

OBJECTIVES: Tobacco smoke is a strong risk factor for chronic obstructive pulmonary disease (COPD), and over 300 million people are estimated to smoke in China. This study examined characteristics and treatment patterns of COPD-diagnosed patients attempting to quit smoking in urban China. **METHODS:** National Health and Wellness Survey (NHWS) 2010 and 2012 China data were analyzed. NHWS is a mixed-methodology, internet-based, nationwide survey of adults (18+ years) stratified by gender and age to represent the demographic composition of urban China. Inclusion criteria comprised self-reported diagnosis with COPD and current smokers “trying to quit” or non-smokers “in the process of quitting.” Sociodemographics, health behaviors, Charlson comorbidity index (CCI) scores (indicating degree of mortality risk), and smoking treatment utilization patterns were assessed. Descriptive statistics included percentages/frequencies for categorical variables and means/standard deviations for continuous variables. **RESULTS:** Among 1,421 respondents diagnosed with COPD, 35.5% (n=505) were smokers, among which 43.8% (n=221) were currently attempting to quit. Quit attempters were on average 41.1 years old (SD=13.1), male (76.5%), employed (86.9%), 34.8% were overweight/obese, and they had been diagnosed with COPD an average 6.9 years (SD=7.7), with 25.3% reporting moderate/severe COPD. Mean CCI was 2.53, 57.5% drank alcohol regularly, and 30.3% exercised frequently. Many reported smoking as the main cause of their COPD (57.5%), followed by illnesses/conditions (53.8%) and pollutants/airborne irritants (44.3%). Current smoking was reported by 82.8%, with 14.9% smoking daily. Smoking cessation prescription use was reported by 12.7% (n=28), among whom varenicline tartrate was used by 57.1% (n=16) for an average 20.9 months. Prescription medications were commonly received from urban/city (50%) or county (35.7%) hospitals. **CONCLUSIONS:** Among COPD patients attempting to quit smoking in urban China, few utilized prescription cessation treatments. Given the significant unmet need among the high proportion of smokers with COPD, effective smoking cessation programs are needed.

PRS27

ACCESS TO ASTHMA MEDICINES IN TEHRAN, IRAN

Ghiyasi G¹, Rashidian A², Kebriaee A², Dorkoosh FA¹, Salamzadeh J³

¹TUMS, tehran, Iran, ²Tehran University of Medical Sciences, Tehran, Iran, ³Shahid Beheshti University of Medical Sciences, Tehran, Iran

OBJECTIVES: Asthma is a chronic disease afflicting more than 300 million people throughout the world. Our aim was to examine the availability, pricing and affordability of asthma medicines in Tehran. **METHODS:** We followed the methodological recommendations developed of the World Health Organization and Health Action International on measuring medicine prices, availability, affordability and price components. Data was collected from a random selection of 30 public sector facilities and 90 private sector retail pharmacies in 22 districts of Tehran in September 2012. **RESULTS:** Inhaled Corticosteroids was found in over 25% of the pharmacies. The availability of oral corticosteroids and short acting beta agonists was poor in all districts of Tehran. Locally manufactured most commonly prescribed medicines (beta-agonist and corticosteroid sprays) were affordable as the cost of one month utilization was about 0.3 of one day (equivalent to one day) earning for the unskilled worker for the insured (uninsured). However the availability of the asthma medicines were limited and ranged from less than 5% (for the imported sprays) to about a third (for the locally manufactured sprays) of the outlets. **CONCLUSIONS:** The poor availability of inhalers at public facilities affects those patients who depend on these facilities for treatment and medications. In relation with imported asthma medicines, results indicate access to asthma medicine has been reduced in most medicines, perhaps due to the international sanctions that affected the country in 2012. Further interventions are required to improve access to asthma medicines at the times of financial hardship and international sanctions affecting the ability of the importers and producers to provide medicines.

PRS28

ECONOMIC IMPACT OF LEVALBUTEROL VERSUS ALBUTEROL IN LOW-INCOME POPULATION

Yuan J, Lu K

South Carolina College of Pharmacy – USC Campus, Columbia, SC, USA

OBJECTIVES: Short-acting β_2 -agonists - albuterol and levalbuterol - are widely prescribed to prevent asthma exacerbations. However, there are significant cost differences between the two medications. The objective of this study is, therefore, to examine the economic impact of levalbuterol versus albuterol on total health care expenditure in a high-risk, low income asthma population. **METHODS:** A retrospective cohort study was conducted among asthmatic patients aged 2-64 years old who received levalbuterol or albuterol in the South Carolina Medicaid database between January 2001 and December 2012. Expenditures were inflated to 2011 dollars using the gross domestic product deflator, and adjusted using generalized linear models with a gamma distribution and log-link function. Propensity score matching was performed to minimize the possible bias related to unbalanced groups. **RESULTS:** A total of 9,370 asthma patients were included in the cohort (levalbuterol: 1,652; albuterol: 7,718). The annual spending on levalbuterol was approximately 5 times more than albuterol (\$272.6 vs. \$56.0, p<.001). After adjustment for age, sex, race, year of index date, length of asthma, and proportions of days covered by asthma control medications, levalbuterol group demonstrated lower asthma-related expenditures on emergency department (\$101.3 vs. \$143.1, p<.001), hospital (\$40.8 vs. \$85.0, p<.001), outpatient facility (\$77.6 vs. \$109.1, p<.001) visits, and total health care (\$386.3 vs. \$488.1, p<.001). However, there were no statistically significant differences between levalbuterol and albuterol on total health care expenditures (levalbuterol: \$4041.7 vs. albuterol: \$3903.1, p=.41). This nonsignificant difference remained when using the propensity score matching method. **CONCLUSIONS:** More than 300 million people suffer from asthma worldwide. The use of levalbuterol was associated with lower asthma-related costs on ED visits, hospitalizations or outpatient facilities. These cost savings, however, failed to offset the high cost of acquiring levalbuterol, suggesting that levalbuterol did not generate greater economic impact than albuterol on low-income asthma population.

SENSORY SYSTEMS DISORDERS – Clinical Outcomes Studies

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COMPARING THE EFFICACY OF ANTI-VASCULAR ENDOTHELIAL GROWTH FACTOR DRUGS FOR TREATMENT OF AGE-RELATED MACULAR DEGENERATION: A CLINICAL LITERATURE REVIEW AND META-ANALYSIS

Zhao R, Su W, Carlson A

University of Minnesota, Minneapolis, MN, USA

OBJECTIVES: Review and compare the efficacy of four anti-VEGF (vascular endothelial growth factor) drugs for treatment of neovascular age-related macular degeneration (AMD). **METHODS:** PubMed and clinicaltrials.gov databases were searched to identify studies of four anti-VEGF drugs: ranibizumab, bevacizumab, aflibercept, and pegaptanib. Eight randomized controlled trials were selected. Fixed-effects model was used to pool the data to determine Mantel-Haenszel adjusted relative risk. The primary outcome was relative risk (RR) of losing 15 or more letters of visual acuity at one year follow-up. The secondary outcome was RR of gaining 15 or more letters of visual acuity at one year follow-up. **RESULTS:** Ranibizumab 0.3 mg or ranibizumab 0.5 mg significantly reduced the risk of losing 15 or more letters of visual acuity compared to sham (RR: 0.15 and 0.13 respectively, p<.05). RR of visual acuity gain of 15 letters or more was 5.5 for ranibizumab 0.3 mg versus sham (95% CI: 3.5-8.67). The visual acuity gain was also significantly higher for ranibizumab 0.5 mg than ranibizumab 0.3 mg (RR: 1.24, p<.05). There were no significant differences between bevacizumab 1.25 mg and ranibizumab 0.5 mg in terms of visual acuity loss or gain (RR: 1.17 and 1.04 respectively, p: 0.46 and 0.69 respectively). Aflibercept 0.5 mg have comparable efficacy as ranibizumab 0.5 mg. Pegaptanib reduced the risk of losing 15 letters or more versus sham (RR: 0.67, p<.05). The RR of gaining 15 or more letters for visual acuity was 3.3 for pegaptanib versus sham (95% CI: 1.22-7.52). **CONCLUSIONS:** All four anti-VEGF drugs reduced the risk of visual acuity loss in patients with AMD. Ranibizumab 0.5 mg is associated with more visual acuity gain than ranibizumab 0.3 mg. However, there is no direct evidence that one treatment is better than the other. More studies are needed to compare the efficacy and safety between these drugs.

PS52

PHARMACOLOGICAL TREATMENTS IN PREGNANT WOMEN WITH PSORIASIS

Lin HC¹, Hunnicutt JN¹, Moustafa FA², Rohr AL², Huang KE², Balkrishnan R³, Feldman SR²

¹Indiana University, Bloomington, IN, USA, ²Wake Forest University, Winston-Salem, NC, USA,

³University of Michigan, Ann Arbor, MI, USA

OBJECTIVES: Psoriasis treatment in pregnant women requires weighing the risks and benefits to both mother and fetus. Little is known about how psoriasis is treated during pregnancy. This study sought to identify the medications most commonly prescribed in this situation. **METHODS:** The Truven 2003-2007 MarketScan™ Medicaid Database was used. Pregnant women with psoriasis were identified by inpatient and outpatient records. The investigators created an algorithm to identify eligible pregnant women and approximated their gestational periods using this claims database to identify drug use during pregnancies. The prevalence of drug use was determined by the proportion of prescriptions. The top 10 most popular prescriptions as well as methotrexate were identified based on the proportion overall and by trimester of pregnancy. Use of topical corticosteroids were revealed by drug potency. **RESULTS:** Based on the algorithm created by the investigators, 974 pregnant women with psoriasis were identified, and 386 (39.6%) of them filled psoriasis drugs and saw a physician for psoriasis before pregnancy. The most common medications prescribed most patients were topical corticosteroids (n=122, 31.6%). Of those patients given topical corticosteroids, the majority were low to mid-potency (64.8%). The second most common drug type (n=41, 10.4%) used was “other” products such as topical vitamin-D analogues and pimecrolimus. This was followed by biologics (n=2, 0.5%) and other systemic treatments (n=2, 0.5%). Two patients received methotrexate during their pregnancy- one of which received it for the entire gestational period. **CONCLUSIONS:** This study revealed the prevalence of psoriasis medications used in pregnant women with psoriasis, which could provide information in how risks and benefits of psoriasis treatment in pregnant women were weighed. In general, dermatologist prescribing patterns were in line with treatment recommendations for pregnant women. However, there were some treatments prescribed that were not suitable for pregnant women. Care should be to ensure safe treatments for pregnant women.

SENSORY SYSTEMS DISORDERS – Cost Studies

PS53

THE ECONOMIC BURDEN AND THEIR PREDICTORS IN PRESCHOOL CHILDREN WITH DENTAL CARIES IN URBAN BEIJING

Zhang Y¹, Yang L²

¹Peking University, Beijing, Beijing, China, ²Peking University, Beijing, China

OBJECTIVES: Dental caries is associated with poor quality of life and higher health care cost. This study aimed to assess the cost of treatment of dental caries of preschool children (3 to 6 years old) and to characterize predictors of these costs. **METHODS:** 194 preschool children were selected by random sampling from six kindergarten in urban Beijing. Oral health examinations of these children were performed in Stomatological Hospital of Peking University and questionnaires were distributed to all tested preschool children's parents. All information of children's dietary and oral hygiene habits, demographic characters, clinical, parents' oral “knowledge, attitudes, and practices” and costs were collected for the analysis. We used generalized estimating equations to examine potential predictors of the costs. **RESULTS:** Among 194 dental caries children (mean age = (4.4±1.1) years; 50% female), the average cost of treatment was RMB718.6 yuan (median:¥400, IQR:¥150-¥1000). The multiple linear regressions showed that the treatment cost of children with 5 ~ 8 dental caries had 24.2% higher costs than those with 1 ~ 5 dental caries; (P<.05). The treatment cost of children with more than 8 dental caries had 47.8% higher costs than those with 1 ~ 5 dental caries; (P<.05). **CONCLUSIONS:**