impairment with a mean DLQI total scores of 4.0. Men and women mean total scores were respectively: 2.7 vs. 4.9 (p < 0.05). The mean number of impacts was 2.3, patients were allocated according to the number of impacts. For patients with three impacts and less the mean DLQI total score was 3.3; it was 6.8 for patients with 4 impacts or more (p > 0.0001). The patient’s perception of their sun sensitivity had a very strong impact on patients’ QoL, the more sensitive, the more QoL was impaired (p < 0.005). The use of sunscreen has an impact on QoL, the more patients use sunscreen, the better their QoL was (p < 0.0005). All the symptoms associated with the sunburn impaired the QoL (p < 0.05) except the skin peeling. Further analysis demonstrated that age was not interacting with the scores, neither was the activity when the sunburn occurs. CONCLUSIONS: Our population reflect a QoL impairment compared to the ranges obtained when initially validating the DLQI; i.e. for patients suffering acne the DLQI mean score was 4.3, it was 6.7 for patients with viral wart and 3.4 for patients with solar keratos. Those results confirm the ones obtained during a previous study among pharmacy’s staff demonstrating a link between QoL impairment and sunburns severity.

HAIR LOSS, QUALITY OF LIFE IMPACT

Taieb C1, Macy G2, Sibaud V1, Martin N1, Myon E1
1IRPF, Boulogne-Billancourt, France; 2DUCRAY Dermatological Laboratories, Lavaur, France

Hair loss due to either ageing, pathology or drug therapy often proves to be poorly accepted by those who suffer from it. OBJECTIVES: To evaluate the quality impact of hair loss among a representative sample of the French population. METHODS: We questioned a representative sample of the entire French population aged 15 years and above. The sample was selected by IPSOS Santé, using the method of quotas (sex, age, profession of the head of the household). Interviews were systematically controlled by recalling 20% of those interviewed. The SF-12 is a generic measure of health status. The SF-12 is composed of two dimensions, a Physical Component Summary (PCS-12) and a Mental component Summary (MCS-12). The results are standardised on the general US population [mean score of 50 (SD = 10)], so results can be meaningfully compared to an average and compared one another. RESULTS: For men suffering hair loss, the physical dimension is impaired (PCS-12: 48.57 vs. 49.22, p < 0.001), whereas for women, it is the mental dimension which is impaired (MCS-12: 44.26 vs. 46.83, p < 0.001). The SF-12 seems to be an efficient tool to assess the quality of life of patients suffering hair loss, e.g. among patients who expressed living it as a disability or an embarrassment, the quality of life of patients suffering hair loss, i.e. for patients suffering acne the DLQI mean score was 4.3, it was 6.7 for patients with viral wart and 3.4 for patients with solar keratos. Those results confirm the ones obtained during a previous study among pharmacy’s staff demonstrating a link between QoL impairment and sunburns severity.

HAIR LOSS, EPIDEMIOLOGICAL APPROACH

Taieb C1, Macy G2, Sibaud V1, Martin N1, Myon E1
1IRPF, Boulogne-Billancourt, France; 2DUCRAY Dermatological Laboratories, Lavaur, France

OBJECTIVES: To evaluate the prevalence of hair loss among a representative sample of the French population. METHODS: We questioned a representative sample of the entire French population aged 15 years and above. The sample was selected by IPSOS Santé, using the method of quotas (sex, age, profession of the head of the household). Interviews were systematically controlled by recalling 20% of those interviewed. Hence, the sample was set up in such a way that the results could be analyzed without hesitation, particularly since the principles of statistical representativeness were observed. RESULTS: Of the French population aged over 15 years interviewed in this survey (n = 1006), 40.3% declare suffering from hair loss (36.8% of men and 43.6% of women) and 3.9% are bald. More women that men felt that their hair loss is important (8.8% vs. 8.7%) nor slightly important (34.8% vs. 28.2%) but very few women were bald (1.0% vs. 7.0%). No significant difference was found in terms of gender, socio-professional status, geographic localization nor education level and their impact on hair loss. Mean age was different for patients suffering hair loss (47.6 vs. 43.6, p = 0.0008). If 14.2% of women aged 15 to 19 years reported hair loss, only 3.4% of men did. Whereas 44% of men between 25 and 45 declared hair loss vs. 32 for women; over 60 years: 5% of men versus 11% suffered from it. Among our population suffering hair loss, 5.1% of them (male: 2.6% vs. female: 6.9%) consider it as a disability or embarrassment in their professional life, whereas they are 17.4% (male: 8.8% vs. female: 24.1%) to consider it as a disability or embarrassment in their personal life. CONCLUSIONS: Hair loss concern an important population among young women, therefore its management by dermatologists is justified.
Abstracts

are starting to bear fruit. Patients with high sun sensitivity may require further investigation. Despite this, there is a strong need to reinforce sun exposure risk awareness in the general population.

PES24
IMPACTED CERUMEN: A LITERATURE REVIEW
Guest JP1, Greener MJ1, Smith AF2
1Catalyst Health Economics Consultants, Middlesex, UK; 2University of Oxford, Oxford, UK

OBJECTIVES: To examine the literature on impacted cerumen with specific reference to pharmacological ceruminolytic agents, its epidemiology and current management in primary care.

METHODS: A systematic literature review was undertaken by an electronic search of the Medline, Embase, Health Star, Current Contents, NHSEED and Cochrane databases. The search terms for the database included “cerumen”, “ear wax” and “hearing loss” and included papers published between January 1, 1990 and July 31, 2002. RESULTS: Impacted cerumen is commonly seen in primary care settings. Between 1.2 million and 3.5 million people in the UK suffer from impacted cerumen. Moreover, 2.3 million people in the UK suffer cerumen problems serious enough to warrant management, with approximately four million ears being syringed annually. Impacted cerumen causes unpleasant symptoms and is occasionally associated with serious sequelae, such as hearing loss, social withdrawal, poor work function and perforated ear drums. The physiology, clinical significance and management implications associated with excessive and impacted cerumen remain poorly characterised. The evidence supporting the traditional view that cerumen plays a biologically or clinically significant role in host defence is weak; rather the consensus seems to be that if anything, cerumen offers a rich medium supporting microbiological growth. CONCLUSIONS: Patients with impacted cerumen clearly require effective treatment. However, given a dearth of rigorous evidence in the literature any attempt at a systematic assessment of optimal management strategies is exceedingly difficult. The evidence surrounding the pharmacological management of impacted cerumen is inconsistent and few conclusions can be drawn. There is clearly a need for a definitive assessment of the most effective pharmacological strategy for cerumen removal. Lastly, the causes and management of impacted cerumen require further investigation.

EYE/EAR/SKIN DISEASES/DISORDERS

EYE/EAR/SKIN DISEASES/DISORDERS—Methods and Concepts

PES25
ASSOCIATION BETWEEN VITAMIN SUPPLEMENTS USAGE AND PRESENCE OF AGE-RELATED MACULAR DEGENERATION IN A LATINO POPULATION ADJUSTING FOR SELECTION BIAS USING PROPENSITY SCORES
Bonnet PO1, Globe D1, Varma R1, Johnson KA2
1University of Southern California, School of Pharmacy, Los Angeles, CA, USA; 2University of Southern California, Keck School of Medicine, Los Angeles, CA, USA

OBJECTIVES: Investigate whether methods employed to reduce omitted variable bias can be used in a cross-sectional database to identify a relationship between supplemental vitamin usage and the presence of Age-related Macular Degeneration (AMD) in a Latino population. METHODS: Data were obtained from the Los Angeles Latino Eye Study (LALES) and included 6104 subjects. Data were originally collected to assess the prevalence of ocular disease and diabetes. Stepwise logistic regressions and simple logistic regressions for AMD were performed. Propensity scores were then used to control for selection bias. In the first stage, the probability of receiving vitamin supplement usage was modeled using logistic regression. Subjects were separated into quintiles defined by their propensity scores and we compared the vitamin supplement/no vitamin supplement groups using a 2-way analysis of variance model. Finally, the effect of vitamin use on AMD after selection bias adjustment was estimated using logistic regression. RESULTS: In total, 572 cases of AMD were identified. When using stepwise logistic regression, older subjects (OR: 1.043, CI: 1.034–1.052), males (1.624, 1.157–2.280), and people with income level less than $20,000 (1.428, 1.006–2.028) were more likely to develop AMD. Only age and gender were significant using logistic regression and adjusting for potential confounders. The seven covariates found significantly different between the vitamin/no vitamin groups were all non significantly different after adjustment for propensity score quintiles. However, even after selection bias adjustment, vitamin usage continues to be non-significant (0.896, 0.594–1.352). CONCLUSIONS: Although, propensity scores helped reduce potential sources of bias in this cross-sectional database, they did not improve the ability to detect a relationship between vitamin usage and AMD. Other sources of bias, such as the inability to determine the time of development of AMD, unknown dosages and specific vitamins used, could not be addressed by the use of propensity scores.

GASTROINTESTINAL DISEASES DISORDERS

GASTROINTESTINAL DISEASES DISORDERS—Cost Studies

PGII
ECONOMIC EVALUATION OF ON-DEMAND MAINTENANCE THERAPY WITH PROTON PUMP INHIBITORS IN PATIENTS WITH SYMPTOMATIC GASTROESOPHAGEAL REFUX DISEASE—A MONTE-CARLO ANALYSIS FOR ITALY
Hughes DA1, Marchetti M2, Colomba GL3
1University of Liverpool, Liverpool, Merseyside, UK; 2IRCCS Policlinico San Matteo, Pavia, Italy; 3A.V.E Studi Analisi Valutazione Economiche, Milano, Italy

OBJECTIVES: On-demand proton pump inhibitor (PPI) maintenance therapy is recommended for patients with symptomatic gastroesophageal reflux disease (GERD) in Italy who achieve symptom remission after 4 weeks of continuous treatment. The objectives of this analysis are to evaluate the costs to the healthcare system (NHS) and to society and effectiveness (quality adjusted life years) of on-demand maintenance therapy in patients with symptomatic GERD. METHODS: Decision analysis and Markov modelling of costs and effectiveness up to 12 months. Efficacy data were extracted from seven placebo-controlled trials; the primary outcome measure was time to treatment discontinuation owing to relapse of symptoms, requiring continuous therapy. Health state utilities were derived from a previously published study and data on health care resource utilisation were obtained from a prospective Italian study that followed 577 patients with functional dyspepsia for one year. RESULTS: Differences in utility scores associated with each PPI, ranging from 0.731 to 0.745 quality-adjusted life years, were not statistically different. Annual expected cost, however, were statistically different among the different drugs and the following cost-minimization ranking was obtained for costs to the NHS and to society, respectively: rabeprazole (181€, 295€), pantoprazole (223€, 341€), lansoprazole (249€, 370€), omeprazole 10 mg (297€, 412€), esomeprazole (295€, 419€), omeprazole 20 mg (405€, 528€). Unit cost of PPI was the major determinant of cost to the NHS, while productivity days lost due to symptoms was the major determinant of cost to society. CONCLUSIONS: