Responsive than EQ-5D-3L to Treatment Benefit of Cataract Surgery.

Author(s): Gandhi, Mihir; Ang, Marcus; Teo, Kelvin; Wong, Chee Wai; Wei, Yvonne Chung-Hsi; Tan, Rachel Lee-Yin; Janssen, Mathieu F; Luo, Nan

Source: The patient; Aug 2019; vol. 12 (no. 4); p. 383-392

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 30607809

Abstract:

BACKGROUND: It is not clear whether 5-level EQ-5D (EQ-5D-5L) utilities based on recently developed value sets are more responsive than 3-level EQ-5D (EQ-5D-3L) utilities.

OBJECTIVES: The study aims were to compare (1) the responsiveness of EQ-5D-5L and EQ-5D-3L utilities and (2) the responsiveness of these utilities with the Short Form-6 Dimension (SF-6D) and Health Utilities Index Mark 3 (HUI3) utilities to the treatment benefit of cataract surgery.

METHODS: A total of 148 patients were interviewed before and after their cataract surgery using EQ-5D-3L, EQ-5D-5L, SF-6D, and HUI3. Responsiveness was assessed for all measures using the mean change (post-treatment-pre-treatment), standardized effect size (SES), standardized response mean (SRM), and F-statistic.

RESULTS: Using the Singapore value sets, mean change for EQ-5D-3L and EQ-5D-5L utilities was 0.016 and 0.028, SES was 0.097 and 0.199; SRM was 0.091 and 0.196; and F-statistic was 1.2 and 5.7, respectively. Similar trends were observed using the UK/England EQ-5D value sets, although the magnitude was slightly smaller. The mean change, SES, SRM and F-statistics for SF-6D (UK value set) were 0.020, 0.234, 0.249, and 9.2, respectively. The values of mean change, SES, SRM and F-statistics for HUI3 (Canada value set) were 0.080, 0.472, 0.474, and 33.3, respectively.

CONCLUSIONS: The EQ-5D-5L utilities tend to be more responsive than the EQ-5D-3L utilities to treatment benefits of cataract surgery. The HUI3 utilities are more responsive than both the EQ-5D-

5L and SF-6D, and SF-6D utilities may be slightly more responsive than the EQ-5D-5L for assessing patients undergoing cataract surgery.

Database: Medline

11. Clinical effectiveness of the Manchester Glaucoma Enhanced Referral Scheme.

Author(s): Gunn, Patrick J G; Marks, Joanne R; Konstantakopoulou, Evgenia; Edgar, David F; Lawrenson, John G; Roberts, Stephen A; Spencer, Anne F; Fenerty, Cecilia H; Harper, Robert A

Source: The British journal of ophthalmology; Aug 2019; vol. 103 (no. 8); p. 1066-1071

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 30309913

Available at [The British journal of ophthalmology](#) - from BMJ Journals

Available at [The British journal of ophthalmology](#) - from Unpaywall

Abstract:

BACKGROUND: Glaucoma referral filtering schemes have operated in the UK for many years. However, there is a paucity of data on the false-negative (FN) rate. This study evaluated the clinical effectiveness of the Manchester Glaucoma Enhanced Referral Scheme (GERS), estimating both the false-positive (FP) and FN rates.

METHOD: Outcome data were collected for patients newly referred through GERS and assessed in 'usual-care' clinics to determine the FP rate (referred patients subsequently discharged at their first visit). For the FN rate, glaucoma suspects deemed not requiring referral following GERS assessment were invited to attend for a 'reference standard' examination including all elements of assessment recommended by National Institute for Health and Care Excellence (NICE) by a glaucoma specialist optometrist. A separate 33 cases comprising randomly selected referred and non-referred cases were reviewed independently by two glaucoma specialist consultant ophthalmologists to validate the reference standard assessment.

RESULTS: 1404 patients were evaluated in GERS during the study period; 651 (46.3%) were referred to the Hospital Eye Service (HES) and 753 (53.6%) were discharged. The FP rate in 307 assessable patients referred to the HES was 15.5%. This study reviewed 131 (17.4%) of those patients not referred to the HES through the GERS scheme; 117 (89.3%) were confirmed as not requiring hospital follow-up; 14 (10.7%) required follow-up, including 5 (3.8%) offered treatment. Only one patient (0.8%) in this sample met the GERS referral criteria and was not referred (true FN). There were no cases of missed glaucoma or non-glaucomatous pathology identified within our sample.

CONCLUSION: The Manchester GERS is an effective glaucoma filtering scheme with a low FP and FN rate.

Database: Medline

12. Migration to aphakia and contact lens treatment is the trend in the management of unilateral congenital cataract in Britain and Ireland.

Author(s): McAnena, Lisa; McCreery, Kathryn; Brosnahan, Donal

Source: Irish journal of medical science; Aug 2019; vol. 188 (no. 3); p. 1021-1024

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 30269187

Abstract:

BACKGROUND: The Infant Aphakia Treatment Study (IATS) compared the treatment of unilateral cataract in infants aged 1-6 months with primary intraocular lens (IOL) implantation vs aphakia with contact lens (CL) correction.

AIMS: This study aims to assess the current trends in the treatment of unilateral congenital cataract in infants less than 6 months at surgery in the UK and Ireland.

METHODS: An anonymous survey was emailed to the 200 members of the BIPOSA mailing list with 14 questions to assess treatment choice (primary intraocular lens (IOL) vs aphakia with contact lens (CL)), reasons for this choice, and assessment of local CL services.

RESULTS: There were 56 respondents, 39 of whom completed the entire survey. Aphakia with CL was the treatment choice for 74.4% of respondents. A quarter (25.6%) of respondents said they were performing primary IOL implantation prior to the publication of the Infant Aphakia Treatment Study (IATS), but now choose aphakia with CL. Amongst the 20.5% (n = 8) of respondents who chose primary IOL implantation, 5 attributed their choice to "inadequate CL service". The majority (84.6%) of respondents rated their infant CL service as either "good" or "very good".

CONCLUSION: Aphakia with CL rehabilitation was the most common approach to the treatment of unilateral congenital cataract in infants less than 6 months in this study. The results of the IATS appear to have influenced a change in practice from primary IOL implantation to aphakia and CL visual rehabilitation in approximately one quarter of those surveyed.

Database: Medline

13. Safety and Efficacy of Supratarsal Triamcinolone for Treatment of Vernal Keratoconjunctivitis in Ireland.

Author(s): McSwiney, Terence J; Power, Barry; Murphy, Conor C; Brosnahan, Donal; Power, William

Source: Cornea; Aug 2019; vol. 38 (no. 8); p. 955-958

Publication Date: Aug 2019

Publication Type(s): Journal Article

PubMedID: 31276459

Abstract:

PURPOSE: To describe the clinical features, risk factors, and treatment outcomes after supratarsal injection of triamcinolone for vernal keratoconjunctivitis (VKC).

METHODS: A retrospective review of all patients treated with supratarsal triamcinolone for VKC between February 2002 and May 2017 at the Royal Victoria Eye and Ear Hospital and Our Lady's Children Hospital Crumlin, Dublin, Ireland, was performed.

RESULTS: Twenty-five patients, 46 eyes, and 145 injections were included for analysis. The mean age at first injection was 9.1 ± 5.7 years. Ninety-six percent of the patients were male. A seasonal variation was noted, with 59 injections (41%) of triamcinolone administered for acute and refractive cases of VKC in the summer compared with 35 (24%), 35 (24%), and 16 (11%) in the spring, autumn, and winter months, respectively. The most common presenting complaint was red eye, which was seen in all cases. Hay fever (64%) was the most common associated systemic disease. Each eye required, on average, 3.2 injections (range 1-9 injections), and the mean duration from the onset of

symptoms to final treatment was 3.03 years (range 0-7.9 years). The mean presenting and final visual acuities were 0.33 and 0.11 logarithm of the minimum angle of resolution, respectively ($P < 0.0001$). During our study period, no patient experienced intraocular pressure rise requiring treatment, development of lenticular opacity, or ptosis after supratarsal injection of triamcinolone.

CONCLUSIONS: In this case series, supratarsal triamcinolone was used in cases of VKC in which topical medications had failed to control the disease process. All patients reported improvement after treatment. There were no cases of intraocular pressure rise, lenticular opacity, or ptosis development after treatment.

Database: Medline

14. Management of microbial keratitis in general practice

Author(s): Nguyen, Vu; Lee, Graham A

Source: Australian Journal of General Practice; Aug 2019; vol. 48 (no. 8); p. 516

Publication Date: Aug 2019

Publication Type(s): Journal Article

Available at [Australian Journal of General Practice](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract: Patient risk factors for microbial keratitis include contact lens wear, underlying ocular surface diseases (such as herpetic keratitis, chronic blepharitis or dry eyes), trauma and local or systemic immunosuppressive states.³⁻⁵ Patients' occupations and hobbies should also be explored. Formation of microbial biofilms on the lens surface as well as entrapment of microorganisms within the lens itself can occur.⁴ Storage cases and disinfecting solutions can become contaminated and be a source of infection; therefore, questions relating to replacement of both are warranted.⁶ However, it must be noted that microbial keratitis can occur with meticulous lens care and even in people who wear daily disposable lenses. Risk factors include swimming in contact lenses, exposure to spa water or storing contacts in homemade saline solutions.⁸ These organisms derive nutrition from normal bacterial flora and can persist indefinitely in a microbe-rich ocular environment. Authors Vu Nguyen MD, BAppSci(Optom) (Hons), Resident Medical Officer, City Eye Centre, Brisbane, Qld; Royal Brisbane and Women's Hospital, Brisbane, Qld Graham A Lee MD, MBBS, FRANZCO, Consultant Ophthalmologist, City Eye Centre, Brisbane, Qld; Associate Professor of Ophthalmology, University of Queensland, Brisbane, Qld. eye@cityeye.com.au Competing interests:

Database: BNI

15. Peri-operative management of ophthalmic patients on anti-thrombotic agents: a literature review.

Author(s): Makuloluwa, A K; Tiew, S; Briggs, M

Source: Eye (London, England); Jul 2019; vol. 33 (no. 7); p. 1044-1059

Publication Date: Jul 2019

Publication Type(s): Journal Article Review

PubMedID: 30850731

Abstract: There is variability in the management of ophthalmic patients on anti-thrombotic agents (antiplatelets and anticoagulants) during the peri-operative period. A survey carried out in a UK teaching hospital on a cohort of ophthalmologists showed majority were comfortable with

antiplatelet management but there was variability in managing patients on warfarin and direct oral anticoagulants (DOACs); 40% were unaware of existing guidelines. We aim to review the recommendations in the literature with regards to managing anti-thrombotic agents during the peri-operative period of ophthalmic surgery. We reviewed incidences of complications, specifically, the haemorrhagic complications associated. Pubmed search was carried out on relevant keywords from January 2007 to August 2017. All relevant UK guidelines including the Royal College of Ophthalmologists and British Society of Haematology were reviewed. Literature recommendations for routine cataract surgery under topical or sub-Tenon's anaesthesia would be to continue all anti-thrombotic agents. For sharp needle anaesthesia, avoidance of dual antiplatelet therapy was recommended and warfarin could be continued if INR within therapeutic range. Recommendations for surgeries in glaucoma, vitreo-retinal, oculoplastic and lacrimal; and strabismus are presented. No evidence was found for corneal surgery. Haemorrhagic complications are reported in all groups. Limitations of this review include the retrospective nature, lack of randomized control trials and the limited evidence regarding DOACs. It is important for ophthalmologists to be aware of and balance the risk of thromboembolic events and risks of haemorrhagic complications for ophthalmic surgery. A multi-disciplinary approach is recommended for complex cases.

Database: Medline

16. Laser eye procedure is safe and effective as an early treatment for glaucoma

Author(s): Cook, Rob; Vaughan, Thomas; Martin, Rosie

Source: BMJ : British Medical Journal (Online); Jul 2019; vol. 366

Publication Date: Jul 2019

Publication Type(s): Journal Article

Available at [BMJ : British Medical Journal \(Online\)](#) - from BMJ Journals

Abstract:

The study: Gazzard G, Konstantakopoulou G, Garway-Heath E, et al. Selective laser trabeculoplasty versus eye drops for first-line treatment of ocular hypertension and glaucoma (LiGHT): a multicentre randomised controlled trial. *Lancet* 2019; doi:10.1016/S0140-6736(18)32213-X.

This project was funded by the NIHR Health Technology Assessment Programme (project number 09/104/40) and was sponsored by the Moorfields Eye Hospital NHS Foundation Trust. To read the full NIHR Signal, go to <https://discover.dc.nihr.ac.uk/content/signal-000774/early-glaucoma-laser-eye-treatment-trabeculoplasty>

Database: BNI

17. Health and social care practitioners' understanding of the problems of people with dementia-related visual processing impairment

Author(s): McIntyre, Anne; Harding, Emma; Keir XX Yong; Sullivan, Mary Pat; Gilhooly, Mary; Gilhooly, Kenneth; Woodbridge, Rachel; Crutch, Sebastian

Source: *Health & Social Care in the Community*; Jul 2019; vol. 27 (no. 4); p. 982

Publication Date: Jul 2019

Publication Type(s): Journal Article

Available at [Health & Social Care in the Community](#) - from Wiley Online Library

Available at [Health & Social Care in the Community](#) - from Unpaywall

Abstract: It has been highlighted that health and social care staff need a greater awareness of the needs and problems of those people with young onset dementia in the UK. Symptoms of Alzheimer's disease are relatively well known (memory loss, disorientation, language difficulties and behavioural problems). However, there is less awareness of dementia-related visual processing impairments in Alzheimer's disease, Dementia with Lewy Bodies or rarer dementia syndromes such as posterior cortical atrophy (PCA), leading to delayed assessment, diagnosis and management. This qualitative study explored health and social care practitioners' opinions of the needs of people with dementia-related visual processing impairment (such as individuals with PCA) and identify any training that these practitioners might need. Social workers, occupational therapists, care home staff, rehabilitation workers (visual impairment), optometrists and admiral nurses participated in focus groups or one-to-one semi-structured interviews. All participants were shown video clips of people with dementia-related visual impairment to facilitate discussion. Sixty-one participants took part in focus groups or interviews between November 2014 and December 2015. Participants' experiences and understanding of dementia were explored and thematic analysis of the data identified two major themes. Theme 1 explores participants' understanding of dementia-related visual impairments. Theme 2 recounts how participants address and support people with dementia-related visual impairment and their families. Participants discussed, reflected and critically analysed the video clips during data collection. Most considered new perspectives of their own clients' difficulties and those participants working with people with rarer dementias consolidated their experiences. However, some participants seemed hesitant to accept the existence of visual processing impairment arising due to dementia, rationalising novel information to existing understanding of memory loss or behavioural problems. This study highlights that health and social care practitioners want more training and better understanding of less well-recognised symptoms of dementia and rarer syndromes (including PCA) to ensure appropriate, evidence-based assessment and intervention.

Database: BNI

18. Five cases of orbital extramedullary plasmacytoma: diagnosis and management of an aggressive malignancy.

Author(s): Wang, Samuel S Y; Lee, Mitchell B; George, Adarsh; Wang, Sarah B; Blackwell, Jonathan; Moran, Steve; Francis, Ian C

Source: Orbit (Amsterdam, Netherlands); Jun 2019; vol. 38 (no. 3); p. 218-225

Publication Date: Jun 2019

Publication Type(s): Journal Article

PubMedID: 29985709

Abstract:

Purpose: Multiple myeloma is an insidious haematological malignancy characterised by monoclonal proliferation of plasma cells in the bone marrow. Extramedullary plasmacytoma is a rare manifestation of multiple myeloma and usually occurs in the upper respiratory tract. Orbital involvement is particularly uncommon, but may be associated with devastating visual impairment and poor clinical outcomes. Therefore, this article aims to highlight the need for multidisciplinary management of orbital extramedullary plasmacytoma.

Methods: This is a retrospective observational case series of five patients. All presented to the authors for management of orbital extramedullary plasmacytomas from 2004 to 2015 at Prince of

Wales and Mater Hospitals in Sydney, Australia. Medical records were reviewed for pertinent information including demographics, disease features, management strategy, and clinical progress. The study met Medical Ethics Board standards and is in accordance with the Helsinki Agreements.

Results: This case series of five patients underscores the poor prognosis of orbital extramedullary plasmacytoma. Despite aggressive multidisciplinary management, four of these five patients succumbed to their illness during the study period. However, multidisciplinary management did manage to minimise symptoms and preserve quality of life.

Conclusions: On a case-by-case basis, patients may derive palliative benefit from orbital surgery in conjunction with radiotherapy and chemotherapy. Orbital surgeons are encouraged to work within a multidisciplinary framework of medical specialists, including haematologists and radiation oncologists, when determining the optimal management plan in cases of orbital extramedullary plasmacytoma.

Database: Medline

19. Selective laser trabeculoplasty versus drops for newly diagnosed ocular hypertension and glaucoma: the LiGHT RCT.

Author(s): Gazzard, Gus; Konstantakopoulou, Evgenia; Garway-Heath, David; Garg, Anurag; Vickerstaff, Victoria; Hunter, Rachael; Ambler, Gareth; Bunce, Catey; Wormald, Richard; Nathwani, Neil; Barton, Keith; Rubin, Gary; Morris, Stephen; Buszewicz, Marta

Source: Health technology assessment (Winchester, England); Jun 2019; vol. 23 (no. 31); p. 1-102

Publication Date: Jun 2019

Publication Type(s): Clinical Trial

PubMedID: 31264958

Available at [Health technology assessment \(Winchester, England\)](#) - from Unpaywall

Abstract:

BACKGROUND: Newly diagnosed open-angle glaucoma (OAG) and ocular hypertension (OHT) are habitually treated with intraocular pressure (IOP)-lowering eyedrops. Selective laser trabeculoplasty (SLT) is a safe alternative to drops and is rarely used as first-line treatment.

OBJECTIVES: To compare health-related quality of life (HRQoL) in newly diagnosed, treatment-naive patients with OAG or OHT, treated with two treatment pathways: topical IOP-lowering medication from the outset (Medicine-1st) or primary SLT followed by topical medications as required (Laser-1st). We also compared the clinical effectiveness and cost-effectiveness of the two pathways.

DESIGN: A 36-month pragmatic, unmasked, multicentre randomised controlled trial.

SETTINGS: Six collaborating specialist glaucoma clinics across the UK.

PARTICIPANTS: Newly diagnosed patients with OAG or OHT in one or both eyes who were aged ≥ 18 years and able to provide informed consent and read and understand English. Patients needed to qualify for treatment, be able to perform a reliable visual field (VF) test and have visual acuity of at least 6 out of 36 in the study eye. Patients with VF loss mean deviation worse than -12 dB in the better eye or -15 dB in the worse eye were excluded. Patients were also excluded if they had congenital, early childhood or secondary glaucoma or ocular comorbidities; if they had any previous ocular surgery except phacoemulsification, at least 1 year prior to recruitment or any active treatment for ophthalmic conditions; if they were pregnant; or if they were unable to use topical medical therapy or had contraindications to SLT. INTERVENTIONS SLT according to a predefined protocol compared with IOP-lowering eyedrops, as per national guidelines.

MAIN OUTCOME MEASURES: The primary outcome was HRQoL at 3 years [as measured using the EuroQol-5 Dimensions, five-level version (EQ-5D-5L) questionnaire]. Secondary outcomes were cost and cost-effectiveness, disease-specific HRQoL, clinical effectiveness and safety.

RESULTS: Of the 718 patients enrolled, 356 were randomised to Laser-1st (initial SLT followed by routine medical treatment) and 362 to Medicine-1st (routine medical treatment only). A total of 652 (91%) patients returned the primary outcome questionnaire at 36 months. The EQ-5D-5L score was not significantly different between the two arms [adjusted mean difference (Laser-1st - Medicine-1st) 0.01, 95% confidence interval (CI) -0.01 to 0.03; $p = 0.23$] at 36 months. Over 36 months, the proportion of visits at which IOP was within the target range was higher in the Laser-1st arm (93.0%, 95% CI 91.9% to 94.0%) than in the Medicine-1st arm (91.3%, 95% CI 89.9% to 92.5%), with IOP-lowering glaucoma surgery required in 0 and 11 patients, respectively. There was a 97% probability of Laser-1st being more cost-effective than Medicine-1st for the NHS, at a willingness to pay for a quality-adjusted life-year of £20,000, with a reduction in ophthalmology costs of £458 per patient (95% of bootstrap iterations between -£585 and -£345).

LIMITATION: An unmasked design, although a limitation, was essential to capture any treatment effects on patients' perception. The EQ-5D-5L questionnaire is a generic tool used in multiple settings and may not have been the most sensitive tool to investigate HRQoL.

CONCLUSIONS: Compared with medication, SLT provided a stable, drop-free IOP control to 74.2% of patients for at least 3 years, with a reduced need for surgery, lower cost and comparable HRQoL. Based on the evidence, SLT seems to be the most cost-effective first-line treatment option for OAG and OHT, also providing better clinical outcomes.

FUTURE WORK: Longitudinal research into the clinical efficacy of SLT as a first-line treatment will specify the long-term differences of disease progression, treatment intensity and ocular surgery rates between the two pathways.

TRIAL REGISTRATION: Current Controlled Trials ISRCTN32038223.

FUNDING: This project was funded by the National Institute for Health Research (NIHR) Health Technology Assessment programme and will be published in full in Health Technology Assessment; Vol. 23, No. 31. See the NIHR Journals Library website for further project information.

Database: Medline

20. Factors influencing pupil behaviour during femtosecond laser assisted cataract surgery.

Author(s): Popiela, Magdalena Z; Young-Zvandasara, Tafadzwa; Nidamanuri, Priya; Moore, Tara; Leccisotti, Antonio; Kumar, Vinod

Source: Contact lens & anterior eye : the journal of the British Contact Lens Association; Jun 2019; vol. 42 (no. 3); p. 295-298

Publication Date: Jun 2019

Publication Type(s): Journal Article

PubMedID: 30448179

Abstract:

AIM: Femtosecond laser assisted cataract surgery is associated with pupillary constriction. This study aims to look at patient and surgical factors predisposing to abnormal pupil behaviour during FLACS.

METHODS: This prospective observational study included all patients undergoing FLACS in the Princess of Wales Hospital, Bridgend, UK between February and June 2017. Pupils were measured at three time points; immediately before and after laser pre-treatment, and at the start of surgery.

Pupil behaviour during surgery was noted in descriptive terms, patient demographic, co-morbidities, eye measurements, suction on time, shifting time and laser energy levels were recorded.

RESULTS: Seventy-three eyes were included. Average patient age was 74.84 ± 9.1 years. Mean horizontal pupil sizes immediately before and after femto pre-treatment were 7.87 ± 0.87 mm and 7.7 ± 0.89 mm respectively ($P < 0.0005$). Mean horizontal pupil size at the start of surgery was 6.83 ± 1.43 mm ($P < 0.0005$). Short capsulotomy-pupil distance ($P = 0.01$), shallower anterior chamber ($P = 0.0012$), smaller pre-operative pupil size ($P = 0.045$) and longer suction on time ($P = 0.0019$) were significantly associated with intra-operative miosis during FLACS. Sustained mydriasis was observed in eyes in whom topical diclofenac was used within 2 h of surgery.

CONCLUSIONS: FLACS can result in significant pupil miosis. Eyes particularly at risk are ones with smaller pre-operative pupils and shallower anterior chambers and those subjected to longer suction on time. Well-timed NSAIDs application could be protective against this phenomenon.

Database: Medline

21. Tackling the NHS glaucoma clinic backlog issue.

Author(s): Broadway, David Charles; Tibbenham, Karen

Source: Eye (London, England); May 2019

Publication Date: May 2019

Publication Type(s): Journal Article

PubMedID: 31110230

Abstract:

BACKGROUND/OBJECTIVES: to determine whether mass case review, carried out by glaucoma sub-specialist consultants, for patients for whom there was insufficient clinic capacity, could aid reduction of the glaucoma clinic appointment backlog.

SUBJECTS/METHODS: patient hospital notes were reviewed by a glaucoma fellowship trained consultant and a decision was made as to whether the planned review was appropriate. Decisions were made with respect to timing, clinic-type and necessity for follow-up, together with an assessment as to whether visual field testing was required.

RESULTS: in a 3-year study a total of 9290 cases were included in the study. After consultant review, 5521 (59.5%) patients were kept within the hospital eye service (HES) and an additional 1350 (14.5%) had their next appointment delayed, 384 (4%) were discharged to specialist community glaucoma optometrists and 2035 (22%) were discharged to their standard community optometrists. Overall, therefore 26% of patients were discharged from the HES. Of the planned 9290 appointments, simultaneous visual field testing had been planned for 5393 patients (58%), but after consultant review only 65% ($n = 3482$) of these were considered necessary, reducing the number of required visual field tests by 35% ($n = 1911$).

CONCLUSIONS: the authors suggest that ophthalmology departments experiencing significant clinic appointment backlog issues, consider utilising trained glaucoma sub-specialist consultants to review planned follow-up management of patients within a backlog deficit.

Database: Medline

22. Prevalence of treatment with glaucoma medication in Scotland, 2010-2017.

Author(s): Rotchford, Alan P; Hughes, John; Agarwal, Pankaj Kumar; Tatham, Andrew J

Source: The British journal of ophthalmology; May 2019

Publication Date: May 2019

Publication Type(s): Journal Article

PubMedID: 31097436

Available at [The British journal of ophthalmology](#) - from BMJ Journals

Abstract:

AIMS: To report the number and demographic distribution of patients receiving intraocular pressure (IOP)-lowering medications across the whole population of Scotland for the years 2010-2017 and, using national census data, show how the observed changes compare with those predicted by the increasing age of the population structure over this period.

METHODS: Data were sourced from the Prescribing Information System of the NHS Information and Statistics Division for Scotland. The number of patients dispensed any IOP-lowering medication from a community pharmacy during each calendar year was collected by gender and by 5-year age bands. National census data were used to model the expected annual increase in treatment numbers due to population ageing.

RESULTS: The number of treated patients in 2017 was 61 249 which represents 1.13% of the whole population (or 2.16% over 40 years of age). The number increased from 48 178 in 2010-an increase over this period of 27.13% (3.88% per year). Prevalence increased with age, reaching 10.67% in those over 90 years. After age adjustment, more men were treated than women (OR 1.26). The expected number treated in 2017 based on census predictions was 54 075 (an increase of 5897 (12.24%) from 2010). The observed growth of 27.13% was 2.22-fold greater than the rate expected by population changes over the period 2010-2017.

CONCLUSION: The number of patients on medication for glaucoma and ocular hypertension in Scotland is increasing. The rate of increase cannot be explained by changes in the size and age structure of the population alone.

Database: Medline

23. Establishing an allied health professional delivered selective laser trabeculoplasty service in Scotland.

Author(s): Chadwick, Oliver; Chia, Seen Nee; Rotchford, Alan

Source: Ophthalmic & physiological optics : the journal of the British College of Ophthalmic Opticians (Optometrists); May 2019; vol. 39 (no. 3); p. 216-223

Publication Date: May 2019

Publication Type(s): Journal Article

PubMedID: 30994202

Available at [Ophthalmic & physiological optics : the journal of the British College of Ophthalmic Opticians \(Optometrists\)](#) - from Wiley Online Library

Abstract:

PURPOSE: To describe the process of establishing a selective laser trabeculoplasty (SLT) service delivered by experienced allied health professionals (AHP) in a Scottish NHS Hospital Eye Service, and assess the safety and efficacy in comparison with SLT performed by ophthalmologists.

METHODS: A training scheme for AHPs who were experienced in extended roles within the glaucoma service was developed, consisting of supervised training by a consultant ophthalmologist

specialising in glaucoma leading to the AHPs independently delivering SLT. A prospective audit of consecutive SLT procedures performed by AHPs between November 2015 and April 2017 was performed. Data were analysed and compared to a previous intradepartmental audit of SLT performed by ophthalmologists (consultants and trainees).

RESULTS: A total of 325 eyes of 208 patients underwent SLT, of which 117 patients had bilateral SLT in a single session. The overall rate of complications was 3.9%, however these were minor and/or self-limiting (this compared to a 3.8% complication rate in the ophthalmologist delivered SLT series). The rate of intraocular pressure (IOP) spike was 0.3%, compared to 1.4% in the ophthalmologist delivered SLT series. Mean IOP at listing was 20.9 ± 5.1 mmHg, 17.3 ± 4.5 mmHg at 3 months post SLT and 17.6 ± 3.7 mmHg at 12 months—a median reduction of 16.7% at 3 months and 17.4% at 12 months. There was no statistically significant difference between the percentage reduction in IOP in the AHP and ophthalmologist delivered SLT groups at 3 or 12 months.

CONCLUSIONS: This is the first service of its kind in Scotland and the outcomes of this study demonstrate that the AHP delivered SLT service is at least as safe as the previous ophthalmologist delivered SLT service. The data demonstrate a similar efficacy between AHP and ophthalmologist delivered SLT. In the face of increasing demand and workload, this is a practical model in service commissioning to free up medical clinicians for more complex glaucoma management.

Database: Medline

24. Prevalence of childhood ocular morbidity in a peri-urban setting in Bangladesh: a community-based study

Author(s): Hussain, AHME; Roy, T; Ferdousi, N; Sen, U

Source: Public Health; May 2019; vol. 170 ; p. 103

Publication Date: May 2019

Publication Type(s): Journal Article

Abstract:

Objectives: To test a model of integrated pediatric eye care delivery and examine the prevalence and factors associated with childhood ocular morbidity in a peri-urban setting in Bangladesh. Study design: Cross-sectional, population-based study.

Methods: The study was conducted in three phases among children aged ≤ 15 years. Trained community health workers (CHWs) conducted awareness intervention and identified children with ocular problems. These children were then referred to the base hospital for examination and treatment by ophthalmologists. A pediatric ophthalmologist further examined the children with complicated eye diseases and ensured treatment at a tertiary public eye hospital. Awareness, referral patterns, and health-seeking behavior were also examined. All data were analyzed statistically using Statistical Package for Social Sciences.

Results: CHWs screened 33,549 eligible children and identified 1887 cases with ocular morbidity. The prevalence of ocular morbidity and childhood blindness were 5.63% (95% confidence interval [CI] = 5.27–6.16) and 0.060% (95% CI = 0.03–0.11), respectively. The most commonly observed ocular morbidities were refractive error (3.24%; 95% CI = 3.11–3.45), allergic eye conditions (1.2%; 95% CI = 0.74–1.27), and nasolacrimal duct obstruction (0.52%; 95% CI = 0.25–0.74). Blindness was more frequently seen in children aged < 5 years than in those aged 5–15 years ($\chi^2 = 7.25$; $P = 0.007$). The causes of blindness were corneal opacity, congenital eye anomaly, cataract, retinopathy of prematurity, and retinoblastoma. The prevalence of ocular morbidity was higher among older

children, boys, children with low parental education and income, and children from households dwelling in slums.

Conclusions: This study demonstrated that in a setting where screening and treatment for vision problems remain low, ocular morbidity among children could be easily identified through well-designed community-based screening programs involving appropriately trained CHWs. Community mobilization, awareness, and early detection of childhood eye diseases, with effective referral mechanisms for accessing appropriate care, are crucially important to improve service delivery.

Database: BNI

25. Aqueous shunts with mitomycin C versus aqueous shunts alone for glaucoma.

Author(s): Foo, Valencia Hui Xian; Htoon, Hla M; Welsbie, Derek S; Perera, Shamira A

Source: The Cochrane database of systematic reviews; Apr 2019; vol. 4 ; p. CD011875

Publication Date: Apr 2019

Publication Type(s): Research Support, Non-u.s. Gov't Research Support, N.i.h., Extramural Journal Article Systematic Review

PubMedID: 30999387

Available at [The Cochrane database of systematic reviews](#) - from Cochrane Collaboration (Wiley)

Abstract:

BACKGROUND: Glaucoma affects more than 70 million people worldwide, with about 10% being bilaterally blind, making it the leading cause of irreversible blindness globally. In patients with advanced glaucoma or those who have failed medical treatment without achieving adequate intraocular pressure (IOP) control, trabeculectomy (glaucoma filtration surgery where an ostium is created into the anterior chamber from underneath a partial thickness scleral flap to allow for aqueous flow out of the anterior chamber into the subconjunctival space forming a filtering bleb) and aqueous shunt surgery for more complex and refractory cases remain the mainstay therapies. Proliferation of fibrous tissue around an implanted aqueous shunt may block the diffusion of aqueous humour. Mitomycin C (MMC) is one of two commonly used adjunct antifibrotic agents used during aqueous shunt surgery to prevent proliferation of fibrous tissue. However, the effectiveness and safety of the use of intraoperative MMC during aqueous shunt surgery has not been established.

OBJECTIVES: To evaluate the effectiveness and safety of MMC versus no MMC used during aqueous shunt surgery for reducing IOP in primary and secondary glaucoma.

SEARCH METHODS: We searched the Cochrane Central Register of Controlled Trials (CENTRAL) (which contains the Cochrane Eyes and Vision Trials Register) (2018, Issue 2); Ovid MEDLINE; Embase.com; PubMed; Latin American and Caribbean Health Sciences Literature Database (LILACS); ClinicalTrials.gov and the World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP). We did not use any date or language restrictions in the electronic search for trials. We last searched the electronic databases on 13 February 2018.

SELECTION CRITERIA: We included randomized controlled trials (RCTs) in which one group of participants received MMC during aqueous shunt surgery and another group did not. We did not exclude studies based on outcomes.

DATA COLLECTION AND ANALYSIS: Two review authors independently reviewed titles and abstracts from the literature searches. We obtained full-text reports of potentially relevant studies and assessed them for inclusion. Two review authors independently extracted data related to study

characteristics, risk of bias, and outcomes. We used standard methodological procedures expected by Cochrane.

MAIN RESULTS: We included five RCTs, with a total of 333 eyes with glaucoma randomized, and identified two ongoing trials. All included trials examined the effect of MMC versus no MMC when used during aqueous shunt surgery for glaucoma. The trials included participants with different types of uncontrolled glaucoma. One study was conducted in China, one in Saudi Arabia, two in the USA, and one study was a multicenter study conducted in Brazil, Canada, Scotland, and USA. We assessed all trials as having overall unclear risk of bias due to incomplete reporting of study methods and outcomes; two of the five trials were reported only as conference abstracts. None of the included trials reported mean decrease from baseline in IOP; however, all five trials reported mean IOP at 12 months post-surgery. At 12 months, the effect of MMC on mean IOP compared with no MMC was unclear based on a meta-analysis of trials (mean difference -0.12 mmHg, 95% CI -2.16 to 2.41; low-certainty evidence). Two trial did not report sufficient information to include in meta-analysis, but reported that mean IOP was lower in the MMC group compared with the no MMC group at 12 months. None of the included trials reported mean change from baseline in visual acuity; however, one trial reported lower mean LogMAR values (better vision) in the MMC group than in the no MMC group at 12 months post-surgery. None of the included studies reported the proportion of participants with stable best-corrected visual acuity. Three trials reported that loss of vision was not significantly different between groups (no data available for meta-analysis). None of the included studies reported the proportion of participants with a postoperative hypertensive phase, which is defined as IOP > 21 mmHg within 3 months after surgery. Two trials reported adverse events (choroidal effusion, corneal edema, flat anterior chamber, and retinal detachment); however, due to small numbers of events and sample sizes, no clear difference between MMC and placebo groups was observed.

AUTHORS' CONCLUSIONS: We found insufficient evidence in this review to suggest MMC provides any postoperative benefit for glaucoma patients who undergo aqueous shunt surgery. Data across all five included trials were sparse and the reporting of study methods required to assess bias was inadequate. Future RCTs of this intervention should report methods in sufficient detail to permit assessment of potential bias and estimate target sample sizes based on clinically meaningful effect sizes.

Database: Medline

26. Changes in ocular signs and symptoms in patients switching from bimatoprost-timolol to tafluprost-timolol eye drops: an open-label phase IV study.

Author(s): Bourne, Rupert Richard Alexander; Kaarniranta, Kai; Lorenz, Katrin; Traverso, Carlo Enrico; Vuorinen, Jouni; Ropo, Auli

Source: BMJ open; Apr 2019; vol. 9 (no. 4); p. e024129

Publication Date: Apr 2019

Publication Type(s): Journal Article

PubMedID: 30944129

Available at [BMJ open](#) - from BMJ Journals

Available at [BMJ open](#) - from Europe PubMed Central - Open Access

Available at [BMJ open](#) - from HighWire - Free Full Text

Available at [BMJ open](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [BMJ open](#) - from Unpaywall

Abstract:

OBJECTIVES: Bimatoprost-timolol (bimatoprost 0.03%-timolol 0.5% fixed-dose combination [FDC]) and tafluprost-timolol (tafluprost 0.0015%-timolol 0.5% FDC) eye drops are currently the only topical intraocular pressure (IOP)-reducing therapies available as preservative-free (PF) prostaglandin and timolol FDC. The aim of this study was to investigate changes to ocular signs and symptoms when patients with ocular hypertension (OH) or open-angle glaucoma (OAG) switched from PF or benzalkonium chloride (BAK)-preserved bimatoprost-timolol to PF tafluprost-timolol eye drops. **DESIGN** This was a 12-week, open-label, phase IV study.

SETTING: Sixteen centres in Finland, Germany, Italy and the UK.

PARTICIPANTS: Patients with OH or OAG (IOP on medication ≤ 21 mm Hg), treated with PF or BAK-preserved bimatoprost-timolol for ≥ 4 weeks before screening, and presenting with conjunctival hyperaemia and ≥ 1 ocular symptom.

INTERVENTIONS: Patients were switched to PF tafluprost-timolol once daily in the treated eye(s).

PRIMARY AND SECONDARY OUTCOME MEASURES: The primary endpoints were change from screening to week 12 in conjunctival hyperaemia and worst ocular symptom. The secondary outcome measures were changes from screening in ocular signs (other than conjunctival hyperaemia) and symptoms at week 12.

RESULTS: Of 123 enrolled patients, 121 were included in the intention-to-treat dataset, of which all were Caucasian and 54.5% were female; 76 patients used BAK-preserved bimatoprost-timolol and 45 used PF drops. Conjunctival hyperaemia and severity of worst ocular symptom following switch to PF tafluprost-timolol significantly reduced from screening to week 12 in all patients ($p < 0.001$). The percentage of patients with ocular signs and symptoms was significantly reduced at week 12 compared with screening ($p < 0.001$). IOP was not affected by the change of treatment.

CONCLUSIONS: Switching from BAK-preserved or PF bimatoprost-timolol to tafluprost-timolol reduced both signs and symptoms of ocular surface disease with no clinically relevant effect on IOP. **TRIAL REGISTRATION NUMBER** EudraCT2014-005273-37; Results.

Database: Medline

27. Prevalence of optic disc haemorrhages in an elderly UK Caucasian population and possible association with reticular pseudodrusen-the Bridlington Eye Assessment Project (BEAP): a cross-sectional study (2002-2006).

Author(s): Wilde, Craig; Poostchi, Ali; Narendran, Rajesh; MacNab, Hamish K; Hillman, Jonathan G; Alexander, Phillip; Amoaku, Winfried M; Vernon, Stephen A

Source: Eye (London, England); Apr 2019; vol. 33 (no. 4); p. 580-586

Publication Date: Apr 2019

Publication Type(s): Journal Article

PubMedID: 30385878

Abstract:

AIMS: To determine disc haemorrhage (DH) prevalence in an elderly UK population-the Bridlington Eye Assessment Project (BEAP).

METHODS: Thirty-degree fundus photographs (3549 participants ≥ 65 years) were graded for DH/macula changes. Glaucoma evaluation included Goldmann tonometry, 26-point suprathreshold visual-fields and mydriatic slit-lamp assessment for glaucomatous optic neuropathy.

RESULTS: In all, 3548 participants with photographs in at least one eye. DHs were present in 53 subjects (1.49%), increasing from 1.17% (65- to 69-year age group) to 2.19% (80- to 84-year age group), $p = 0.06$. DH was found in 9/96 (9.38%) right eyes (RE) with open-angle glaucoma (OAG). Two of twelve RE (16.67%) with normal-tension glaucoma (NTG) had DH. Prevalence in eyes without glaucoma was lower (32/3452, [0.93%]). Reticular pseudodrusen (RPD) occurred in 170/3212 (5.29%) subjects without DH, and 8/131 subjects (6.11%) with OAG. Twenty eyes had NTG, two of whom had RPD (10%) ($p = 0.264$). Within a logistic regression model, DH was associated with glaucoma (OR 10.2, 95% CI 5.32-19.72) and increasing age (OR 1.05, 95% CI 1.00-1.10, $p = 0.03$). DH was associated with RPD ($p = 0.05$) with univariate analysis but this was not statistically significant in the final adjusted model. There was no significant association with gender, diabetes mellitus (DM), hypertension treatment or Age-related Macular Degeneration (AMD) grade.

CONCLUSION: DH prevalence is 1.5% in those over 65 years old and significantly associated with glaucoma and increasing age. There appears to be increased RPD prevalence in eyes with DH and NTG with age acting as a confounding factor. Larger studies are required to fully assess the relationship and investigate a possible shared aetiology of choroidal ischaemia.

Database: Medline

28. Laser peripheral iridotomy for the prevention of angle closure: a single-centre, randomised controlled trial

Author(s): He, Mingguang; Jiang, Yuzhen; Huang, Shengsong; Chang, Dolly S; Munoz, Beatriz; Aung, Tin; Foster, Paul J; Friedman, David S

Source: The Lancet; Apr 2019; vol. 393 (no. 10181); p. 1609

Publication Date: Apr 2019

Publication Type(s): Evidence Based Healthcare Journal Article

Available at [The Lancet](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract:

Background: Primary angle-closure glaucoma affects 20 million people worldwide. People classified as primary angle closure suspects have a higher but poorly quantified risk of developing glaucoma. We aimed to assess efficacy and safety of laser peripheral iridotomy prophylaxis against primary angle-closure glaucoma in Chinese people classified as primary angle closure suspects. Methods In this randomised controlled trial, bilateral primary angle closure suspects aged 50–70 years were enrolled at the Zhongshan Ophthalmic Center, a tertiary specialised hospital in Guangzhou, China. Eligible patients received laser peripheral iridotomy in one randomly selected eye, with the other remaining untreated. The primary outcome was incident primary angle closure disease as a composite endpoint of elevation of intraocular pressure, peripheral anterior synechiae, or acute angle-closure during 72 months of follow-up in an intention-to-treat analysis between treated eyes and contralateral controls. This trial is registered with the ISRCTN registry, number ISRCTN45213099. Findings Of 11 991 screened individuals, 889 individuals were randomly assigned from June 19, 2008 (889 treated and 889 untreated eyes). Incidence of the primary outcome was 4.19 per 1000 eye-years in treated eyes compared with 7.97 per 1000 eye-years in untreated eyes (hazard ratio 0.53; 95% CI 0.30–0.92; $p=0.024$). A primary outcome event occurred in 19 treated eyes and 36 untreated eyes with a statistically significant difference using pair-wise analysis ($p=0.0041$). No serious adverse

events were observed during follow-up. Interpretation Incidence of angle-closure disease was very low among individuals classified as primary angle closure suspects identified through community-based screening. Laser peripheral iridotomy had a modest, albeit significant, prophylactic effect. In view of the low incidence rate of outcomes that have no immediate threat to vision, the benefit of prophylactic laser peripheral iridotomy is limited; therefore, widespread prophylactic laser peripheral iridotomy for primary angle-closure suspects is not recommended. Funding Fight for Sight, the Sun Yat-Sen University 5010 Project Fund, Moorfields Eye Charity, and the National Natural Science Foundation of China.

Database: BNI

29. Prophylactic laser iridotomy in primary angle-closure suspects

Author(s): Weinreb, Robert N; Moghimi, Sasan

Source: The Lancet; Apr 2019; vol. 393 (no. 10181); p. 1572

Publication Date: Apr 2019

Publication Type(s): Commentary (response to 28)

Available at [The Lancet](#) - from ProQuest (Health Research Premium) - NHS Version

Abstract:[...]the study had a large sample size and long follow-up, which are needed when studying a disease with a low event rate. In view of the low incidence rate of outcomes that have no immediate threat to vision, laser peripheral iridotomy was found to be of little benefit in this trial. [...]it can be argued that laser peripheral iridotomy should only be offered to those with the highest risk of developing primary angle-closure glaucoma. Detecting individuals who already have primary angle-closure glaucoma and treating to prevent further optic nerve damage seems reasonable. [...]prophylactic laser peripheral iridotomy also seems appropriate for primary angle-closure suspects who require repeated dilated funduscopy, including those with retinal disease or diabetes.

Database: BNI

30. Selective laser trabeculoplasty versus eye drops for first-line treatment of ocular hypertension and glaucoma (LiGHT): a multicentre randomised controlled trial

Author(s): Gazzard, Gus; Konstantakopoulou, Evgenia; Garway-Heath, David; Garg, Anurag; Vickerstaff, Victoria; Hunter, Rachael; Ambler, Gareth; Bunce, Catey; Wormald, Richard; Nathwani, Neil; Barton, Keith; Rubin, Gary; Buszewicz, Marta; Bourne, Rupert; Broadway, David; Davis, Amanda; Jayaram, Hari; Jiang, Yuzhen; Lim, Sheng; Liput, Joanna; Manners, Timothy; Morris, Stephen; Strouthidis, Nicholas; Wilson, Sarah; Zhu, Haogang

Source: The Lancet; Apr 2019; vol. 393 (no. 10180); p. 1505

Publication Date: Apr 2019

Publication Type(s): Evidence Based Healthcare Journal Article

Available at [The Lancet](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [The Lancet](#) - from Unpaywall

Abstract:

Background: Primary open angle glaucoma and ocular hypertension are habitually treated with eye drops that lower intraocular pressure. Selective laser trabeculoplasty is a safe alternative but is rarely used as first-line treatment. We compared the two. Methods In this observer-masked,

randomised controlled trial treatment-naive patients with open angle glaucoma or ocular hypertension and no ocular comorbidities were recruited between 2012 and 2014 at six UK hospitals. They were randomly allocated (web-based randomisation) to initial selective laser trabeculoplasty or to eye drops. An objective target intraocular pressure was set according to glaucoma severity. The primary outcome was health-related quality of life (HRQoL) at 3 years (assessed by EQ-5D). Secondary outcomes were cost and cost-effectiveness, disease-specific HRQoL, clinical effectiveness, and safety. Analysis was by intention to treat. This study is registered at controlled-trials.com (ISRCTN32038223). Findings Of 718 patients enrolled, 356 were randomised to the selective laser trabeculoplasty and 362 to the eye drops group. 652 (91%) returned the primary outcome questionnaire at 36 months. Average EQ-5D score was 0.89 (SD 0.18) in the selective laser trabeculoplasty group versus 0.90 (SD 0.16) in the eye drops group, with no significant difference (difference 0.01, 95% CI -0.01 to 0.03; p=0.23). At 36 months, 74.2% (95% CI 69.3–78.6) of patients in the selective laser trabeculoplasty group required no drops to maintain intraocular pressure at target. Eyes of patients in the selective laser trabeculoplasty group were within target intracocular pressure at more visits (93.0%) than in the eye drops group (91.3%), with glaucoma surgery to lower intraocular pressure required in none versus 11 patients. Over 36 months, from an ophthalmology cost perspective, there was a 97% probability of selective laser trabeculoplasty as first treatment being more cost-effective than eye drops first at a willingness to pay of £20 000 per quality-adjusted life-year gained. Interpretation Selective laser trabeculoplasty should be offered as a first-line treatment for open angle glaucoma and ocular hypertension, supporting a change in clinical practice. Funding National Institute for Health Research, Health and Technology Assessment Programme.

Database: BNI

31. Laser trabeculoplasty as first-line glaucoma treatment

Author(s): Young, Jonathan W; Caprioli, Joesph

Source: The Lancet; Apr 2019; vol. 393 (no. 10180); p. 1479

Publication Date: Apr 2019

Publication Type(s): Commentary

Available at [The Lancet](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [The Lancet](#) - from Unpaywall

Abstract: Selective laser trabeculoplasty, which has the advantage of causing less target tissue disruption, superseded argon laser trabeculoplasty as the laser treatment of choice.⁴ Randomised trials compared selective laser trabeculoplasty and latanoprost,⁵ and established selective laser trabeculoplasty as a safe and effective first-line treatment. [...]there might be unintended consequences of treating patients with selective laser trabeculoplasty and following them up off medication. In an ageing population, as glaucoma is becoming more prevalent and medical costs are escalating, the LiGHT trial provides evidentiary support for ophthalmologists to consider selective laser trabeculoplasty as first-line treatment for ocular hypertension and open-angle glaucoma.

Database: BNI

32. The relationship between self-reported sensory impairments and psychosocial health in older adults: a 4-year follow-up study using the English Longitudinal Study of Ageing

Author(s): Yu, A; Liljas, AEM

Source: Public Health; Apr 2019; vol. 169 ; p. 140

Publication Date: Apr 2019

Publication Type(s): Journal Article

Abstract:

Objectives: To explore cross-sectional and longitudinal relationships between self-reported hearing and vision impairments and self-rated health, quality of life (QoL) and depressive symptoms at 4-year follow-up. Study design The study involved cross-sectional and longitudinal analyses with 4-year follow-up using data from the English Longitudinal Study of Ageing.

Methods: Community-dwelling adults (n = 3931) aged ≥50 years from the English Longitudinal Study of Ageing participated in this study. Self-reported hearing and vision were defined as good or poor. Self-rated health was treated as a dichotomous variable (good and poor health). QoL was based on the 19-item Critical Appraisal Skills Programme and treated as a continuous variable (score 0–57). Depressive symptoms were assessed using the eight-item Center for Epidemiologic Studies Depression Scale (CES-D8) and defined as CES-D≥3. Relationships between sensory impairments and self-rated health and depressive symptoms were analysed using logistic regression. Linear regression was used to assess the relationships between sensory impairments and QoL.

Results: In cross-sectional analyses, both self-reported hearing and vision impairment were positively associated with all outcomes assessed. In longitudinal analyses, self-reported poor hearing and vision were associated with increased risks of poor self-rated health (hearing: odds ratio [OR] 1.65, 95% confidence interval [CI] 1.32, 2.05; vision: OR 1.57, 95% CI 1.16, 2.12) and depressive symptoms (hearing: OR 1.35, 95% CI 1.07, 1.71; vision: OR 1.44, 95% CI 1.09, 1.90) after adjustment for sociodemographic and lifestyle factors, chronic illness, mobility limitations and cognition. Poor hearing and poor vision were not associated with reduced QoL after adjustment for covariates.

Conclusions: The findings stress the importance of identifying and addressing sensory impairments in older adults to improve their health and well-being.

Database: BNI

33. Conjunctival bleb compression as a treatment for hypotony post XEN45 implant in uveitic glaucoma.

Author(s): Yu, Jonathan Thur Sian; Au, Leon

Source: European journal of ophthalmology; Mar 2019 ; p. 1120672119836339

Publication Date: Mar 2019

Publication Type(s): Journal Article

PubMedID: 30862191

Abstract:

PURPOSE: Over-filtration and subsequent hypotony are recognised complications of penetrating glaucoma procedures, especially when augmented with antimetabolites. Patients with uveitis are especially at risk of hypotony and this can reduce the final acuity achieved, compromise surgical outcomes and adversely affect the inflammatory status. The incidence of hypotony following XEN45 implant insertion is higher for uveitic patients and we present a method of surgically addressing this hypotony with transconjunctival compression sutures that are placed over the overdraining XEN45 implant.

METHODS: We present a retrospective case series of consecutive uveitic glaucoma patients who had conjunctival compression sutures between 2015 and 2018 following XEN45 insertion, at the Manchester Royal Eye Hospital, UK. Two 9/0 nylon sutures were placed in a horizontal figure-of-

eight conformation transconjunctivally across the overdraining bleb: one directly over the XEN45 implant and one at the posterior limit of the implant in order to restrict flow.

RESULTS: Three patients underwent conjunctival compression sutures following XEN45 implant-related hypotony and all three had successful resolution of their hypotony and visual symptoms. No patients required long-term topical agents to control their intraocular pressure.

CONCLUSION: Conjunctival compression sutures are an effective option for addressing persistent hypotony following XEN45 implant insertion in patients with uveitic glaucoma.

Database: Medline

34. Impact of eye clinic liaison officers: a qualitative study in UK ophthalmology clinics.

Author(s): Llewellyn, Mark; Hilgart, Jennifer; Joshi, Puja; Williams, Aelwyn

Source: BMJ open; Mar 2019; vol. 9 (no. 3); p. e023385

Publication Date: Mar 2019

Publication Type(s): Journal Article

PubMedID: 30833312

Available at [BMJ open](#) - from BMJ Journals

Available at [BMJ open](#) - from Europe PubMed Central - Open Access

Available at [BMJ open](#) - from HighWire - Free Full Text

Available at [BMJ open](#) - from ProQuest (Health Research Premium) - NHS Version

Available at [BMJ open](#) - from Unpaywall

Abstract:

OBJECTIVES: To explore the impact of eye clinic liaison officers (ECLOs, also known as sight loss advisors) on the processes, functions and quality of ophthalmology clinics through the experiences of ophthalmology staff in the UK.

DESIGN: Qualitative study.

SETTING: UK hospital ophthalmology clinics.

PARTICIPANTS: Health and social care professionals in the UK.

RESULTS: ECLOs who had a presence in hospital ophthalmology clinics were seen as valuable in streamlining processes within the clinic, particularly in relation to the certification of visual impairment process, and providing continuity of care for patients when they were discharged from medical treatment. ECLOs also saved staff time in the clinic, as they were often responsible for providing emotional and practical support for patients living with sight loss.

CONCLUSIONS: ECLOs are well placed in ophthalmology clinics. They can relieve pressure on clinical staff by taking on information giving and referring duties, allowing other staff to focus on their clinical responsibilities. The impact of ECLOs may depend on efficient communication with the clinical team, being trusted by other staff and having a good knowledge of local and national sight loss support services outside of the hospital setting. Further research could enhance our understanding of how much time and associated costs ECLOs substitute in the ophthalmology clinic.

Database: Medline

35. Rehabilitation needs and activity limitations of adults with a visual impairment entering a low vision rehabilitation service in England.

Author(s): Macnaughton, Jane; Latham, Keziah; Vianya-Estopa, Marta

Source: Ophthalmic & physiological optics : the journal of the British College of Ophthalmic Opticians (Optometrists); Mar 2019; vol. 39 (no. 2); p. 113-126

Publication Date: Mar 2019

Publication Type(s): Research Support, Non-u.s. Gov't Journal Article

PubMedID: 30776848

Available at [Ophthalmic & physiological optics : the journal of the British College of Ophthalmic Opticians \(Optometrists\)](#) - from Wiley Online Library

Abstract:

PURPOSE: To evaluate outcome measures of the Participation and Activity Inventory (PAI) in a sample of adults with acquired visual impairment entering vision rehabilitation. Both Priority Scores, indicating level of rehabilitative need, and Person Measures, indicating goal difficulty, were considered.

METHODS: Participants were newly registered adults with visual impairment within Leicestershire, United Kingdom. The importance and difficulty of 48 goals of the PAI were assessed, as were demographic factors, clinical visual function (visual acuity, contrast sensitivity, reading function) and psychosocial function (adjustment to visual loss, depression, anxiety and fear of falling). Priority scores were calculated as the product of importance and difficulty of each goal. All questionnaires were Rasch analysed, and person and item measures of perceived difficulty with goals were derived.

RESULTS: Sixty people (mean age \pm S.D. = 75.8 \pm 13.8 years) took part. PAI goals with greatest rehabilitative need were reading (6.82 \pm 2.91), mobility outdoors (6.55 \pm 3.92), mobility indoors within an unfamiliar environment (5.52 \pm 3.93) and writing (5.27 \pm 3.02). Greater rehabilitative need was associated with younger age (β = -0.46, p < 0.001), and with higher depressive symptomatology (β = 0.35, p < 0.01; model R² 34%). Goals with greatest difficulty were mending clothing (-1.95 \pm 0.35 logits) and hobbies and crafts (-1.32 \pm 0.23 logits). Greater difficulty was associated with higher depressive symptomatology (β = 0.39, p < 0.001), lower visual acuity (β = 0.42, p < 0.001) and lower adjustment of visual loss (β = 0.31, p < 0.01; model R² 53%).

CONCLUSIONS: Key rehabilitation needs for adults at entry to services require both optical and non-optical interventions. As rehabilitative need was not associated with the level of visual impairment, eyecare professionals should not wait until the end of medical treatment before referral for support. Similarly, rehabilitative need was associated with younger age, indicating the importance to refer younger people with sight loss at an early stage. The use of structured assessment, such as the PAI, ensures goals that have an impact upon quality of life are specifically identified. Depression screening on entry to rehabilitation is relevant as it predicts both perceived difficulty and rehabilitative need.

Database: Medline

36. Transconjunctival Compression Sutures for an Overfiltering Bleb Following Subconjunctival Gel Stent Insertion for Glaucoma.

Author(s): Karaconji, Tanya; Naqvi, Salman; Mercieca, Karl

Source: Journal of glaucoma; Mar 2019; vol. 28 (no. 3); p. e41

Publication Date: Mar 2019

Publication Type(s): Journal Article

PubMedID: 30817499

Abstract: Low intraocular pressure and hypotony secondary to overfiltration is a recognized complication after trabeculectomy, particularly when augmented with antimetabolites such as 5-fluorouracil and mitomycin C. The relatively recent introduction of minimally invasive glaucoma surgery such as the ab interno XEN 45 (Allergan, Ireland) subconjunctival gel implant has heralded a new era of glaucoma drainage surgery where postoperative complications may be less and surgical recovery quicker. However, any effective glaucoma filtering procedure will always carry the risk of inducing hypotony. We describe the case of an 84-year-old white gentleman who underwent right eye XEN implantation for refractory primary open-angle glaucoma who subsequently developed persistent hypotony secondary to an overfiltering bleb. The complication was successfully treated with a modified transconjunctival bleb compression suture technique. To our knowledge, this has not been previously described in the literature and may help the glaucoma specialist deal effectively and relatively noninvasively with this rare but potentially challenging minimally invasive glaucoma surgery complication.

Database: Medline

37. Action on neovascular age-related macular degeneration (nAMD): recommendations for management and service provision in the UK hospital eye service.

Author(s): Gale, Richard P; Mahmood, Sajjad; Devonport, Helen; Patel, Praveen J; Ross, Adam H; Walters, Gavin; Downey, Louise; El-Sherbiny, Samer; Freeman, Mary; Berry, Simon; Jain, Nitin

Source: Eye (London, England); Mar 2019; vol. 33 ; p. 1-21

Publication Date: Mar 2019

Publication Type(s): Journal Article Review

PubMedID: 30926932

Available at [Eye \(London, England\)](#) - from Unpaywall

Abstract: This report by a group of UK retina specialists and health professionals considers best practice recommendations for the management of sight-threatening neovascular age-related macular degeneration (nAMD), based on collective experience and expertise in routine clinical practice. The authors provide an update for ophthalmologists, allied healthcare professionals and commissioners on practice principles for optimal patient care and service provision standards. Refinement of care pathways for nAMD has improved access to intravitreal anti-vascular endothelial growth factor therapy but there are still variations in care and reported outcomes between clinic centres. Innovative organisational models of service provision allow providers to better match capacity with increasing demand. The authors review the recent NICE guideline for diagnosis and management of AMD, considerations for switching therapies and stopping treatment and need for regular monitoring of non-affected fellow eyes in patients with unilateral nAMD. Actions for delivery of high-quality care and to improve long-term patient outcomes are discussed. Local pathways need to detail nAMD target time to treat, maintenance of review intervals to ensure proactive treatment regimens are delivered on time and appropriate discharge for patients deemed low risk or no longer benefiting from treatment. Actual visual acuity outcomes achieved and maintenance of the level of vision when disease stability is achieved are considered good measures for judging the quality of care in the treatment of patients with nAMD. Robust community referral pathways must be in place for suspected reactivation of choroidal neovascularisation and rapid referral for second eye involvement. Practical considerations for intravitreal injection therapy are outlined.

Database: Medline

38. Intravitreal Ranibizumab for the Treatment of Visual Impairment Due to Choroidal Neovascularization Associated with Rare Diseases: Cost-Effectiveness in the UK.

Author(s): McCarthy, Grant; Fenu, Elisabetta; Bennett, Natalie; Almond, Chrissy

Source: Advances in therapy; Mar 2019; vol. 36 (no. 3); p. 632-644

Publication Date: Mar 2019

Publication Type(s): Journal Article

PubMedID: 30726549

Abstract:

INTRODUCTION: This study sought to determine the cost-effectiveness of intravitreal ranibizumab compared with best supportive care (BSC; considered to be no active treatment) for the treatment of visual impairment due to choroidal neovascularization (CNV) associated with causes other than neovascular age-related macular degeneration (nAMD) and pathologic myopia (PM) in a UK setting.

METHODS: An individual patient-level simulation model was developed to estimate the lifetime costs and quality-adjusted life years (QALYs) of ranibizumab vs. BSC. Regression analyses, performed on patient-level data collected within the pivotal phase III MINERVA trial, modelled visual acuity (VA) progression while patients remained on treatment. Patient utilities were modelled as a function of VA in both eyes and resource use estimates were based on trial data or the literature. Costs were evaluated from the perspective of the UK National Health Service and personal social services, with future costs and health outcomes discounted at 3.5% per annum. Sensitivity and scenario analyses were conducted.

RESULTS: The incremental cost-effectiveness ratio for intravitreal ranibizumab was £1363 per QALY compared to BSC and was associated with an incremental benefit of 1.06 QALYs and an incremental cost of £1444 per patient. Drug and administration costs of intravitreal ranibizumab were offset by the prevention of the development of blindness and its associated costs, while the increase in benefits was driven by a reduction in mortality risk and an improved health-related quality of life attributed to an improvement in VA. The findings were robust to a range of sensitivity analyses and ranibizumab consistently remained cost-effective at a willingness-to-pay threshold of £20,000-30,000 per QALY gained for all sensitivity analyses.

CONCLUSION: Intravitreal ranibizumab is a highly cost-effective intervention for the treatment of CNV due to causes other than nAMD and PM as it delivers substantial QALY gains to patients while making cost savings vs. BSC.

FUNDING: Novartis Pharmaceuticals UK Ltd.

Database: Medline

39. Idiopathic intracranial hypertension VISION (venous intervention versus shunting in IIH for optic nerve disc swelling) trial: patient perspective questionnaire.

Author(s): Chandran, Arun; Pulhorn, Heinke; McMahon, Catherine

Source: British journal of neurosurgery; Feb 2019; vol. 33 (no. 1); p. 71-75

Publication Date: Feb 2019

Publication Type(s): Video-audio Media Journal Article

PubMedID: 28934871

Abstract:

INTRODUCTION: Headaches, visual problems and tinnitus are symptoms of Idiopathic Intracranial Hypertension (IIH) which resolve with reduction of CSF pressure. Impaired cranial venous outflow has been implicated in the pathogenesis and there is evidence of good treatment results in IIH using venous sinus stenting. We are currently initiating a multi-centre randomised controlled trial, the VISION study (Venous Intervention versus Shunting in IIH for Optic Disc Swelling) comparing radiological (venous sinus stenting) to surgical intervention (CSF shunting). As part of the preparations for VISION we made a basic questionnaire available to members of the website IIH UK (www.iih.org.uk).

METHODS: 10-point questionnaire pertaining to IIH diagnosis, symptoms and management using www.surveymonkey.com .

RESULTS: 250 questionnaires were returned. 95.6% of respondents were female, mostly ≤ 40 years of age. 70% were diagnosed in the last 5 years, but only 35% were diagnosed less than a year after onset of symptoms. 59.4% of patients had not undergone any radiological/surgical intervention, 34.9% had had CSF diversion, 3.6% venous stenting and 2.0% had stent plus shunt. 16.8% indicated their lives were most affected by tinnitus and 18.1% by visual problems, but 49.6% said they were most affected by their headaches. 81% of patients indicated they would be happy to participate in a randomised trial comparing the two treatment options of venous stenting and CSF shunting.

CONCLUSION: IIH patients want to be actively involved in their treatment and are favourably disposed towards clinical research. Variation exists in treatment modalities offered. There are individual differences regarding impact of symptoms.

Database: Medline

40. Cost-effectiveness of fluocinolone acetonide implant (ILUVIEN®) in UK patients with chronic diabetic macular oedema considered insufficiently responsive to available therapies.

Author(s): Pochopien, Michal; Beiderbeck, Annette; McEwan, Phil; Zur, Richard; Toumi, Mondher; Aballéa, Samuel

Source: BMC health services research; Jan 2019; vol. 19 (no. 1); p. 22

Publication Date: Jan 2019

Publication Type(s): Journal Article

PubMedID: 30626376

Available at [BMC health services research](#) - from BioMed Central

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Abstract:

BACKGROUND: Diabetic macular oedema (DMO) may lead to visual loss and blindness. Several pharmacological treatments are available on the National Health Service (NHS) to United Kingdom patients affected by this condition, including intravitreal vascular endothelial growth factor inhibitors (anti-VEGFs) and two types of intravitreal steroid implants, releasing dexamethasone or

fluocinolone acetonide (FAc). This study aimed to assess the value for money (cost-effectiveness) of the FAc 0.2 µg/day implant (ILUVIEN®) in patients with chronic DMO considered insufficiently responsive to other therapies.

METHODS: We developed a Markov model with a 15-year time horizon to estimate the impact of changes in best-corrected visual acuity in DMO patients on costs and quality-adjusted life years. The model considered both eyes, designated as the "study eye", defined at model entry as phakic with an ongoing cataract formation or pseudophakic, and the "fellow eye". The model compared the FAc 0.2 µg/day implant with a 700 µg dexamethasone implant (pseudophakic patients only) or with usual care, defined as a mixture of laser photocoagulation and anti-VEGFs (phakic and pseudophakic patients). Costs were estimated from the perspective of the NHS and Personal Social Services; full NHS prices were used for drugs.

RESULTS: In patients who were pseudophakic at baseline, at 36 months, the FAc implant provided an additional gain of 4.01 and 3.64 Early Treatment Diabetic Retinopathy Study (ETDRS) letters compared with usual care and the dexamethasone implant, respectively. Over the 15-year time horizon, this translated into 0.185 additional quality-adjusted life years (QALYs) at an extra cost of £3066 compared with usual care, and 0.126 additional QALYs at an extra cost of £1777 compared with dexamethasone. Thus, incremental cost-effectiveness ratios (ICERs) were £16,609 and £14,070 per QALY gained vs. usual care and dexamethasone, respectively. In patients who were phakic at baseline, the FAc 0.2 µg/day implant provided an additional gain of 2.96 ETDRS letters at 36 months compared with usual care, which, over 15 years, corresponded to 0.11 additional QALYs at an extra cost of £3170, resulting in an ICER of £28,751 per QALY gained.

CONCLUSION: The FAc 0.2 µg/day implant provided good value for money compared with other established treatments, especially in pseudophakic patients.

Database: Medline

