Ethnic disparities were found in the use of inhaled corticosteroids among asthma patients as diagnosed with moderate chronic obstructive pulmonary disease in Taiwan. A retrospective study was done using 2010 and 2011 Medical Expenditure Panel Survey (MEPS) data to identify patients with asthma who were using inhaled corticosteroids. The objective of this study is to determine socio-demographic factors associated with inhaled corticosteroid use and health care expenditures. RESULTS: There were 151 asthma patients identified that reported inhaled corticosteroids use according to availability of data on days of supply. The average days of inhaled corticosteroid use among asthma patients was 125 days over the course of a year. Ethnicity was shown to be a significant predictor of inhaled corticosteroid use. Caucasians were found to have significantly lower supply of medication (70 days) compared to non-Hispanics. Multivariate analysis showed that ethnicity had no effect on total health care expenditures. CONCLUSIONS: Ethnic disparities were found in the use of inhaled corticosteroids among asthma patients. However, no difference in health care expenditures shows that access is not a factor for ethnic groups. Future research should investigate reasons for disparities in inhaled corticosteroid use among asthma patients. The main limitation of this study was that it was observational in nature.

**PRSE5**

**THE SEVERE ASTHMA POPULATION IN THE UNITED STATES: CLAIMS-BASED ANALYSIS OF OUTCOMES IN A GLOBAL INITIATIVE FOR ASTHMA (GINA) STEPS 4/5**

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OBJECTIVES: Increased asthma severity is associated with worsening clinical outcomes, but little is known about outcomes for very severe patients. The objective of this study was to assess the economic and health care utilization burden in the year before and after treatment escalation to GINA steps 4/5. METHODS: Using 2003-2011 MarketScan data, three asthma treatment cohorts (age ≥12-75) were identified: omalouzamab, high intensity corticosteroids (HICS; ≥1,000 μg/day inhaled fluticasone equivalent or oral prednisone), and high-dose inhaled corticosteroids (HDICS; ≥500 < 1,000 μg/day inhaled fluticasone equivalent). Inclusion required “stable therapy”, defined as three months of therapy within the first three months after the index (date of first prescription), and continuous eligibility. Negative binominal Tobit, OLS and Logistic regressions were used depending on the outcome variable, controlling for sociodemographics and chronic comorbidity. RESULTS: Of 19,227 patients, 856 initiated omalozumab, 6,926 initiated HICS, and 11,445 initiated HDICS. Patients had a heavy asthma polypharmacy burden which increased with increasing severity. Outpatient visits, prescription drug use, home health care and specialty visits increased from baseline to follow-up for all treatment cohorts; however, inpatient visits and ER visits declined. Annual health care expenditures increased for all cohorts, markedly for omalozumab (median $9,600 to $29,800). Annual out-of-pocket expenses (copayments, coinsurance and deductibles) increased and were substantial for all treatment cohorts: follow-up year: Omalozumab $2,391, HICS $1,827, HDICS $1,457. CONCLUSIONS: Omalozumab was more effective and immediate patient and inpatient care in the year prior to treatment escalation. Patients at the upper end of the asthma treatment continuum experienced a heavy polypharmacy burden and high out-of-pocket costs after treatment escalation to omalozumab or medium-high dose corticosteroids, suggesting potential room for improvement in treatment paradigms.

**PRS64**

**UTILIZATION OF SMOKING CESSATION PRODUCTS IN THE MISSISSIPPI MEDICAID FE-FEE-SERVICE POPULATION**

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OBJECTIVES: To evaluate the prescribing rate of each type of smoking cessation medication among adult smokers in 2011. METHODS: A retrospective cohort study was conducted using General Electric (GE) health care clinical data. Andersen’s Health Service Utilization model was used as conceptual framework. The outcome variable was being abstinent or not at 1 year. Independent variables were integrated into predisposing, enabling, need and other determinants, including age, gender, race, region, payment type, specialty group, comorbidity, obesity, number of cigarettes smoked per day, smoking counseling, and alcohol consumption. Three multivariate logistic regression models were conducted to identify predictors of successful outcome among adult smokers prescribed each type of smoking cessation medication. RESULTS: In total, we identified 132,885 adult smokers who were newly prescribed varenicline, 4,045 adult smokers who were newly prescribed bupropion and 38,011 adult smokers newly prescribed nicotine replacement therapy (NRT) between 2006 and 2011. Among smokers who were newly prescribed varenicline, male smokers were less likely to be abstinent compared with female smokers (OR: 0.878, 95% CI: 0.851-0.907). Among smokers being newly prescribed bupropion, smokers with depression (OR: 1.551, 95% CI: 1.111-2.164) were more likely to quit compared with those without depression. Among smokers being newly prescribed NRT, male smokers were more likely to be abstinent compared with female smokers (OR: 1.073, 95% CI: 1.011-1.136). Smokers with COPD (OR: 1.249, 95% CI: 1.121-1.929) were more likely to quit compared with those without COPD. CONCLUSIONS: Each different type of cessation medication may be particularly beneficial to certain sub-populations in real world. NRT may be more effective among patients with COPD compared to those without COPD. Bupropion may be more beneficial to smokers with depression compared to those without depression. NRT may be more beneficial to male smokers compared to female smokers. Varenicline may be more beneficial to female smokers compared to male smokers.

**PRSE6**

**PREDICTORS OF A SUCCESSFUL CESSATION OUTCOME AMONG ADULT SMOKERS USING SMOKING cessation MEDICATION**

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OBJECTIVES: To identify and compare predictors of a successful cessation outcome among adult smokers prescribed each type of smoking cessation medication. METHODS: A retrospective cohort study was conducted using General Electric (GE) health care clinical data. Andersen’s Health Service Utilization model was used as conceptual framework. The outcome variable was being abstinent or not at 1 year. Independent variables were integrated into predisposing, enabling, need and other determinants, including age, gender, race, region, payment type, specialty group, comorbidity, obesity, number of cigarettes smoked per day, smoking counseling, and alcohol consumption. Three multivariate logistic regression models were conducted to identify predictors of successful outcome among adult smokers prescribed each type of smoking cessation medication. RESULTS: In total, we identified 132,885 adult smokers who were newly prescribed varenicline, 4,045 adult smokers who were newly prescribed bupropion and 38,011 adult smokers newly prescribed nicotine replacement therapy (NRT) between 2006 and 2011. Among smokers who were newly prescribed varenicline, male smokers were less likely to be abstinent compared with female smokers (OR: 0.878, 95% CI: 0.851-0.907). Among smokers being newly prescribed bupropion, smokers with depression (OR: 1.551, 95% CI: 1.111-2.164) were more likely to quit compared with those without depression. Among smokers being newly prescribed NRT, male smokers were more likely to be abstinent compared with female smokers (OR: 1.073, 95% CI: 1.011-1.136). Smokers with COPD (OR: 1.249, 95% CI: 1.121-1.929) were more likely to quit compared with those without COPD. CONCLUSIONS: Each different type of cessation medication may be particularly beneficial to certain sub-populations in real world. NRT may be more effective among patients with COPD compared to those without COPD. Bupropion may be more beneficial to smokers with depression compared to those without depression. NRT may be more beneficial to male smokers compared to female smokers. Varenicline may be more beneficial to female smokers compared to male smokers.