patients. As the results were mainly driven by the lower rates of severe exacerbations in the tiotropium arm, this highlights the importance of exacerbations when assessing cost-effectiveness in moderate to very severe COPD. Overall, a broader range of evidence parameters should be considered in economic modelling of COPD.

**PR52**

**COST-EFFECTIVENESS ANALYSIS OF SMOKING CESSATION INTERVENTIONS IN JAPAN USING THE DISCRETE EVENT SIMULATION MODEL**

**Suzuki A**1, Coto R1, Yoshikawa R1, Suwa K1, Ward A1, Moller C2

1Cancer Institute, Tokyo, Japan, 2Evidera, Lexington, MD, USA

**OBJECTIVES:** To compare the health and economic consequences in Japan of using pharmacotherapy to support smoking cessation with unassisted attempts and the current mix of strategies used.

**METHODS:** A discrete event simulation model was developed which included different quit attempts and relapses. The risk of developing smoking-related diseases was estimated based on the duration of smoking abstinence. Data collected from a survey conducted in Japan was used to determine the probabilities selected by smokers initiating a quit attempt, along with the time between multiple quit attempts. The analyses were conducted from healthcare payers’ perspective, with supplemental analyses in which productivity losses due to smoking-related diseases were estimated through the 2008–2012 Medical Expenditure Panel Survey (MEPS).

**RESULTS:** Using pharmacotherapy (NRT or varenicline) to support quit attempts proved to be dominant when compared with unassisted attempts or the current mix of strategies (most are unassisted). If varenicline is always chosen as a quit attempt, it would save JPY 206,100 and prolong 0.08QALY per smoker over a lifetime horizon, compared to current mix of strategies. The greatest cost saving was observed for the smokers aged 20–29 years, overall work impairment (32.6% vs. 24.6%) and activity impairment (39.5% vs. 32.3%) were higher in the control group. The loss of productivity costs attributable to being overweight or obese, each group of costs was estimated by assuming everyone was overweight or obese, each group of costs was estimated by assuming every- body was normal, and the mean difference between the two estimated costs was calculated. All costs were converted to US dollars using the Consumer Price Index (CPI). Results: Among a total of 5,391 working adults with asthma, prevalence of normal-weight was 28.4%, overweight 31.4%, and obese 39.7%. Annual average productivity loss costs for normal, overweight and obesity in asthmatic patients were $196) per patient per year, respectively.

**BACKGROUND:** Smoking cessation medications have been shown to yield higher success rates and sustained abstinence when compared to unassisted quit attempts. Although unassisted smoking cessation is still common in Japan, various treatments, including nicotine replacement therapy (NRT) and varenicline, can be covered by the health insurance system. The purpose of this study was to evaluate the cost-effectiveness of pharmacotherapy versus unassisted attempts and the current mix of strategies used.

**RESULTS:** Using pharmacotherapy (NRT or varenicline) to support quit attempts proved to be dominant when compared with unassisted attempts or the current mix of strategies (most are unassisted). If varenicline is always chosen as a quit attempt, it would save JPY 206,100 and prolong 0.08QALY per smoker over a lifetime horizon, compared to current mix of strategies. The greatest cost saving was observed for the smokers aged 40 to <50 years. CONCLUSIONS: Increased utilization of smoking cessation pharmacotherapy to support quit attempts is estimated to be cost-saving, as well as to improve health outcomes of the many smokers who want to quit.

**PR58**

**COST-MINIMIZATION ANALYSIS AND BUDGET IMPACT OF GLYCOPROTONIUM BROMIDE VS TIOTROPNIUM BROMIDE AS A MAINTENANCE THERAPY IN PATIENTS WITH MODERATE TO SEVERE CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)**

**Buitz Miranda C1, Ubiergo Lopez V1, Chavez Flascence E1

Novartis Mexico, Mexico

**OBJECTIVES:** To perform a cost-minimization analysis and budget impact of glycopyrornium bromide monotherapy versus tiotropium bromide monotherapy as a maintenance treatment in adult patients with moderate to severe chronic obstructive pulmonary disease (COPD) from the perspective of the Mexican public healthcare system.

**METHODS:** Using data from GLOW 5 study, it was established the equivalence of safety and efficacy of glycopyrornium bromide monotherapy and tiotropium bromide monotherapy, so it is evaluated the annual costs of each therapy to establish the cost-effectiveness of tiotropium bromide monotherapy. The 5-year COPD drug cost was estimated for one year in the cost-minimization analysis, using local prices for public healthcare institutions (IMSS). It was developed a 5 year horizon budget impact from the perspective of the Mexican public health care system with an annual discount rate of 5%. The total population used for the budget impact was calculated according to the CONAPO’s Mexican population projection with 40 years or over, the distribution of the COPD in Mexico (PHATNO study and the COPGPO Global prevalence of which uses biomass for cooking. A deterministic sensitivity analysis was performed in both cases. RESULTS: Annual cost of glycopyrornium bromide monotherapy was $US265.27 and for tiotropium bromide monotherapy was $US242.30 in one year horizon, 10.16% percent difference in favor of ucpn. In the first year were $287,409,746.74 and $62,527,500.25 for tiotropium bromide monotherapy and glycopyrornium bromide monotherapy respectively, with savings of 5.5% using glycopyrornium bromide. Glycopyrornium bromide monotherapy is less costly than tiotropium bromide monotherapy which shows us that is possible to achieve cost-savings with at least the same clinical benefit from the perspective of the Mexican public health system, in specific from IMSS. IMSS and Seguro Social (Group Health). CONAPO (National Council of Population) Exchange rate 14.55 MXN

**PR59**

**LOSS OF PRODUCTIVITY COSTS ATTRIBUTABLE TO BEING OVERWEIGHT OR OBESE IN WORKING ASTHMA PATIENTS IN THE US**

**Lee E1, Chang C2, Kim C1, Lee S1, Such D1

1Chang a Ng University, Seoul, South Korea, 2Catholic University College of Medicine, Seoul, South Korea

**OBJECTIVES:** To estimate annual loss of productivity costs attributable to being overweight or having obesity in working US adults with asthma patients. METHODS: This study applied a cross-sectional design using the 2008–2012 Medical Expenditure Panel Survey (MEPS). Asthma patients (18-64 years old) were identified by self-reported diagnosis, Clinical Classification Codes of 128, or ICD-9-CM code of 493. To investigate the impact of being overweight, patients were categorized as normal weight (18.5 ≤BMI<25), overweight (BMI≥25), and obese (BMI≥30). Productivity loss, which were measured based on missed work days due to illness or injury for 365 days in the previous year, was estimated using a two-part model to adjust for patients with zero costs. To estimate the productivity loss costs attributable to being overweight or obese, each group of costs was estimated by assuming everyone was overweight or obese, each group of costs was estimated by assuming everyone was normal, and the mean difference between the two estimated costs was calculated. All costs were converted to US dollars using the Consumer Price Index (CPI). Results: Among a total of 5,391 working adults with asthma, prevalence of normal-weight was 28.3%, overweight 31.4%, and obese 39.7%. Annual average productivity loss costs for normal, overweight and obesity in asthmatic patients were $196) per patient per year, respectively.

**RESULTS:** Using data from GLOW 5 study, it was established the equivalence of safety and efficacy of glycopyrornium bromide monotherapy and tiotropium bromide monotherapy, so it is evaluated the annual costs of each therapy to establish the cost-effectiveness of tiotropium bromide monotherapy. The 5-year COPD drug cost was estimated for one year in the cost-minimization analysis, using local prices for public healthcare institutions (IMSS). It was developed a 5 year horizon budget impact from the perspective of the Mexican public health care system with an annual discount rate of 5%. The total population used for the budget impact was calculated according to the CONAPO’s Mexican population projection with 40 years or over, the distribution of the COPD in Mexico (PHATNO study and the COPGPO Global prevalence of which uses biomass for cooking. A deterministic sensitivity analysis was performed in both cases. RESULTS: Annual cost of glycopyrornium bromide monotherapy was $US265.27 and for tiotropium bromide monotherapy was $US242.30 in one year horizon, 10.16% percent difference in favor of tiotropium bromide monotherapy. Glycopyrornium bromide monotherapy is less costly than tiotropium bromide monotherapy which shows us that is possible to achieve cost-savings with at least the same clinical benefit from the perspective of the Mexican public health system, in specific from IMSS. IMSS and Seguro Social (Group Health). CONAPO (National Council of Population) Exchange rate 14.55 MXN

**CONCLUSIONS:** Smoking cessation medications have been shown to yield higher success rates and sustained abstinence when compared to unassisted quit attempts. Although unassisted smoking cessation is still common in Japan, various treatments, including nicotine replacement therapy (NRT) and varenicline, can be covered by the health insurance system. The purpose of this study was to evaluate the cost-effectiveness of pharmacotherapy versus unassisted attempts and the current mix of strategies used.

**RESULTS:** Using pharmacotherapy (NRT or varenicline) to support quit attempts proved to be dominant when compared with unassisted attempts or the current mix of strategies (most are unassisted). If varenicline is always chosen as a quit attempt, it would save JPY 206,100 and prolong 0.08QALY per smoker over a lifetime horizon, compared to current mix of strategies. The greatest cost saving was observed for the smokers aged 40 to <50 years. CONCLUSIONS: Increased utilization of smoking cessation pharmacotherapy to support quit attempts is estimated to be cost-saving, as well as to improve health outcomes of the many smokers who want to quit.

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OBJECTIVES: Chronic spontaneous/idiopathic urticaria (CSU/CIU) is defined as the spontaneous appearance of itchy hives, angioedema, or both lasting more than 6 weeks. CSU/CIU has a significant yet underestimated impact on patient’s work productivity. The ASSURE-CSU study aims to identify and quantify the humanistic and economic burden of CSU/CIU. Here we present Canadian data on work productivity and indirect costs.

METHODS: Patients with ‘severe’ asthma were classified as those with ‘elevated’ (EOS >400 µL) and ‘normal’ EOS (<400 µL) and eighty PTB patients were randomly chosen for the study i.e. one hundred and eighty patients (n = 180). Patients ranged in age from 32 to 86 years and were 55% female. The time period of 12 months after index to record all-cause hospitalizations, ER and outpatient visits and associated costs. Mean hospitalizations, visits, and costs were compared using Wilcoxon signed rank test. Proportions were compared using Chi square tests. Logistic regression was conducted to assess the influence of elevated EOS on probability of incurring resource use after controlling for demographics and baseline comorbidities.

RESULTS: Of the 2,164 asthma patients identified, 184 (9%) were concordant with guideline recommendation for medication use for asthma control. Those with elevated EOS experienced more admissions during follow-up (OR: 2.61, p<0.01) and 40.9% of patients reporting moderate to extreme problems, respectively. Utility values decreased with increased disease severity for overall and dimension specific scores for both tools. COMPARISONS: Compared to the average utility score of an average Canadian population (0.875), the results of this study reveal that CSU/CIU has a significant impact on patients’ health status and quality of life, with patients suffering from moderate to severe urticaria showing a greater impact on patients’ health state.

RESPIRATORY-RELATED DISORDERS - PATIENT-REPORTED OUTCOMES & PREFERENCE STUDIES

PRS34

PATIENT PREFERENCE FOR REAL-TIME FEEDBACK IN EPRO ASSESSMENTS FOR COPD CLINICAL TRIALS

Kaurz F1, Gary ST2, Vazquez V1, Otero A1, Evans C3, Dallaballa S1

1Pfizer Corporation, Boston, MA, USA; 2EndPoint Outcomes, Boston, MA, USA

OBJECTIVES: Clinical trials for COPD are increasingly using electronic methods to collect patient-reported outcomes (ePRO). As use of this technology increases, it is important to consider patient preference in questionnaire design. This study examined patient preference for receiving real-time feedback while completing ePRO assessments. METHODS: A total of 103 patients with COPD were surveyed. Patients were asked to assume that they were using a handheld or tablet device to complete questionnaires as part of a clinical trial; they were then presented with example screens and asked about types of feedback they might receive on the device. Feedback was stratified by age, gender, and disease severity. RESULTS: Two hundred and eighty and seventy-eight patients were asthma patients identified, 184 (9%) were concordant with guideline recommendation for medication use for asthma control. Those with elevated EOS experienced more admissions during follow-up (OR: 2.61, p<0.01) and 40.9% of patients reporting moderate to extreme problems, respectively. Utility values decreased with increased disease severity for overall and dimension specific scores for both tools. COMPARISONS: Compared to the average utility score of an average Canadian population (0.875), the results of this study reveal that CSU/CIU has a significant impact on patients’ health status and quality of life, with patients suffering from moderate to severe urticaria showing a greater impact on patients’ health state.

RESPIRATORY-RELATED DISORDERS - PATIENT-REPORTED OUTCOMES & PREFERENCE STUDIES

PRS35

IMPACT OF PHARMACISTS-LED INTERVENTIONS ON ASSESSING KNOWLEDGE, ATTITUDE AND PERCEPTION AMONG TUBERCULOSIS PATIENTS IN PAKISTAN: AN INSIGHT FROM A RANDOMIZED CONTROLLED NON-CLINICAL TRIAL

Jabeel M1,2, Iqbal MZ3, Chiva-Razavi S3, Bashir S4, Nasir S5

1Faculty of Pharmacy, Bahauddin Zakariya University, Multan, Pakistan. Department of Clinical Pharmacy & Pharmacy Practice, Faculty of Pharmacy, AISTM University, Keok, Malaysia; 2Department of Clinical Pharmacy, School of Pharmaceutical Sciences, Universiti Sains Malaysia, Pulau Pinang, Malaysia Department of Clinical Pharmacy and Pharmacy Practice, Faculty of Pharmacy, AISTM University, Keok, Malaysia, Faculty of Law, University of Malaya, Kuala Lumpur, Malaysia, 3Research Unit-Pharmacoepidemiology and Clinical Pharmacy, AISTM University, Keok, Malaysia, 4Nishat Hospital, Multan, Pakistan

OBJECTIVE: To assess the impact of pharmacists-led non-clinical interventions on knowledge, attitude and perception among PTB patients. METHODS: A randomized controlled non-clinical trial was piloted on PTB patients under the supervision of registered pharmacists whereby PTB patients received additional non-clinical interventions regarding knowledge, attitude and perception on TB. RESULTS: Self-administered using a research tool was used and demographic characteristics of the patients were determined by means of descriptive statistics. Data was analyzed by using SPSS 21.0. Comparison between trial group and control group was done with the help of inferential statistics. RESULTS: Two hundred and eighty and seventy-eight patients were asthma patients identified, 184 (9%) were concordant with guideline recommendation for medication use for asthma control. Those with elevated EOS experienced more admissions during follow-up (OR: 2.61, p<0.01) and 40.9% of patients reporting moderate to extreme problems, respectively. Utility values decreased with increased disease severity for overall and dimension specific scores for both tools. COMPARISONS: Compared to the average utility score of an average Canadian population (0.875), the results of this study reveal that CSU/CIU has a significant impact on patients’ health status and quality of life, with patients suffering from moderate to severe urticaria showing a greater impact on patients’ health state.

RESPIRATORY-RELATED DISORDERS - PATIENT-REPORTED OUTCOMES & PREFERENCE STUDIES

PRS36

TREATMENT OUTCOMES OF SMEAR POSITIVE PULMONARY TB CASES REGISTERED IN TB PATIENTS IN QUETTA

Hussain S1, Baloch W1, Iqbal G2, Haseem A2, Ehter S1

1University of Balochistan, Quetta, Pakistan, 2University of Sarodgo, Sardogol, Pakistan

OBJECTIVE: The purpose of this study was to examine the treatment outcomes of smear positive pulmonary cases registered in TB clinic in year 2012. METHODS: Cross sectional retrospective cohort study was performed on TB patient in Fatima Jinnah chest hospital, Quetta. Retrospective medical records of smear-positive tuberculosis (PTB) patients registered in first quarter of year 2012. Tuberculosis treatment outcomes were assessed according to WHO guidelines. The descriptive statistics was used to present the demographic and disease related information. Inferential statistics was used to the evaluation relationship among study variables. All analyses were performed using SPSS 22 (Chicago, IL, USA). RESULTS: A total of 131 TB patients (67 males and 64 females). Majority of the patients were in the age group 18-47 (73.7%). High percentage of the patients had successful treatment with treatment outcome “ Completed and “cured” were 65% (n=74), whereas, death occurred in only 5.3% (n=7) of patients. Demographic characteristics age was only determine factor