CONCLUSIONS: It proved practical and feasible to use DCEs as a basis of quality weights within a programme specific QALY framework. Important areas for future research include developing profile measures into index measures, ensuring realistic designs that satisfy both statistical and respondent efficiency and anchoring at full health and death for use within a QALY framework.

PEY19

METHODS FOR A POPULATION-BASED INTERNATIONAL STUDY ON THE BURDEN OF ILLNESS OF NEOVASCULAR AGE-RELATED MACULAR DEGENERATION

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OBJECTIVES: Age-related macular degeneration (AMD) is the leading cause of blindness in the developed countries and accounted for 8.7 million cases of blindness around the world in 2002. Insufficient documentation of the impact of AMD on patients and their caregivers limits our understanding of the disease burden. The objective of this study is to document the humanistic and economic impact of exudative (wet) AMD on elderly subjects and compare it to a population group not affected by the disease. METHODS: This is a multinational, cross-sectional, observational study of self-reported functional health and disease burden among elderly subjects with and without subfoveal, exudative AMD. Each of the five participating countries, Canada, France, Germany, Spain, and the UK, will recruit 100 bilateral AMD patients and 100 controls. The primary objective is to compare the difference in humanistic impact as measured by the National Eye Institute Visual Function Questionnaire (NEI-VFQ25) between AMD patients and control group of similar age patients in general medical care. Other end points include assessment of the disparity in health-related quality of life burden due to wet AMD compared to non-AMD controls using the EuroQol and Hospital Anxiety and Depression Scale. Information on resource utilization and economic impact of AMD on patients and caregivers will be collected form physicians and patients. RESULTS: Data collection began in April 2005 and is expected to complete by November 2005. Final analysis will use standard bivariate and multivariate methods to explore relationships between severity of AMD and sociodemographic characteristics, health-related quality of life, depression, falls, and resource utilization variables. Summary analysis will be conducted in aggregate and by country. CONCLUSIONS: Analysis of a wide range of factors affecting AMD patients will provide useful guidance to health care providers, payers, and AMD support groups when determining the benefits of emerging therapies for wet AMD.

PEY20

IMPACT OF BEST AND WORST EYE VISUAL ACUITY ON VISION-SPECIFIC HEALTH-RELATED QUALITY OF LIFE AND UTILITY IN PATIENTS SUFFERING FROM AGE-RELATED MACULAR DEGENERATION

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OBJECTIVE: To assess the impact of best and worst eye visual acuity (VA) on vision-specific health-related quality of life (HRQol) and utility in patients with wet Age-Related Macular Degeneration (AMD). METHODS: A cross-sectional study was carried out in three European countries: France, Germany, Italy. Patients were enrolled when they visited a participating retina specialist. VA at diagnosis and at inclusion was collected. Two HRQol instruments were administered at the visit day: the National Eye Institute Visual Function Questionnaire—25 items (NEI-VFQ-25), and the Health Utility index (HUI). Patients were stratified into four groups of severity using two VA thresholds, 20/40 for the best eye (BE) and 20/200 for the worst eye (WE). Analysis of variance was performed on Qol and utility scores to estimate the impact of each eye adjusted on age, gender and country. RESULTS: 360 patients were included, mainly females (60%). Mean age and time since AMD diagnosis was respectively 77 years and 2.3 years. At inclusion, mean VA was 0.49 LogMar for BE and 1.0 LogMar for WE. HUIs mean scores decreased with severity from 0.62 to 0.39 for HUI3 and from 0.76 to 0.63 for HUI2. For both utility indexes, scores were mainly linked to BE VA. The NEI-VFQ-25 scale also exhibits a decreasing trend in the global score as VA decreases. Mean global score varied from 67.0 for the less severe group to 47.0 for the more severe one. Global NEI-VFQ-25 score was significantly affected by BE and WE VA (BE p < 0.0001; WE p = 0.0306). This contribution was also observed for the General vision, distance vision, driving, and mental health subscales. CONCLUSION: HRQol and utility scores decreased with the deterioration of VA. BE VA and WE VA is two independent factors of vision-related Qol. Vision preservation in both eyes should maintain Qol for AMD patients.

PEY21

UTILITY ASSESSMENT AMONG PATIENTS WITH DRY EYE DISEASE IN THE UK

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OBJECTIVES: To determine and compare utility values (patient preferences) associated with dry eye disease with other disease utilities. METHODS: Forty-four patients with mild to severe dry eye attending a tertiary specialist dry eye clinic in the UK were surveyed via interactive utility assessment software. Utility values were measured by the time trade-off (TTO), standard gamble (SG), and rating scale (RS) methods and adjusted to scores from 1.0 = perfect health to 0.0 = death. Patients reported utilities for: self-reported current dry eye status, self-reported current comorbidities, various dry eye severities, and binocular and monocular painful blindness. Visual functioning and ocular symptoms were assessed by the 25-Item National Eye Institute Visual Function Questionnaire and the Ocular Surface Disease Index. Patient dry eye severity was independently classified by patient and physician assessments. Pearson correlation coefficients were computed for patients’ self-reported dry eye utility and physician-reported severity. Agreement between self-reported and physician-reported patient severity was analyzed (Kappa). RESULTS: Patients reported higher utilities for their current dry eye condition than for monocular and binocular blindness (SG:0.34 > 0.60 > 0.51; TTO:0.67 > 0.43 > 0.38; RS:0.55 > 0.37 > 0.24). Using TTO, the mean score for asymptomatic dry eye (0.68) was similar to that for “some physical and role limitations with occasional pain” and severe dry eye requiring surgery scored (0.56) similarly to hospital dialysis (0.56–0.59). Utilities described by patients of other dry eye severity levels were similar for patients self-reported as mild to moderate versus those self-
reported as severe. For current dry eye condition, mean utilities for these groups were 0.72 for self-reported mild to moderate and 0.61 for self-reported severe. CONCLUSIONS: Utilities for dry eye were in the range of conditions accepted as lowering health utilities. Severe dry eye utilities were similar to those reported for dialysis and severe angina. Findings highlight the impact of dry eye on patients.

PEY2
DEVELOPMENT AND VALIDATION OF A COMPREHENSIVE PAINFUL SYMPTOM CHECKLIST ALLOWING PROVIDING A COMPLETE DESCRIPTION OF PAIN IN OPHTHALMIC DISEASES
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OBJECTIVE: Ophthalmologists have to face various acute or chronic painful diseases. They miss specific tools assessing ocular pain. Our objective was to develop and validate a tool to quickly and precisely describe patient’s complaint, measure pain intensity and elicit possible causes. METHODS: Different types of quantification and description of pain identified from the literature were proposed to 20 patients suffering from acute or chronic painful ophthalmic diseases. A questionnaire was developed, validated by an Advisory Committee (AC) and tested with 8 other patients. The pilot questionnaire was produced and validated by the AC. A cross-sectional, observational study was carried out to validate the questionnaire for a use in clinical practice and to provide a typology of painful ocular pathologies. The questionnaire was completed by 536 consecutive patients presenting with pain complaint in 43 centres. The clinicians completed a medical form and assessed the questionnaire’s usefulness and feasibility in clinical practice. RESULTS: The test questionnaire was developed taking into account the preference given by patients to visual analogus or graduated scales to quantify pain, and to pictures or diagrams to describe pain. This test version was considered valid and easy to use, except for the emotional descriptors of pain. The pilot questionnaire contained five sections: “General Health”, “Eyes and eyesight”, “Pain”, “Pain relief”, “Pictograms and sensorial descriptors”. A description of pain characteristics was provided for the most frequent painful diseases, including traumatisms (183), ocular surface diseases (71), cornea pathologies (58). A total of 27 ophthalmologists evaluated the questionnaire and 78% of them considered it helpful for patient management. CONCLUSION: The ODEON® questionnaire is a unique, promising tool designed for use in clinical practice to allow patients with ocular pain to comprehensively quantify and describe their pain in a standardised format. Further work is needed to establish specific recommendations.

HEALTH CARE USE & POLICY

A COMPARISON OF FREQUENTIST AND BAYESIAN STATISTICAL APPROACHES IN COST-BENEFIT ANALYSIS
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OBJECTIVES: To compare the results of a prospective cost-benefit analysis (CBA) of the South Carolina Palmetto Poison Center (PPC) using Bayesian and frequentist (inferential) statistical approaches to estimation. METHODS: Results from a cost-benefit analysis of a statewide poison control center were used in this analysis. The CBA was conducted based on a follow-up survey of 652 callers to the PPC who were recommended for home management of their suspected poisoning exposure. A payor perspective was taken and costs included direct costs. Benefits were measured as direct medical costs avoided (e.g. emergency department visit, ambulance service, physician visit) by the use of the PPC. A series of decision analytic models were constructed and analyzed separately with frequentist and Bayesian statistical methods. Data from a similar CBA of the PPC conducted in 1998 was used to obtain the “prior” information needed for the Bayesian analysis. BC ratios using the two approaches were compared and their interpretations explored. RESULTS: Calculation of BC ratios using Bayesian and frequentist approaches yielded similar measures. The BC ratio was 7.77 in the frequentist approach with a 95% CI of (6.93, 8.61) and 7.42 in the Bayesian approach with a 95% credible interval of (5.46, 9.38). See the abstract titled “Cost-Beneficial Acceptability Curves: Calculation and Comparison between Frequentist and Bayesian Statistical Approaches in Cost-Benefit Analysis” for the detailed CBA data and description. CONCLUSIONS: The PPC is cost-beneficial over a reasonable range of cost and benefit values. Results are similar between the frequentist and Bayesian approaches, although interpretation of the two approaches differs significantly.