–43%) end point costs. **CONCLUSIONS:** Statin exposure significantly reduced the risk of recurrent asthma-related hospitalization/ER events and associated costs over 12 months in this analysis of ICS-treated adult asthmatic patients.

PRS8

COSTS OF SMOKING IN SLOVAKIA FROM A PAYER PERSPECTIVE

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OBJECTIVES: There is an attribution of smoking morbidity about 30% relate to lung cancer (LC), about 20% relate to cardiovascular diseases (CVD) eg. myocardial infarction (MI) and stroke and about 75% of patients with chronic obstructive pulmonary disease (COPD). The main objective of this study was to determine direct medical costs related to smoking in Slovakia and the defined costs of smoking cessation. **METHODS:** Direct medical costs were evaluated from data collected in 2007 from the General Health Insurance Company, the largest one in Slovakia, covering 55% of all 5,400,000 inhabitants. The results were recalculated to the whole population. The costs were quoted in 2007 prices. **RESULTS:** The smoking costs of those patients treated on LC were €19,726,950; on COPD they were €19,454,040; on stroke they were €6,019,778 and on MI they were €26,247,289. It was 33.66% from total direct costs €212,243,357 assigned to these diseases and 2.15 % of total Slovakia health care budget. The cost of treating a smoker on diseases associated with smoking was €1,114. Decreasing the number of smokers by 10% will reduce health care costs by €7,144,806 per year, i.e. 0.22% from total budget. The cost of treatment to stop smoking using varenicline was €919 per patient. **CONCLUSIONS:** The direct costs associated with smoking comprise an important part of total health care budget in Slovakia. They signalize the need to establish effective strategies for smoking cessation. 44% clinical effectiveness of varenicline shows to be a cost-effective way in reducting smoking and decreasing health care expenditures.

PRS9

MANAGED-CARE BUDGET IMPACT OF OMALIZUMAB FOR MODERATE TO SEVERE PERSISTENT ASTHMA

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OBJECTIVES: Omalizumab (Xolair) is an FDA-approved immunomodulator for the treatment of steroid refractory, uncontrolled (symptomatic), moderate-severe persistent asthma in patients >12 years of age with a positive skin test to a perennial aeroallergen. Our objective was to estimate the budget impact of omalizumab availability on a hypothetical health plan (US payer perspective). **METHODS:** The budget impact was estimated as the difference in two scenarios where omalizumab is used by moderate-severe uncontrolled asthmatics with a confirmed allergic component over similar controlled asthma patients on standard of care. Publicly available, real-world utilization data were used to develop percentage estimates for omalizumab-eligible patients hierarchically as follows: treated asthmatics in the approved age-groups who exhibited poor symptom control (55% of patients) and were moderate-severe asthmatics (40%) with IgE mediated asthma (60%) and whose IgE levels were within the approved range per the omalizumab package insert (61%) were included in the model. Of these, based on real world utilization data, 3.2% would receive omalizumab therapy. Omalizumab-related costs in the model consisted of eligibility screening, drug, and office administration. Health service costs impacted by omalizumab consisted of unscheduled asthma-related exacerbation office visits, emergency room visits, and hospitalizations. The impact of key model parameters on the budget was assessed in sensitivity analyses (SA). **RESULTS:** The incremental cost of omalizumab-treated patients was estimated at $1285 per omalizumab user per month or $0.11 per member per month (PMPM) given the additive costs of omalizumab screening, drug and administration. When parameters were varied +/– 10% in a one-way sensitivity analysis, the PMPM varied within $0.10 to $0.125. Results were most sensitive to the estimated percentage of patients on omalizumab. **CONCLUSIONS:** The model demonstrated that omalizumab availability resulted in an incremental cost of $0.11 PMPM. Systematic variation of the model parameters by +/– 10% in the SA resulted in a PMPM range of $0.10–$0.125.

PRS10

RETURN ON INVESTMENT FROM SMOKING CESSATION INSURANCE COVERAGE IN THE WORKPLACE: A CANADIAN EMPLOYER'S PERSPECTIVE

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OBJECTIVES: Cigarette smoking imposes a significant burden on employers as a consequence of increased absenteeism and smoking-related breaks during the working day. Despite the evidence supporting the efficacy and cost-effectiveness of smoking cessation treatments (SCTs), relatively few private drug plans reimburse such treatments. The objectives of this study were to calculate the projected budget impact and return on investment for an employer funded drug plan in Canada in the first 3 years of introducing SCT coverage. **METHODS:** A recently published state-transition model reflecting relevant smoking statuses was used for the analyses. The model involves a comparison of the clinical and economic outcomes for a hypothetical cohort of 10,000 Canadian workers followed for three years. The relative efficacy of various smoking cessation strategies (varenicline, bupropion, nicotine replacement therapy and unaided cessation) were taken from the literature. Canadian data were used to determine the population of smokers, marketplace dynamics, SCT costs, smoking-related absenteeism and lost productivity. One-way sensitivity analyses were performed. **RESULTS:** The analysis lead to an estimate of 1,801 employees who were smokers at baseline. An estimated incremental total of 79 smokers would successfully quit smoking by the end of the 3-year time horizon with a SCT reimbursement program compared with a no coverage scenario. Budget impact associated with the SCT coverage scenario equated to $164,182 while projected savings to employers were estimated at $381,292 over 3 years. This represented projected net savings to employers of $217,110 and a return on investment of $2.32 for every dollar spent to support a SCT reimbursement program. One-way sensitivity analyses confirmed the robustness of the findings. **CONCLUSIONS:** For a relatively modest investment, a SCT reimbursement program in the Canadian workplace is likely to reduce the number of smokers in the workforce, while generating a positive return on investment for employers within a short timescale.

PRS11

QUANTIFYING COSTS AND BENEFITS OF TIMING PHARMACEUTICAL INTERVENTION: AN ECONOMIC SIMULATION MODEL OF ASTHMA IN ALBERTA, CANADA

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OBJECTIVES: To estimate the costs and benefits of Timing Pharmaceutical Intervention (TPI) through an example of asthma in Alberta, Canada. **METHODS:** We included changes in direct health care and lost productivity costs, and Health Related Quality of Life (HRQOL) among Alberta's asthmatic adults (18 years and over) in a one year time period. Health care costs and benefits were estimated through the effects of TPI on drug uses and health care utilization patterns, including hospital days, ER visits and physician visits. Productivity and HRQOL benefits were estimated through the effects of TPI on the number of symptom free days (SFDs) of patients at age 18–64 and at all adult ages respectively. Health care utilization rates, unit costs, SFDs days and HRQOL index scores from the literature were used for analyses. The costs were adjusted to 2006 Canadian dollar value. **RESULTS:** In a year, in addition to a saving of $0.2–$0.3 million in health care costs, TPI on asthma generates a benefit of $12–$19 million in terms of improved productivity and 22–29 quality adjusted life years in terms of improved HLQOL. **CONCLUSIONS:** The costing model provides us with a rough indication of the economic impact of TPI. It is not expected that TPI will always yield net savings in terms of health care costs for all chronic conditions. This will depend on specific diseases and the cost effectiveness of the intervention among the target population. However, other benefits, such as improved HRQOL and productivity, should be considered in the decision making.

PRS12

ALLERGY IMMUNOTHERAPY CONFERS SIGNIFICANT HEALTH CARE COST SAVINGS WITHIN 3 MONTHS OF INITIATION: A MATCHED RETROSPECTIVE COHORT STUDY OF MEDICAID-ENROLLED CHILDREN NEWLY DIAGNOSED WITH ALLERGIC RHINITIS

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OBJECTIVES: To compare the health care costs of children with newly-diagnosed allergic rhinitis (AR) who subsequently received allergy immunotherapy (IT) to a matched group of children with newly-diagnosed AR who did not receive IT. **METHODS:** We examined 10 years (1997–2007) of Florida Medicaid paid claims to identify children (<18 years) newly diagnosed with AR who received IT and had at least 18 months of data following IT initiation (IT Group). Patients were matched (by age at AR diagnosis, sex, race, and presence of asthma, atopic dermatitis, or conjunctivitis) over the same period to newly AR-diagnosed children who did not subsequently receive IT (Control Group). Wilcoxon signed-rank tests compared 2-year, median, per-patient total health care costs (pharmacy costs + inpatient costs + outpatient costs + IT costs if any) at 3, 6, 12, and 18 months. **RESULTS:** Among 3,240,046 Florida Medicaid-enrolled children, 196,687 (6%) were newly diagnosed with AR, and 3,931 (2%) subsequently received IT. A subset (N = 2,291) had at least 18 months of follow-up data and were matched to one or more of 71,790 controls. Within three months of IT initiation, the IT Group incurred significantly lower total health care costs ($1,006 vs. $1,365, $p < 0.0001$) than the matched Control Group. Significant cost savings were maintained across 6 months ($1,810 vs. $2,474, $p < 0.0001$), 12 months ($3,242 vs. $4,519, $p < 0.0001$), and 18 months ($4,329 vs. $6,138, $p < 0.0001$), growing from $359 at 3 months to $1,809 at 18 months. In contrast, the 3-, 6-, 12-, and 18-month per-patient median cost of IT was $250, $360, $488, and $565, respectively. **CONCLUSIONS:** This is the first U.S.-based study to report significant health care cost savings for IT among AR-diagnosed children. Findings suggest that these savings may occur within a few months of treatment initiation, appear to increase over time, and may more than offset the cost of IT.