OBJECTIVES: Limited research has been conducted to evaluate the humanitarian and economic burden of age-related macular degeneration (AMD). A multi-country, cross-sectional study was conducted to examine the burden of bilateral neovascular AMD (NV-AMD) on visual impairment, quality of life (QOL), and vision-related functioning (VF), and explore the relationship among these outcomes. METHODS: We surveyed 401 bilateral NV-AMD patients recruited from retina specialists and 471 elderly non-AMD (control) patients from general practitioners in France, Germany, Spain, UK and Canada. Patients completed a telephone survey including a set of validated instruments: the National Eye Institute Visual Function Questionnaire (NEI VFQ-25), the EuroQol (EQ-5D), and the Hospital Anxiety and Depression Scale (HADS). Physicians recorded visual acuity (VA) and treatment information. Multivariate regression models were utilized in the analysis. RESULTS: Based on their better eye VA, NV-AMD patients were categorized as having normal VA (>20/40, 13%), mildly impaired VA (20/40 to >20/80, 21%), moderately impaired VA (20/80 to >20/200, 28%), severely impaired VA (20/200 to >20/400, 18%), and near blindness (<20/400, 19%). They reported a decremented mean VF (NEI VFQ summary scale score) from 62.4 (normal VA) to 39.4 (near blindness) and an incremental mean depression symptom (HADS depression subscale score) from 5.5 (normal VA) to 8.5 (near blindness) (p < 0.001), while control subjects (all with better eye normal VA) reported substantially better VF (mean NEI VFQ score of 89.1) and fewer depression symptoms (mean HADS depression score of 4.1). However, no discernable trend was observed in EQ-5D (a general QOL measure) or HADS anxiety subscale scores across VA impairment level. CONCLUSIONS: Vision-specific QOL measures are important in capturing the relationship between vision loss and QOL in NV-AMD patients. Consistent with the literature, greater depression symptoms and lower VF were observed in AMD patients with more severe vision loss.

PEY22 MEDICATION ADHERENCE AND HEALTH CARE COSTS WITH INTRODUCTION OF LATANOPROST THERAPY FOR GLAUCOMA IN A MEDICARE MANAGED CARE POPULATION
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OBJECTIVES: Latanoprost, a prostaglandin inhibitor, is being increasingly used in therapeutic management of glaucoma. However, scant literature exists examining the cost and outcomes ramifications of latanoprost. This study examined the medication use behavior (medication related adherence and persistence rates) and costs associated with the introduction of latanoprost therapy in an older population (aged 65 and above) enrolled in Medicare. METHODS: The study employed a retrospective observational cohort design and used administrative claims data from a Medicare HMO, which offered complete coverage to enrollees, including prescription benefit. The case group consisted of 100 patients with glaucoma who began latanoprost therapy. The control group consisted of 168 enrollees with glaucoma, and who started any other therapy other than latanoprost. Both groups were followed for one year before and after initiation of therapy. Bivariate and multivariate techniques incorporating health care utilization in the year prior to start of new therapy were utilized to determine the study outcomes. RESULTS: Introduction of latanoprost therapy was associated with significantly higher medication persistence and adherence rates as compared to patients starting any other glaucoma medication (p < 0.01). Further, there were no additional increases in total health care costs in the entire population associated with the introduction of latanoprost therapy, after adjusting for group and time effects, as well as other confounders (p > 0.05). CONCLUSIONS: Latanoprost therapy offered improved medication use behavior in older adults with glaucoma and did not increase overall health care costs in this population. Long-term management with latanoprost therapy may offer significant cost-savings for glaucoma patients.

PEY23 VISION WITH RESTOR® VERSUS MONOFOCAL INTRAOCULAR LENSES (IOL) AFTER CATARACT SURGERY: RESULTS OF A POOLED ANALYSIS
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OBJECTIVE: Multifocal IOLs are a new development to restore distance and near vision after cataract surgery and liberate patients from spectacles. The following analysis compares vision benefits reported by patients after ReSTOR® versus monofocal IOL implants. METHODS: Data were pooled from two clinical trials conducted in Europe and the United States in patients undergoing cataract surgery. A total of 499 patients were implanted with ReSTOR®, a multifocal IOL, and 173 patients with a monofocal IOL (MoF). Patients self-reported vision on the well validated TyPE outcome questionnaire, comprising 67 items assessing all aspects of visual function, with and without spectacles, including distance and near vision. The TyPE was administered three-times: at baseline, after first-eye (EYE1) surgery, and following second-eye surgery (EYE2). A clinically significant TyPE response was defined as a change from baseline greater than one-half the baseline standard deviation. Cumulative response curves of the IOL groups were compared by a Kolmogorov-Smirnov (KS) test. RESULTS: Distance vision improved equally after ReSTOR® and MoF, and with and without spectacles. However, near vision after EYE1 improved more frequently (p < 0.0001) with ReSTOR® (75%) than MoF (57%), and improved even more after EYE2 (p < 0.0001): ReSTOR® (88%) versus MoF (62%). KS tests confirmed the superiority of ReSTOR® over MoF (p < 0.0001). The improvement of near vision without spectacles in the ReSTOR® group was equivalent to that with spectacles in the MoF group. CONCLUSIONS: ReSTOR® improves both distance and near vision, and allows most patients to abandon spectacles.

PEY24 METRIC PROPERTIES OF THE MACDQoL IN FRENCH, GERMAN, ITALIAN, AND AMERICAN POPULATIONS: AN INDIVIDUALISED QOL INSTRUMENT SPECIFIC TO MACULAR DISEASE (MD)
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OBJECTIVES: The MacDQoL showed good metric properties in previous UK work. The aim of this survey was to confirm these results in other countries and explore possibilities of subscales. METHODS: Two clinical trials were pooled (France 130; Germany 126, Italy 139; USA 412). Principal component analyses (Varimax) was conducted on baseline data from separate countries. Factorial structures were compared between countries and Cronbach’s alpha curves were used to identify subscale scores. Four groups of patients were identified according to vision acuity (VA) in their best eye (BE < 5/10; BE = 5/10) and worst eye (WE < 1/10; WE = 1/10) and were used to investigate (ANOVA) the sensitivity of MacDQoL to VA and compare with the NEI-VFQ-
25 generic visual function instrument. RESULTS: Mean age 76.8 years; 55.8% women. All had wet age-related MD (often progressing rapidly to severe visual impairment). Strong correlations between the 22 items (r > 0.50) and factor loadings >0.49 on a forced one-factor analysis supported use of an overall weighted impact score. Four subscales were indicated (Cronbach’s alpha >0.7) measuring: essential tasks, family/social life, activities/capabilities, and embarrassment. Patients with BE VA < 5/10 and WE VA < 1/10 produced significantly worse scores than those with BE VA >= 5/10 and WE VA >= 1/10 (MacDQoL p < 0.0001; NEI-VFQ-25 p < 0.0001; global scores). MacDQoL score variation coefficients were lower (better) than those of NEI-VFQ-25. CONCLUSIONS: The analysis confirmed the metric properties of the MacDQoL. The MacDQoL is associated with VA though, as expected, not as closely as the NEI-VFQ-25 visual function measure, but offers a broader individualised measure of the impact of MD on QoL.

HEALTH-RELATED QUALITY-OF-LIFE AND UTILITY IN DUTCH GLAUCOMA PATIENTS

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OBJECTIVES: To quantify health-related quality-of-life and utility in patients with ocular hypertension (OH) and primary open-angle glaucoma (POAG). METHODS: A cross-sectional survey was performed in 481 OH and POAG patients. Patients were invited to complete a questionnaire at home. The questionnaire contained the EQ-5D, the Visual Functioning Questionnaire (VFQ-25, range 0–100 (best)) and the Glaucoma Quality-of-Life questionnaire (GQL-15, range 0–75 (worst)). Patients were also asked to report on demographics, treatment history, treatment side-effects, and co-morbidities. Medical records were consulted for clinical parameters of disease severity, such as optic nerve head excavation and visual field loss. RESULTS: Data-collection was ongoing at the time of writing. The preliminary response rate is 79%. Here we report the results of the first 269 patients (56%) that participated. Mean age was 71.2 ± 10.4 years, 51% was male, and 91% was currently using glaucoma medication. Trabeculectomy was self-reported in 13.8% of the patients. VFQ-25 score was 85.2 ± 14.9 in OH patients (n = 110), 81.4 ± 15.5 in medically treated POAG patients (n = 132) and 63.4 ± 23.4 in POAG patients with a history of trabeculectomy (n = 27) (p < 0.001, unequal variance). GQL-15 score was 21.8 ± 9.7, 23.6 ± 11.1 and 34.8 ± 13.4 in these groups respectively (p < 0.001, unequal variance). EQ-5D utility from the Dutch value set was 0.88 ± 0.18, EQ-5D VAS was 75.9 ± 14.5; these values did not differ between groups. Preliminary analyses with visual field loss (Mean Deviation, n = 209) in the better eye indicated no correlation with EQ-5D utility (Spearman's rho r = 0.1, ns) or EQ-5D VAS (r = 0.08, ns), and weak correlations with VFQ-25 (r = 0.24, p < 0.001), and GQL-15 (r = -0.23, p < 0.001). CONCLUSIONS: These preliminary results indicate that vision-related quality-of-life is lower in more severe glaucoma. Further research of the relationship between disease severity and quality-of-life is currently being undertaken.

VISION BENEFIT FROM MULTI-FOCAL INTRAOCULAR LENS (IOL) AFTER CATARACT SURGERY ESTIMATED BY PRINCIPAL COMPONENTS ANALYSIS

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OBJECTIVE: Restoration of near and far vision function without recourse to spectacles remains a major goal of cataract surgery. ReSTOR®, a new multi-focal IOL, addresses this issue by improving both near and far vision without spectacles. The present analysis attempts to quantify the vision benefits experienced by patients. METHODS: Data from two clinical trials conducted in Europe and the United States, evaluating the safety and efficacy of ReSTOR® compared to a mono-focal IOL (MoF), were pooled for an analysis of 672 patients undergoing cataract extraction. The TyPE questionnaire was administered at baseline, and after both first-eye and second-eye surgery. The TyPE measures 67 items evaluating distance and near vision limitations, social activities, glare and halo problems, and patient satisfaction both with and without spectacles. Principal components analyses (PCA) of the TyPE questionnaire were performed at baseline, and after first-eye and second-eye surgery. Factorial coordinates were compared both within ReSTOR® and MoF (t-tests), and between visits (paired t-tests). RESULTS: The first PCA factor (F1) concerned limitations to overall visual function. The second factor (F22) concerned vision limitations without spectacles. Overall, significant improvements of visual function were seen between baseline and first-eye surgery (p < 0.0001), and between first-eye and second-eye surgery (p < 0.0001). At baseline, no significant differences were observed between treatment groups with respect to F1 or F2. Vision after first-eye surgery was significantly better in the ReSTOR® group than the MoF group on both factors (F1: p < 0.006; F2: p < 0.001). These differences between ReSTOR® and MoF were maintained and reinforced after second-eye surgery (F1: p < 0.001; F2: p < 0.001). CONCLUSIONS: Mono-focal and ReSTOR® IOLs both improved visual function, but only ReSTOR® improved the “vision without spectacles” factor because, of course, the mono-focal does not correct near vision.

DEVELOPMENT OF A QUESTIONNAIRE ASSESSING PATIENT SATISFACTION WITH EYE DROPS IN OCULAR HYPERTENSION AND GLAUCOMA

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OBJECTIVES: To describe the early development of a satisfaction questionnaire for eye drops used in ocular hypertension and glaucoma, developed in English and French simultaneously. METHODS: A conceptual model of expectation and satisfaction with eye drops was designed and used to guide patient (n = 15) and clinician (n = 4) interviews in French and UK English. Following review of the interview responses, versions of the questionnaire were simultaneously developed in two languages and then pilot-tested by six patients (three in France and three in the UK). RESULTS: After analysing the practitioners’ and the patients’ interviews, six potential domains were identified as having an impact on patients’ satisfaction regarding their eye drop treatments. These domains are: 1) Patient characteristics (16 items); 2) Treatment characteristics (4 items); 3) Relationship between patient and practitioner (10 items); 4) Patients’ feelings about their treatment (7 items); 5) Patients’ compliance (3 items); and 6) Interaction between the patient and the treatment (six items). The questionnaire was developed using patients’ verbatim comments in each language. After a cognitive debriefing performed with six patients (six French and six English), the wording and the domains of the questionnaire were confirmed in the two languages. CONCLUSION: The Eye Drops Satisfaction Questionnaire (EDSQ) is now available in French and UK English for use with patients receiving eye drops in ocular hyper-