

inflammatory formulations were discontinued during 12 months after asthma diagnosis. **CONCLUSIONS:** Asthma treatment utilization patterns reflect poor asthma control among newly diagnosed elderly patients, and initiation of anti-inflammatory treatment after asthma diagnosis appears to be inconsistent with asthma management guidelines.

**PRS84
DOCTORS' FAILURE IN OBSERVANCE OF THE COPD MANAGEMENT GUIDELINES: CASE OF THE CZECH REPUBLIC**

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¹CEFOR s.r.o., Prague, Czech Republic, ²Charles University Faculty of Medicine and University Hospital, Hradec Králové, Czech Republic, ³Olomouc University Hospital, Olomouc, Czech Republic **OBJECTIVES:** The primary objective of this study was to examine the accuracy of the GOLD 2011 strategy implementation among the Czech respiratory specialists, esp. with respect to the patients' classification. The secondary objective was to explore what effect a misclassification has on inadequate use of inhaled corticosteroids (ICS). **METHODS:** Multicentre cross-sectional study was conducted among COPD specialists, consisting of general questionnaire and patient-specific forms. A subjective classification into the GOLD 2011 groups as practiced by the health care professionals was examined and then compared with the objective classification achieved by rigorous software-computed classification. Adequacy of the ICS prescription was evaluated with regard to the subjective classification. **RESULTS:** GOLD 2011 were claimed to be the leading guidelines for 143 out of 144 specialists involved, often accompanied by CPPS guidelines (83.3%) and the ACP/ACCP/ATS/ERS standards (50.7%). Based on 1355 patient forms, a discrepancy between the subjective and objective classification was found in 32.8% of cases. The most common reason for incorrect classification was erroneous symptoms assessment resulting in either under-estimation in 23.9% of cases and over-estimation in 8.9% of the examined patients' records. Specialists seeing more than 120 patients per month were most likely to misclassify their condition, i. e. in 36.7% of all seen patients. In general, whilst examining the subjectively-driven ICS prescription, it was found that 19.5% of patients received ICS incorrectly, while in 12.2% of cases the ICS was erroneously omitted. Furthermore, with consideration to the objectively computed classification, it was discovered that 15.4% received ICS unnecessarily, whereas in 15.8% of cases the ICS was not prescribed though, in fact, it would be adequate seeing the patient's condition. Women failed in correct prescription more frequently than men, predominantly by overprescribing ICS. **CONCLUSIONS:** Despite high awareness of the GOLD 2011 guidelines, its implementation is insufficient. Czech specialists tend to either under-classify or overuse the ICS.

**PRS85
SOCIAL MEDIA MEETS POPULATION HEALTH: A SENTIMENT AND DEMOGRAPHIC ANALYSIS OF TOBACCO AND E-CIGARETTE USE ACROSS THE "TWITTERSPHERE"**

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OBJECTIVES: Twitter, a popular social media outlet, has become a useful tool for the study of social behavior through user interactions called tweets. The location time, and message content of tweets provide invaluable social and demographic information for an applied comparison of social behaviors across the world. Our goal is to determine the density and sentiment surrounding tobacco and e-cigarette tweets and link prevalence of word choices to tobacco and e-cigarette use at various localities. **METHODS:** All tweets with geo-spatial coordinates are salvaged from the twitter-feed, representing approximately 1% of the entire twitter-sphere. Pattern matching by tobacco and e-cigarette related keywords yield approximately 20,000 affiliated tweets per month from North America. The emotionally charged words that contribute to the positivity of various subsets of regional tweets are quantitatively measured using hedonometrics. We examined the density of these behavioral tweet indicators by region and tested the relationship between tweeted smoking sentiments and time-space-type coordinates over a 4-month span. **RESULTS:** For states with ≥ 600 tobacco related tweets (N=30), we find a strong positive correlation (Pearson's $r=0.54$, $p<0.01$) between the relative tweet density per state and the average positivity of tobacco related tweets. However, state-to-state sentiment comparisons suggest the attitude toward tobacco use can vary. We also explore the relationship between the ratio of tobacco tweets per state-to-state smoking rate estimates. Our results illustrate significant variation in smoking sentiments by state and at varying regional scopes. **CONCLUSIONS:** It is anticipated that real-time analysis of nicotine and tobacco products using tweets will allow for more targeted forms of health policy planning and intervention. Regional density of nicotine and tobacco use related tweets yield insight to the prevalence of tobacco usage per capita. Sentiment analysis across the twitter-sphere can help illuminate hazardous health behavioral trends, which may lead to better targeting of health behavior interventions.

**PRS86
SUSTAINABLE POLICY: HIGHER MEDICATION USE & ADHERENCE DURING REIMBURSEMENT OF PHARMACOLOGIC SMOKING CESSATION TREATMENTS**

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BACKGROUND: The discussion on the reimbursement of Smoking Cessation Treatment (SCT) has known many stages in The Netherlands. From January 2011, SCTs were reimbursed, until January 2012 when the reimbursement of nicotine replacement therapies (NRTs) and pharmacotherapeutic SCT (pSCT) was discontinued. As of 2013, NRTs and pSCTs were again reimbursed for a maximum of one attempt per calendar year, provided they are accompanied by behavioural counselling. **OBJECTIVES:** To assess the impact of changes in reimbursement policy of pSCT on use and adherence. **METHODS:** A retrospective dispensing database

analysis was performed on real-world observational data from the years 2010-2013 in The Netherlands. Data on use and adherence was collected, in patients who were dispensed bupropion or varenicline in community pharmacies for the first time. Adherence was defined as using minimal 80% of the in guidelines recommended duration and intensity of use. **RESULTS:** The study cohort consisted of 4,412 users of pSCT. The number of prescriptions was stable at 0.5 prescriptions per 1,000 inhabitants (dispensing prevalence, dp) during 2010. The prevalence was on average 0.8 dp, with peaks in the the 1st and 4th quarters of 2011. In 2012, the prevalence was stable at 0.4 dp. In 2013 was on average 0.5 dp, with a small peak in the 1st quarter. Adherence was 18% in 2010 and 2012 (non-reimbursement period), and 21% in 2011 and 2013 (reimbursement period). **CONCLUSIONS:** Not only the likelihood of starting smoking cessation, but also the extent of adherence to pharmacologic smoking cessation is higher during reimbursement. Increasing the awareness of health care providers on adherence issues is warranted.

**PRS87
MONTE-CARLO SIMULATION TO ESTIMATE THE HEALTH CARE COSTS AVOIDED WITH FLUTICASONE FUROATE/VILANTEROL DUE TO EXACERBATION RATE REDUCTION IN SPANISH COPD PATIENTS**

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OBJECTIVES: Exacerbations are considered one of the main drivers of costs of Chronic Obstructive Pulmonary Disease (COPD). In moderate to severe COPD patients with a history of exacerbations, the addition of an inhaled corticosteroid (ICS) to a long acting β_2 agonist (LABA) has been associated with a decreased rate of exacerbations versus treatment with LABA alone. This study aims to estimate the health care costs that the addition of the ICS Fluticasone Furoate (FF) to the LABA vilanterol (VI) could avoid versus LABA monotherapy in Spanish patients due to the reduction of the rate of exacerbations. **METHODS:** The number of moderate to severe COPD patients >40 years old with a history of exacerbation potentially treated with FF+VI was estimated from Spanish prevalence data. 1-year Monte-Carlo simulations (one simulation per patient) were developed to simulate the number of moderate and severe exacerbations and the health care costs avoided with FF+VI versus VI from the National Health System (NHS) perspective. Monte-Carlo simulation was chosen as it allows simulating the effect of changes in different parameters obtained from clinical studies to describe real-life distributions. Parameters used in the simulations were the yearly rate of moderate-severe exacerbations with FF+VI and VI obtained from pooled-analysis of two head-to-head clinical trials (NCT01009463 and NCT01017952) and the costs of moderate and severe exacerbations obtained from an observational study in real-life Spanish setting. **RESULTS:** 18,098 patients were included. FF+VI could avoid 7,424 moderate and severe exacerbations (95% confidence interval 7,411; 7,438) vs VI. The reduction in the number of exacerbations could lead to average health care costs avoided to the NHS of 3,278, 382€ (3,066, 703€; 3,336, 392€) in a year. **CONCLUSIONS:** Treatment with FF+VI could decrease the economic burden associated with COPD reducing the health care costs for the Spanish NHS due to the decreased rate of exacerbations compared with LABA (VI) monotherapy.

**PRS88
DETERMINATION OF AVAILABILITY OF ANTIMICROBIAL PREPARATIONS FOR TREATMENT OF COMMUNITY-ACQUIRED PNEUMONIA IN UKRAINE**

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OBJECTIVES: Data of british specialists show, that 5-11 out of 1000 adults have community-acquired pneumonia (CAP) every year, which is 5-12% of all cases of lower respiratory tract infections. The rate of CAP took over 3% in the structure of total respiratory organs disease rate in Ukraine within years 2007-2011. **METHODS:** The data of use of antimicrobial preparations (AP): cephalosporins (ceftriaxone), penicillins (amoxicillin and enzyme inhibitor), macrolides (azithromycin) and fluoroquinolones (ciprofloxacin, levofloxacin) for CAP treatment in Kharkiv hospital were used. Analysis of affordability as of index of payment capacity (Ca. s.) of trade names (TNs) provided in pharmaceutical market of Ukraine on indicated INN has been carried out to determine the availability of such preparations for wider population of Ukraine. **RESULTS:** Results of the AP affordability analysis made in five groups of INN, showed, that the ratio of therapy of high, middle and low availability for each AP group is different, but in all pharmacological groups except for ceftriaxone group, highly available therapy prevails. Percentage of highly available preparations in the studied groups of INN is: azithromycin (92.2%) > ciprofloxacin (74.3%) > amoxicillin and enzyme inhibitor (67.5%) > ceftriaxone (49.02%) > levofloxacin (46.94%). As of preparations of middle availability, costing 5% - 15% of average monthly salary, ceftriaxone preparations are most (49.02%), azithromycin preparations are least (6.49%). There are no low availability preparations in ciprofloxacin fluoroquinolone group. Cephalosporins and macrolides group preparations have one AP of low availability. Pharmacotherapy with application of preparations-analogous to levofloxacin, is costly, as 32.7% of preparations of this group are preparations of low availability (16 AP). **CONCLUSIONS:** Antibacterial preparations needed for treatment of CAP are present in the pharmaceutical market of Ukraine in wide range of preparations and cost. It makes them available to various social groups.

**PRS89
HOW MUCH THE APPROPRIATE TOBACCO PRICE WOULD BE?: A DISCRETE CHOICE EXPERIMENT OF GENERAL PUBLIC IN JAPAN**

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OBJECTIVES: Though tobacco price increases are effective in reducing tobacco consumption and prevalence of smoking, tobacco-tax in Japan is still lower than those in other developed countries. General public, particularly non-smokers, may think that