PRSG7 CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) DRUG UTILIZATION: AN ANALYSIS WITH THE RAMQ DATABASE
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OBJECTIVES: The objectives of this study were to describe the COPD population and treatment patterns, to estimate treatment adherence, and to compare medication costs, in a real life setting, using the Régie de l’assurance maladie du Québec (RAMQ) database. METHODS: Patients who had a diagnosis of COPD (ICD-9 codes: 4910-4929, 4960-4969), or who received at least one script of a COPD medication from January 1st 2010 to January 31st 2013 were selected. Patient’s characteristics, drug utilization patterns, adherence, and costs were analyzed. RESULTS: Among patients with a COPD diagnosis, 3,015 patients were treated with LABA (long-acting beta-agonists); 12,099 with LAAC (long-acting anticholinergics); and 11,029 with a fixed-combination of LABA/inhaled corticosteroids (ICS). A proportion of 26.1% of LABA, 23.6%, and 31.0% of LAAB, LAAC, and LABA/ICS users, respectively, had a mixed diagnosis with asthma. More than 80% of patients on long-acting agent treatments used more than one medication in concomitance. The results showed a high adherence to COPD medications in concomitance with LAAC (20.3% in free-combination; 59.2% in fixed-combination). In incident users (no COPD medication in the previous year) treated with triple therapy LAAC+LABA/ICS (n=125), average time to triple therapy was less than six months. The compliance, estimated over 1-1 year period, of long-acting COPD medications given more than once daily was 41.4%. The switch to once-daily medication was associated with a compliance of 61.4%. The compliance of the medications used before the switch to once-daily medication was 30.5%. Comparison of long-acting COPD medications given once daily was 72.3% at 6 months. At 6 months, the persistence of once-daily medication was 76.7%. The mean monthly cost per medication was C$D$46.65 (SD=39.21) for LABA/ICS (C$D$92.30–121.79) for LAAC users, and C$D$96.20 (SD=162.43) for LABA/ICS users. CONCLUSIONS: Medication given once daily was associated with a higher level of treatment compliance.

PRSG8 PHARMACOECONOMIC CONSIDERATIONS FOR ALLERGEN SPECIFIC IMMUNOTHERAPY IN A GEOGRAPHIZED REIMBURSEMENT SITUATION: THE ITALIAN CASE
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OBJECTIVES: Allergic rhinoconjunctivitis is a global health problem, and many studies have shown an important increase in the disease prevalence in the last 20 years. Allergen specific immunotherapy (IT) is the only available treatment for the underlying cause of the disease. At present, few economic evaluations are available for Italy. The present study focuses on the cost-effectiveness of IT in Italy, considering the fragmented reimbursement policies in different Regions of the Country. METHODS: A review of the literature on the pharmacoeconomic of immunotherapy for allergic rhinoconjunctivitis with a special focus on Italy (costs taken from Italian formularies, tariffs and Diagnosis Related Groups, or DRG). Reimbursement values were taken from official regional resolutions. RESULTS: Treatment with IT reduced by 38% symptomatic drugs consumption (whose costs are ranging from 10.5 to 37.5 per unit). Mortality reduced by 30% to 40% intensity (impacting on GPs and specialists visits, whose cost are ranging from € 13 to € 38, respectively) and by 25% the development of allergic asthma (which implies 1900 fewer deaths per year). The cost-effectiveness compared to other treatments, is shown in a sensitivity analysis across Italian Regions, ranging from 100% to 3% in, to various levels of copayment in 7 down to no reimbursement in 10. CONCLUSIONS: Overall, these data support the favorable impact of IT on the long-term medium term in front of the relative cost increase in the short-term. The cost is still not recognized in Italy where differences persist across regions in the access to IT reimbursement.

PRSG9 IMPACT, IN REAL LIFE CONDITIONS, OF THE USE OF A PURIFIER SPRAY ON ALLERGY CARE IN DUST MITE ALLERGIC SUBJECTS
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1CNRS, Paris, France, 2Naturactive, Castres, France
OBJECTIVES: The study was set-up to evaluate in real life conditions the perceived efficacy of a spray containing essential oils on allergy-related-symptoms, day-sleepiness and QoL of allergic subjects. METHODS: Women-and men with a known history of dust mite allergy were recruited in the study. They were asked to use in their house twice a day, the purifier spray for a period of 28days. The perceived efficacy was evaluated via self validated questionnaires on allergy symptoms (discomfort generated by sneezing; itchy eyes-stuffy nose; nasal flow, tiredness–ear itching), on daytime-sleepiness (Epworth-Sleepiness-Scale) and on tiredness-ear itching). The data were also evaluated according to symptom severity, i.e.low, moderate or severe. For the moderate and severe symptoms, a significant improvement was observed on their symptoms score since 7days of spray use. Moreover, for the subjects showing severe symptoms, an improvement was also observed on daytime-sleepiness (p<0.05) with the Epworth score going from 9.8±7.1 to 4.7±5.3 after 28days, and on the SF12 mental health score going from 58.8± 18.2 to 49.2±11.0 (p<0.0001). In conclusion the water treatment was shown to be beneficial in reducing allergic reactions and improving the quality of life. The results were also compared to placebo populations over the overall satisfaction evaluated was above 75% after 28days. CONCLUSIONS: By using self-validated-questionnaires, the evaluation shows the interest of the use of the essential oils spray in allergy care for dust mite allergic subjects. The improvement on symptoms is observed whatever the severity of symptoms is, and it is noticeable that for subjects showing severe symptoms, the quality of life and the sleep is also improved.

RESEARCH POSTER PRESENTATIONS – SESSION IV
RESEARCH ON METHODS STUDIES

RESEARCH ON METHODS - Clinical Outcomes Methods

PRM1 COMPARATIVE ASSESSMENT OF HEALTH IMPACT OF PREVENTION FOR 9 DIFFERENT CANCERS
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OBJECTIVES: We conducted this study to estimate the saving of loss-of-QALE from using immunotherapy for allergic rhinoconjunctivitis with a special focus on Italy (costs considered). METHODS: Using a Markov model, we simulated the lifetime risk for different cancers with Cumulative incidence rates (CIR,%) and multiplied with loss-of-QALE to obtain the expected impact. RESULTS: EYLL plus EYLD were similar to loss-of-QALE. Male patients with esophageal cancer suffered the highest loss-of-QALE of 18.37 QALY (quality-adjusted life year), equivalent to 18.19 years of EYLL plus EYLD, those of female patients with lung cancer were 16.57 QALY and 17.1 years, respectively. After multipled with the lifetime risk, liver cancer in male and breast cancer in female were expected to have the highest impact, or loss of 1.10-1.11 and 0.58-0.65 QALY or life-years, respectively. CONCLUSIONS: Estimated EYLL plus EYLD were close to loss-of-QALE and both can be used for measuring impact of cancer prevention. Simultaneous consideration of lifetime risk would provide a more accurate estimate for comparative risk assessment.

PRM2 EVIDENCE-BASED PRESCRIBING: USING EXISTING DATA ON BENEFITS AND HAZARDS TO CHOOSE AMONG MFU FOR 9 DIFFERENT CANCERS
Naci H1, van Valkenhoef G2, Higgins JP1, Fleurence R1, Ades AE3
1London School of Economics, London, UK, 2University of Groningen, Groningen, The Netherlands, 3University of Bristol, Bristol, UK, Patient-Centered Outcomes Research Institute (PCORI), Washington DC, USA
OBJECTIVES: Even in cases where comparative clinical data exist, decision-makers often struggle to weigh the relative benefits and harms of multiple drugs. We present the potential benefit of combining network meta-analysis (NMA) with multi-criteria decision analysis (MCDA) in order to formalize the incorporation of clinical evidence and qualitative preferences into prescribing decisions. METHODS: Using a systematic review and NMA of chemotherapy drugs as a case study, we compared the absolute risk of mortality, coronary and cerebrovascular disease, creatinine kinase and transaminase elevations, and discontinuations due to adverse events associated with atorvastatin, fluvastatin, lovastatin, pravastatin, rosuvastatin, and simvastatin. We applied a structured benefit-risk model that allowed evidence on multiple outcomes to be combined using qualitative preferences, assuming that the effect of statins on preventing mortality was more important than either major coronary or cerebrovascular events, which were in turn more important than any one of the harm outcomes. RESULTS: There were 184 randomized controlled trials of statins including 260,630 individuals. Our previous NMA found statistically detectable differences among individual statins in terms of both benefit and harm outcomes. When all outcomes were combined using MDA, fluvastatin had a considerable probability of both being the best (41%) and worst (12%) statin, reflecting the uncertainty in its evidence base. In contrast, simvastatin had a high probability of better ranks (56%) with a negligible probability of ranking worst (~1%). CONCLUSIONS: Clinical evidence can be combined with qualitative preferences at point-of-care settings when making prescribing decisions. The combination of NMA with MCDA holds the promise to introduce more transparency to the decision-making process and potentially increase the relevance and informative value of existing evidence for prescribing decisions. Adopting such an approach for cholesterol-lowering therapy suggests that simvastatin may potentially have the most favorable benefit-harm profile among statins.

PRM3 A COMPARISON OF 3 ASSESSMENTS IN THE TREATMENT OF ROSACEA IN THE CONTEXT OF A COMPARATIVE EFFECTIVENESS STUDY
Kendall J, Winkelman W
1Galderma Laboratories, L.P., Fort Worth, T.X.
OBJECTIVES: A retrospective study conducted at the University of Texas at Austin compared the clinical and cost-effectiveness of three rosacea treatments and compared the overall satisfaction of patients treated with each. METHODS: A multi-center, randomized, controlled, double-masked
crossover design study. Seventy men and women with moderate to severe rosetta of nasoalveolar malocclusion were included in this study. The primary efficacy endpoint was defined as a 2-grade improvement in both the CEA and PSA 6 hours after application on day 15. The progression of the study was independently monitored for safety and effectiveness changes in chromosome readings 6 hours after application on day 15. All outcomes were in comparison to baseline (Day 0). RESULTS: Per the protocol, the results of the second week were considered the main treatment effect. The average treatment effect in terms of change from the first period of the study was 24.4% and 10.7% for CEA and PSA, respectively. CONCLUSIONS: Improvements were larger and more pronounced with the CEA/PSA compared to the CEA/PSA. The results suggest that the difference in their rosacea severity and improvements with treatment differently than either a clinician or objective instrument.

PM46 A SCOPING LITERATURE REVIEW ON THE EXTERNAL VALIDITY OF RANDOMIZED CONTROLLED TRIAL POPULATIONS

OBJECTIVES: The aim of this scoping literature review was to report the findings of studies that have attempted to quantify external validity by comparing the patient population included in randomized controlled trials (RCTs) with patients from everyday clinical practice. METHODS: We conducted a literature review of English language journals published between 2003 and 2009. The RCTs were filtered to identify ‘real-life’ patient population. Studies were limited to pharmaceutical interventions undertaken in adults. A protocol was developed that outlined the search approach. A random sample of studies was abstracted (MEDLINE, Embase, Science Citation index, Cochrane Methodology Register). Double abstract review and data extraction were performed in line with protocol specifications. RESULTS: Out of 5456 de-duplicated abstracts, there were 73 studies that met the inclusion criteria. Studies covered a range of indications, patient populations, with the majority undertaken in mental health (n=18), cardiology (n=16), and oncology (n=13). Studies either assessed the proportion of people from a clinical setting that would be eligible for an RCT or undertook a post-hoc analysis of RCT patient characteristics compared to the real-world population. A range of comparison were made, including demographic, socioeconomic, and clinical parameters. The vast majority of studies (n=59) concluded that study selection criteria excluded many patients from clinical practice; most commented on how this limited external validity. A number of recommendations were made to improve the generalizability of RCTs or facilitate better understanding of their limitations. CONCLUSIONS: RCTs designed to maximize internal validity frequently result in a loss of external validity. Designers of RCTs should carefully weigh inclusion/exclusion criteria to ensure study objectives are met without unnecessarily sacrificing external validity, and the extent to which generalizability is compromised should be reported. Ultimately, a combination of explanatory and pragmatic studies is necessary to meet the diverse needs of regulators, prescribers, payers, and patients.

PM47 ESTIMATION OF LONG-TERM CARE NEEDS FOR 9 MAJOR CANCER IN TAIWAN

OBJECTIVES: The lifetime functional disabilities associated with cancer have gained increasing attention in the literature. This study determines the dynamic changes of different functional physical disabilities over time and their total duration after cancer diagnosis to understand their potential long-term care needs. METHODS: 395,330 patients with pathologically verified cancer registered in the National Cancer Registry in Taiwan between 1998 and 2007 were used to estimate the survival functions and extrapolate to lifetime through a semi-parametric method. A convenience sample of 6,189 patients of measurement patient's functional disability with EQ-SD was collected for measuring improvement levels and care needs. Lifetime functional disabilities were obtained by extrapolating the gender and age-stratified survival functions to lifetime, and multiplying them with the proportions of different kinds of functional disability over time. RESULTS: The common care needs for cancer patients were mobility and usual activity, the older the patient, the higher the prevalence of functional disabilities and care needs; the shorter the life expectancies (LE), the higher the proportion of expected years of living with disability (EYLD). Male patients with nasopharyngeal and oral cancer represented the longest for EYLD, or were 2.66 and 2.07 years, which would be about 20 and 17 percent of their LEs. The EYLD of cervical cancer was over 3.6 years, or about 9 to 10 years shorter than the EYLD of the other cancers. Female patients with functional disabilities approximately 1.4 to 31.2 percent of their remaining lifetime, and may in need of long-term care. More detailed studies are warranted to comprehensively care these patients.

PM7 ROLE OF TELEREHABILITATION IN PATIENTS FOLLOWING TOTAL KNEE ARTHROPLASTY: EVIDENCE FROM SYSTEMATIC LITERATURE REVIEW

OBJECTIVES: Increased physical activity and functional ability are the goals of total knee replacement surgery. Therefore, adequate rehabilitation is required for the recovery of patients after discharge from hospital following total knee arthroplasty (TKA). This literature review aims to elucidate the effectiveness and efficiency of home telerehabilitation in patients who underwent TKA. METHODS: Studies published in the English language between 2000 and 2014 were retrieved from Embase, PubMed and Cochrane databases using relevant search strategies. Two reviewers independently screened the titles and abstracts, and performed data extraction and quality assessment. RESULTS: Forty-nine RCTs and one meta-analysis were included in the systematic review. We considered telerehabilitation sessions as those that were conducted using videoconferencing by experienced physiotherapists to patients’ homes (TA). This study aimed to evaluate the effectiveness and efficiency of telerehabilitation in patients who underwent TKA. CONCLUSIONS: The current evidence suggests that telerehabilitation in patients who underwent TKA is effective and efficient. However, further rigorous research is required to confirm these findings.

PM8 DIFFICULTY IN ESTABLISHING THE IMPACT OF ANTIBIOTICS ON QUALITY OF LIFE IN PATIENTS WITH SEVERELY IMPAIRED IMMUNITY: WHAT WE MEAN BY DIFFERENCE IN QUALITY OF LIFE AND THE LOSS OF QUALITY OF LIFE IN PATIENTS TREATED WITH RIFAXIMIN-A FOR THE REDUCTION OF RECURRENCE OF EPISODES OF HEPATIC ENCEPHALOPATHY

OBJECTIVES: Hepatic encephalopathy (HE) is a serious complication of liver disease. HE presents as a spectrum of neurocognitive impairments, from mild HE to coma. Common HE-related symptoms include sleep disturbances, decreased activity and functional status similar to patients in conventional therapy group (CO). Therefore, adequate rehabilitation is required for the recovery of patients after discharge from hospital following total knee arthroplasty (TKA). This literature review aims to elucidate the effectiveness and efficiency of home telerehabilitation in patients who underwent TKA.

PM9 IMPLEMENTATION OF THE EXTRACT OF CENTAURIA ISLANDICA IN PATIENTS SUFFERING FROM EGZACERBATION OF CHRONIC PHARYNGITIS

OBJECTIVES: The objective of this paper is to establish if the implementation of Isla lozenges influences the intensity of sore throat sensation in patients suffering from exacerbation of chronic pharyngitis and whether their use influences the need of antibiotic therapy administration. METHODS: The number of 60 patients with egzacerbation of chronic pharyngitis has been observed. 30 of them used Isla lozenges during 10 days/6 times a day, while the remaining 30 did not take any. According to the VAS scale (0-10 cm) the intensity of sore throat sensation was determined at the beginning of the disease and after 10 days. Also, it was determined in how many patients it was necessary to introduce antibiotic therapy. RESULTS: The average value of sore throat sensation in the initial stage in the group in which Isla lozenges were administered was 6.80, while in the group that did not take them it was 6.60; p > 0.05. After ten days of trial, the average value of sore throat sensation in the group that did not take the lozenges, the average sore throat sensation was 5.90 after ten days; p > 0.05. The average values of sore throat sensation after 10 days of Isla lozenges implementation were much lower than with placebo, and it significantly lowers the intensity of sore throat sensation as well as the need for later antibiotic therapy administration. This research was supported by Provincial Secretariat for Science and Technological Development, Autonomous Province of Vojvodina project No 114-451-3551/2013-01

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