

(\$15,618 USD). From the subgroup analysis, it was observed that the cost-effectiveness of mepolizumab increases in specific subgroups, achieving an ICER of \$46,640 USD in patients with eosinophils count of 300 and more cell/mcL and an exacerbation history of at least 4 exacerbations in the past year. **Conclusions:** In the light of the Chilean threshold, mepolizumab cannot be considered a cost-effective strategy. However, price discount in specific subgroups improves its cost-effectiveness profile significantly. It was estimated an ICER of \$24,116 USD in the best performance subgroup with a 50% price discount.

PRS25

HEALTHCARE RESOURCE UTILIZATION AND RELATED COSTS IN PROGRESSIVE FIBROSING INTERSTITIAL LUNG DISEASES (ILDs)

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Objectives: The economic burden of progressive fibrosis ILD (PF-ILD) is poorly characterized. We aimed to examine healthcare resource utilization (HRU) and related costs associated with PF-ILD. **Methods:** We analyzed IBM® MarketScan® claims data (October 2011–September 2015) for patients aged ≥18 years with fibrosing ILD diagnosis defined as a new lung fibrosis claim (after 365 days continuous enrolment) followed by a second claim within 30–365 days, using the second claim as the diagnosis date. PF-ILD was defined on or after fibrosing ILD diagnosis upon occurrence of any proxies for progression (index) (e.g. ≥2 pulmonary function tests within 90 days, ≥2 HRCs within 1 year or oxygen use). HRU and related costs (mean±SD) were summed during the baseline period (before diagnosis of PF-ILD) and the 1-year follow-up period after PF-ILD diagnosis (for patients with sufficient follow-up). **Results:** Among 128,231 patients with a lung fibrosis claim, 23,577 (18%) had a second claim required for inclusion, and of these 14,722 patients were classified as having PF-ILD (based on proxies for progression). Among these PF-ILD patients, there was a higher mean (±SD) number of outpatient visits (including services) during 1-year follow-up (n=5,840; 41.89 [30.15]) than during baseline (25.70 [20.90]). Mean (±SD) number of inpatient admissions was 0.69 (1.18) during follow-up and 0.51 (0.92) during baseline, including more ICU admissions and respiratory-related hospitalizations. Mean total costs were higher during follow-up (n=5,815; \$54,215 [116,833]) than during baseline (\$37,340 [74,323]). This trend was similar for both inpatient costs (follow-up: \$20,746 [88,880]; baseline: \$14,883 [53,404]) and outpatient costs (\$24,711 [51,429] and \$17,075 [37,987]). **Conclusions:** Among patients with PF-ILD, HRU and related costs, particularly relating to outpatient visits, were higher during 1-year follow-up than the baseline period. This study provides much-needed insights into HRU and costs in patients with a progressive phenotype of chronic fibrosing ILD.

PRS26

MEDICAL COST IN UPPER RESPIRATORY TRACT INFECTIONS IN CHILDREN IN AMBULATORY CARE

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Objectives: The aim of this study was to estimate the direct cost per episode and the annual cost for URTI in children in Ambulatory Health Centers of the Ministry of Public Health (MPH) of Ecuador. **Methods:** This is a cost of illness study of medical costs with a provider perspective and a micro-costing approach. This includes medical care, tests, diagnosis and medication as principal resources. The International Classification of Disease (ICD) – 10 was used for selection of the diagnosis criteria for URTI. The data source for the resources use and data collection included in this study were the Electronic Health Records (EHR) of all the patients from one Health Center of the Ministry of Public Health in Ecuador. **Results:** We included 380 electronic health records of children 1 – 18 years old. We found a re-consultation rate of 22.89%, a medicine prescription rate of 95.52% and an antibiotic prescription rate of 45.26%. Complementary use of laboratory tests and imaging were low. The first medical consultation accounted for 71.9% of the total cost of URTI, the following visits accounted for 11.82% and medication accounted for 14.68%. Antibiotics accounted for 58.92% of the total cost of medication. **Conclusions:** The direct medical cost to the MPH of Ecuador of one episode of URTI in children in primary care was around \$19.5 (95% CI: \$18.73, \$20.27) and the total cost of URTI cases in children to the MPH in 2017 accounted for \$ 26.4 m (95% CI: \$25.380 m to \$27.47 m). Re-consultation and the prescription of medication represent an important part of the direct cost of medical care of URTI.

PRS27

COST-EFFECTIVENESS OF FIX-DOSE COMBINATIONS OF LONG-ACTING AGONIST PLUS LONG-ACTING MUSCARINIC ANTAGONIST (LABA/LAMA) FOR THE TREATMENT OF COPD: A SYSTEMATIC REVIEW

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Objectives: To review the existing evidences regarding cost-effectiveness of LABA/LAMA combinations for the treatment of COPD and summarize the methods applied. **Methods:** A literature search was performed in PubMed, Cochrane Library, Web of Science, EBSCO host, Taylor & Francis Online, Elsevier ScienceDirect from inception to

December, 20, 2019 using keywords including "COPD", "glycopyrrolate/formoterol", "glycopyrrolate/indacaterol", "umeclidinium/vilanterol", "aclidinium/formoterol", "olodaterol/tiotropium", "LABA/LAMA", "cost effectiveness", "cost utility", "economic evaluation". CHEERS checklist was applied to measure the quality of reporting. **Results:** A total of 191 results were identified where 17 full-text studies were selected for the review. The satisfied items of CHEERS checklist (24 items) varied from 11 to 23. Comparators included single long-acting β agonist (LABA, 8/17), inhaled corticosteroids plus long-acting muscarinic antagonist (ICS/LAMA, 7/17), LABA/LAMA (3/17), free combination of LABA and LAMA (LABA+LAMA, 2/17), placebo (2/17). The perspectives were payer (15/17), society (1/17) or both (1/17). Markov model (7/17) and patient level simulation model (7/17) were the most selected. Time horizons ranged from 1 year to lifetime with 3.0% (12/17) as the most common discounting rate. All studies considered exacerbation as important even to include the costs and decrement of utilities. Only 9 studies included adverse events and 1 study considered adherence. QALYs were the main health outcomes and regression model from Rutten-van Molken was the most frequent method (6/17) for calculation. All of the studies compared LABA/LAMA with other types of interventions concluded that LABA/LAMA combinations were cost-effective therapies. Incremental QALYs of different LABA/LAMA therapies were relatively small ranging from 0 to 0.1547 QALYs. **Conclusions:** Methods developed for evaluating the cost-effectiveness of LABA/LAMA combinations had similarities. Modelling challenges were identified towards the adverse events and adherence. LABA/LAMA therapies were considered cost-effective or cost-saving strategies compared with single LAMA, ICS/LAMA or LABA+LAMA. Small difference in utilities were observed among different LABA/LAMA combinations.

PRS28

ANNUAL HEALTH INSURANCE TREATMENT COST OF NON-ALLERGIC ASTHMA BASED ON ROUTINELY COLLECTED FINANCING DATA

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Objectives: The prevalence of asthmatic diseases has been continuously increasing. Our aim was to determine the annual health insurance treatment cost of non-allergic asthma in Hungary. **Methods:** Data were derived from the financial database of the NHIFA, for the year 2018. Data analysed included annual health insurance costs, patient numbers and cost distribution calculated for age groups and sex. The following cost categories were included into the study: general practice care, home care, in- and outpatient care, medical imaging, laboratory diagnostics, pharmaceuticals and medical aids. Patients with non-allergic asthma were identified with the following code of the International Classification of Diseases 10th revision: J45.10. **Results:** In 2018, the Hungarian National Health Insurance Fund Administration spent 979.08 million Hungarian Forints (HUF) on the treatment of patients with non-allergic asthma, 3.62 million American Dollars (USD), or 3.07 million Euros (EUR). 31.2% of costs was spent on treatment of male, 68.8% on female patients. The highest patient numbers were in use of pharmaceuticals: 6,119 men (31.17%), 13,387 women (68.83%), in total 19,506 patients. Pharmaceuticals (62.19% of total health insurance costs in men, 58.55% in women), outpatient care (16.04% in men, 16.37% in women) and chronic inpatient care (4.81% in men, 8.46% in women) were the main cost drivers, all other forms of medical care amounted to 16.96% in men and 16.62% in women. Annual health care treatment cost per patient was 49,875 HUF (185 USD/156 EUR) in men and 50,339 HUF (186 USD/158 EUR) in women. **Conclusions:** Pharmaceuticals were the major cost drivers in the treatment of non-allergic asthma as its symptoms are primarily managed with the prescription of medication. Major cost drivers showed no difference between men and women. There was no significant difference in average annual health insurance costs per patient between the sexes.

PRS29

DIRECT MEDICAL COSTS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN THE UNITED STATES, 2011-2015

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Objectives: Chronic obstructive pulmonary disease (COPD) is a lung disease characterized by a persistent reduction of airflow. The objective of this study was to quantify the COPD-attributable direct medical costs in the United States in 2011-2015 and estimate the association of sociodemographic factors with the incremental costs of COPD. **Methods:** The data sources used for this study was the Medical Expenditure Panel Survey (2011-2015). Adults (≥18 years) with a COPD diagnosis who reported to currently have COPD in the year were included. We employed two-part regression models to estimate the COPD-attributable annual per person incremental medical costs for each year, adjusting for sociodemographic variables, insurance type and comorbidities. The medical costs examined were office-based visit costs, hospital-based outpatient visit costs, emergency room (ER) visit costs, inpatient admission costs and prescription drug costs, related to COPD. The costs were converted to 2015 US dollar amounts. **Results:** Across the study period (2011-2015), 5.8-6.2% were estimated to currently have COPD among US adults annually. The annual per-person COPD-attributable direct medical costs were \$10,160