significantly increasing with their initial disease severity. Amount of db loss per year were in line with previously published prospective studies.

PSS6

EPIDEMIOLOGY, DISEASE BURDEN, SYMPTOMATOLOGY, TREATMENT PATTERN, AND QUALITY OF LIFE IN MACULAR DEGENERATION IN KOREA: SYSTEMATIC LITERATURE REVIEW BASED ON KOREAN EVIDENCE

Sohn HS
Sookmyung Women's University, Seoul, South Korea

OBJECTIVES: The objective of this study was to summarize epidemiology, disease burden, symptomatology, treatment pattern, and quality of life in macular degeneration (MD) in the Korean population through a systematic literature review. **METHODS:** Literature searches were conducted through Korean databases(RISS, KMBase, KoreaMed, NDSL, National Assembly Library), national statistics portals and ophthalmology journals for the period to April 2011, using "macular degeneration" as a keyword. Publications were selected according to pre-defined selection criteria. **RESULTS:** Forty-three studies were identified and included in the review. Most (40) described clinical characteristics and treatment pattern. 4 described epidemiology and 2 focused on quality of life. No study estimated economic burden. In summary, 1) MD characterizes exudative form, subretinal neovascularization or retinal pigment epithelial detachment, and equal distribution of circular and geographic atrophy; 2) MD is a major reason of low vision/visual impairment; 3) Drug therapy such as bevacizumab or ranibizumab presents effects on decrease of central macular thickness and preservation of visual acuity, but optimized patients have to be identified. Photodynamic therapy is relatively safe, and pneumatic displacement or radiation therapy is somehow effective on visual acuity even though being a risk of vision loss. Concurrent drug and non-drug therapies have been tried as well clinically; 4) Prevalence of MD is higher in elderly over 65 years with 13.3% rate and higher proportion of exudative form than western countries; and 5) Quality of life is decreased in patients with MD or low vision. **CONCLUSIONS:** This study describes lack of local information especially disease burden and quality of life. In the era growing sharply aging population, prevent and treat MD are crucial for preserving vision and improving quality of life. Therefore future studies are needed.

PSS7

PREVALENCE ASSESSMENT OF DIABETIC MACULAR EDEMA WITH VISUAL IMPAIRMENT IN SPAIN: A PREVAIL STUDY

Andres I[1], Balañá M[1], Gallagher M[2], Riera M[3], Pareja A[4], Barrot J[5], Orozco D[6], Roura M[1]
[1]*Medical Department. Novartis Farmacéutica S.A., Barcelona, Barcelona, Spain,* [2]*Novartis Pharma A.G., Basel, -, Switzerland,* [3]*Market Access Department. Novartis Farmacéutica S.A., Barcelona, Barcelona, Spain,* [4]*Hospital Universitario Insular de Gran Canaria, Las Palmas de Gran Canaria, ., Spain,* [5]*Centro Atención Primaria, Salt, Girona, Spain,* [6]*C.S. Petrer II, Alicante, ., Spain*

OBJECTIVES: Diabetic macular edema (DME) is the main cause of visual impairment (VI) in diabetic patients. The prevalence of DME is estimated to be 5.4% in Europe, but there is no observational evidence currently available. The objective was to determinate the prevalence of DME and DME with VI from Belgium, France, Germany, Italy, The Netherlands, Spain and UK, in an epidemiological study. Reported here are the results from Spain. **METHODS:** Patients with diabetes mellitus types 1 and 2 (DM1 and DM2) were consecutively recruited by General Practitioners (GPs) across Spain. Diagnosis and severity of DME, related VI, sociodemographics, general and ophthalmic comorbidities, HbA1c, antidiabetic and DME treatment were documented. Patients with retinitis pigmentosa, epiretinal membrane, or active uveitis were excluded from the calculation of VI due to DME. **RESULTS:** A total of 26 GPs recruited 445 eligible patients (38 DM1, 411 DM2) from July 2010 to April 2011, 51.2% male, mean (SD) age of 66.2 (12.8) years, 37.2% smokers or exsmokers. Patients with DME diagnosis showed a longer length of time since onset of diabetes (14.55 y vs 9.64). The prevalence of DME was estimated to be 4% (18/445 patients) (95%CI 2.2-5.8%) and VI due to DME was 2% (9/445) (95%CI 0.7-3.3%). Poor diabetic control (HbA1c $\geq$7%) was reported in 219 (48.8%) of all patients, being higher in those with DME (66.7%). Ocular comorbidities, such as cataract or glaucoma, were present in 17 (94.4%) DME patients. 15 (83.3%) patients received DME treatment, mainly laser photocoagulation (77.8%), alone or in combination with vitrectomy and/or pharmacological treatment. **CONCLUSIONS:** ME affects 4% of the diabetic patients in Spain, and 2% of them suffer VI due to DME. Results suggest that poor diabetic control and long time since diabetis onset are associated with development of DME. This study was sponsored by Novartis Pharma AG.

PSS8

ADVANCED CUTANEOUS MELANOMA IN THE UK: A SYSTEMATIC REVIEW

Poku E[1], Cooper K[1], Wang Q[2], Bapat U[2], Lebmeier M[2]
[1]*University of Sheffield, Sheffield, South Yorkshire, UK,* [2]*Bristol-Myers Squibb, Uxbridge, Middlesex, UK*

OBJECTIVES: Cutaneous malignant melanoma (CMM) is an uncommon yet aggressive form of skin cancer. In 2008, CMM was found to be the sixth most common cancer in the UK. The aim of this review was to identify the incidence of advanced CMM in the UK (UK). The definition of advanced CMM was stage IIIc and stage IV disease in affected patients. **METHODS:** Multiple sources including the Cochrane Library, MEDLINE, EMBASE and CINAHL were searched between December 2010 and March 2011. Searches were also conducted by scanning the websites of the Office of National Statistics, Cancer Research UK as well as the Welsh Cancer Intelligence and Surveillance Unit. A narrative synthesis was undertaken due to heterogeneity in included studies. **RESULTS:** Of the three included studies, 2 were conducted in Scotland while one was undertaken in the East Anglia region of England. Although all patients had a confirmed diagnosis of CMM, variations in staging methods and unclear or insufficient reporting made it challenging to identify patients with stage IIIc and stage IV disease. Both studies undertaken in Scotland at different periods reported that 2% of all melanoma patients had advanced CMM at the time of diagnosis. However, the definitions of advanced CMM were not similar in each study. The incidence of stage IV CMM reported in 3,971 patients from East Anglia decreased from 0.42 to 0.13 per 100,000 population per year between 1991 and 2004. **CONCLUSIONS:** This review highlighted the lack of, and need for primary studies to estimate the incidence of advanced CMM in the UK. In order to examine trends across UK as well as identify patients for targeted treatment, we suggest that researchers must clearly define this sub-group in future studies.

Sensory Systems Disorders – Cost Studies

PSS9

THE BURDEN OF AGE-RELATED MACULAR DEGENERATION IN THE NETHERLANDS

Boland MRS[1], Vingerling J[2], Groot M[3], Hakkaart-van Roijen L[1]
[1]*Erasmus University, Rotterdam, The Netherlands,* [2]*Erasmus Medical Center, Rotterdam, Rotterdam, The Netherlands,* [3]*Novartis Pharma B.V., Arnhem, The Netherlands*

OBJECTIVES: Age-Related Macular Degeneration (AMD) is a disorder of the central area of the retina resulting in a significant loss of visual acuity. AMD is the leading cause of incurable blindness and visual impairment in industrialized countries. Consequently AMD leads to decrease of Quality of Life (QoL) and increased health care costs. For the The Netherlands no information on the burden of AMD was available. The main aim of this study was to assess the burden of AMD patients in the The Netherlands in terms of health care costs and QoL from a societal perspective. **METHODS:** AMD cost parameters were identified and the 'AMD cost and impact questionnaire' was developed. Members of the Dutch Macular Degeneration Patient Organization with a disease severity ranging from normal vision to legally blind were invited to enter the study during regional meetings. The EuroQol 5D was used for measuring QoL. Data on resource use and QoL were collected through telephone interviews. **RESULTS:** Seventy-five patients completed the questionnaire. The average total annual cost for AMD was €5651 per person (95% CI: 4252 - 7051). Home help was the major cost component (€2507 p.p.). Total costs were significantly higher for individuals with more severe AMD and the QoL significantly lower for individuals with more severe AMD ($P<0.05$). The average utility of AMD was 0.792 (95% CI: 0.771-0.812) significantly lower than the average 50+ Dutch population (0.850). The respondents reported 'usual activities' as the area with the most problems. **CONCLUSIONS:** Increased visual impairment leads to significantly higher annual costs and lower overall QoL.

PSS10

ECONOMIC OUTCOMES OF GLAUCOMA TREATMENT WITH PROSTAGLANDIN EYE DROPS PRESERVED WITH POLYQUAD® INSTEAD OF BENZALKONIUM CHLORIDE IN GERMANY

Gerlier L[1], Lamotte M[1], Lorenz K[2], Berdeaux G[3], Verboven Y[4], Pfeiffer N[2]
[1]*IMS Consulting Group, Vilvoorde, Belgium,* [2]*University Medical Centre, Mainz, Germany,* [3]*ALCON RESEARCH LTD, RUEIL-MALMAISON, France,* [4]*Alcon Research Ltd, Puurs, Belgium*

OBJECTIVES: In glaucoma patients, the long term use of prostaglandin eye drops containing benzalkonium chloride (BAK) increases the risk of developing an ocular surface disease (OSD). Polyquad® preserved prostaglandins are now available, among which travoprost proved similar in efficacy and safety compared to BAK-preserved formulations. We aimed to estimate the impact of Polyquad® instead of BAK on glaucoma management cost. **METHODS:** A Markov microsimulation model was developed in TreeAge, including 5 health states corresponding to 4 treatment lines plus death, in representative, treatment-naive patients at different OHT/glaucoma stages. The sequence travoprost-travoprost+timolol fixed combination preserved with Polyquad® was compared to BAK-preserved latanoprost-latanoprost+timolol (LAT) and bimatoprost-bimatoprost+timolol (BIM). The model events were: onset of OSD (risk factors: age, sex, BAK exposure; sources: US incidence study [Moss 2005], Erb 2008), need for treatment change including surgery/laser (risk factors: treatment line, disease stage, OSD presence, BAK exposure; sources: persistence studies in UK GPRD [Lafuma 2007] and US claims database [Schmier 2010]), and disease progression (risk factors: treatment line, OSD severity, non-compliance; sources: large prospective studies in OHT/glaucoma). Costs data came from a German observational study in OHT/glaucoma with 5-year retrospective collection of medical resources used (Statutory Health Insurance perspective + patient co-payments; 2011 drug costs, other costs 2010). The 95% confidence intervals came from a probabilistic sensitivity analysis. **RESULTS:** After 10 years, the total management cost in the travoprost with Polyquad® arm was €4677 [4378; 5013] compared to €5196 [4904;5482] with LAT and €5342 [5069;5664] with BIM. More patients required eye surgery/laser procedures with BAK-preserved sequences (LAT: 4.7% [3.2;6.4%], BIM: 6.0% [4.0;8.3%]) compared to travoprost with Polyquad® (1.8% [0.9;2.9%]). **CONCLUSIONS:** At 10 years, prostaglandin treatment with Polyquad® is expected to reduce the cost of glaucoma treatment by 10-15% from both individual and societal perspectives, and have lower surgery/laser rates compared to BAK-preserved treatments.

PSS11

RANIBIZUMAB AND BEVACIZUMAB FOR THE TREATMENT OF AGE-RELATED MACULAR DEGENERATION: A SYSTEMATIC REVIEW AND ECONOMIC EVALUATION

Martinez Ferez IM, Flores Moreno S
Andalussian Agency for Health Technology assesment, Sevilla, Spain

OBJECTIVES: To evaluate and comparate the efficacy, safety and cost of the bevacizumab and ranibizumab intravitreous injections for the treatment of age related