

pared all-cause utilization and costs associated with once-monthly paliperidone palmitate (PP) and oral atypical antipsychotics (OAT) in Medicaid and commercially-insured schizoaffective disorder populations. **METHODS:** Adults with schizoaffective disorder and ≥ 2 claims for PP or OAT between 2009-2012 were identified in the MarketScan Medicaid and Commercial Databases, and followed 6 months before and 12 months after initiating PP or OAT. Weighting and marginal structural modeling controlled for cohort differences and time-varying confounding to estimate patient-month utilization and costs. **RESULTS:** Medicaid PP patients ($n=1320$) were more likely male (53% vs. 42%, $p<0.05$) and younger (mean age 38 vs. 40 years, $p<0.05$) than OAT patients ($n=4216$). Pre-index mood stabilizer use appeared similar for PP and OAT patients (55% vs. 53%, $p=0.42$), but antidepressants were less common among PP patients (60 vs. 69%, $p<0.05$). Risk of all-cause and mental health hospitalization and emergency department utilization was reduced (25.1%, 27.8%, 11.1% respectively, all $p<0.05$) in patient-months with PP administration. Lower mean inpatient (\$-185, 95% confidence interval [CI] \$-40-\$-331) and outpatient (\$-229, 95% CI \$-69-\$-389) costs in these months partially offset higher mean drug costs (\$1136, 95% CI \$1063-\$1209), reducing the modeled monthly cost differential associated with PP vs. OAT to \$722 (95% CI \$526-\$917). Patient characteristics and utilization and cost trends for commercial PP ($n=167$) and OAT ($n=2044$) populations were similar to those observed in the Medicaid sample, although cost offsets did not reach statistical significance. **CONCLUSIONS:** Drug costs were higher in patient-months with PP administration; however, compared to patient-months without PP administration, there was a 25.1% reduction in all-cause hospitalization risk and a 24.1% reduction in inpatient costs.

PMH25

CHANGE IN HEALTHCARE UTILIZATION AND COSTS IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER (MDD) INITIATING ADJUNCTIVE THERAPY WITH SECOND-GENERATION ANTIPSYCHOTICS (SGAs)

Hagiwara M¹, Sun SX², Moynahan A¹, Bornheimer R¹, Oster G³

¹Policy Analysis Inc. (PAI), Brookline, MA, USA, ²Forest Research Institute, Jersey City, NJ, USA,

³Policy Analysis Inc. (PAI) and Managing Co-Director, MINERVA Health Economics Network, Brookline, MA, USA

OBJECTIVES: While antidepressant medications constitute the mainstay of pharmacologic management of MDD, patients with poor response are sometimes treated adjunctively with SGAs, such as aripiprazole, quetiapine, and olanzapine. This study estimated healthcare utilization and costs among patients with MDD initiating adjunctive therapy with SGAs, using a large US healthcare claims database. **METHODS:** Adult patients receiving oral SGAs between 2009 and 2011 without evidence of schizophrenia or bipolar disorder were identified in the Truven MedStat MarketScan® Commercial Claims and Encounters and Medicare Supplemental and Coordination of Benefits Database. The "index date" was defined as the date of first receipt of an SGA. Patients with enrollment gaps during the 12-month period before the index date (pre-index period) or after the index date (follow-up period), no diagnosis of MDD during the pre-index period, no evidence of antidepressant medications overlapping their index date, or evidence of SGA prescriptions during the pre-index period were excluded. Healthcare utilization and costs were examined over the pre-index and follow-up periods. Healthcare encounters with diagnoses of MDD (ICD-9-CM 296.2, 296.3), and SGA and antidepressant prescriptions were designated "MDD-related". **RESULTS:** A total of 17,697 patients met study criteria. The most frequently prescribed SGA was aripiprazole (56.3%), followed by quetiapine (34.3%), risperidone (13.4%), and olanzapine (7.8%). During the pre-index and follow-up periods, 27% and 7.5% of patients, respectively, were hospitalized for MDD ($p<.0001$), 37% and 20% were hospitalized for any reason ($p<.0001$), and 37% and 31% had ≥ 1 emergency department (ED) visits ($p<.0001$). Mean MDD-related total health care costs during the pre-index and follow-up periods were \$5427 vs \$6222, respectively ($p<.0001$). The average cost of SGAs during follow-up was \$2154. **CONCLUSIONS:** Initiation of adjunctive therapy with SGAs in MDD patients is associated with a lower incidence of hospitalization (MDD-related and all-cause) and ED visits.

PMH26

COMPARING HEALTHCARE RESOURCE UTILIZATION AND COSTS AMONG SCHIZOPHRENIC PATIENTS WHO INITIATED TYPICAL VS. ATYPICAL LONG-ACTING INJECTABLES IN THE U.S. VETERAN POPULATION

Baser Q¹, Kariburyo MF², Du J², Xie L²

¹STATinMED Research, The University of Michigan, MEF University, Ann Arbor, MI, USA,

²STATinMED Research, Ann Arbor, MI, USA

OBJECTIVES: To evaluate healthcare resource utilization and costs among schizophrenic patients who initiated typical and atypical long-acting injectables (LAIs) in the U.S. veteran population. **METHODS:** Using the Veterans Health Administration (VHA) Medical SAS datasets, patients with ≥ 1 pharmacy claim for LAIs were identified from 01OCT2005 through 30SEPT2012. The first LAI date was designated as the index date. Patients were required to be age ≥ 18 years, have continuous health plan enrollment for 12 months pre-index date and a schizophrenia diagnosis (International Classification of Diseases, 9th Revision, Clinical Modification [ICD-9-CM] code 295.xx) during the study period. Patient data was observed until the earlier date of death or the end of the study period, and patients were assigned to typical LAI (fluphenazine, haloperidol, perphenazine) or atypical LAI (aripiprazole, olanzapine, paliperidone, risperidone) antipsychotic cohorts. All-cause (follow-up) and psychiatric disorder-related healthcare resource utilization and costs were assessed. Follow-up health care costs were adjusted to per-patient-per-month. The generalized linear model (GLM) was used to assess cost and utilization differences among the cohorts. **RESULTS:** A total of 4,796 patients were identified (Typical LAI cohort: $N=1,941$; Atypical LAI cohort: $N=2,855$). Typical LAI patients were older (age 53.81 vs. 50.94 years, $p<0.0001$) and more likely to be black (34.47% vs. 28.27%, $p<0.0001$) than atypical LAI patients. After adjusting for baseline differences using GLM, more patients prescribed typical LAIs had all-cause emergency room [ER] visits (61.66% vs. 58.11%, $p=0.024$) and inpatient stays (63.11% vs. 59.00%,

$p=0.008$) and psychiatric disorder-related ER visits (33.83% vs. 30.05%, $p=0.011$) than those prescribed atypical LAIs. However, typical LAI patients incurred lower all-cause pharmacy (\$197 vs. \$433, $p<0.001$), total (\$2,850 vs. \$3,073, $p=0.048$) and psychiatric disorder-related total costs (\$1,615 vs. \$1,624, $p=0.908$) than atypical LAI patients. **CONCLUSIONS:** Although patients who initiated typical LAIs had high healthcare resource utilization, their economic burden was lower compared to those who initiated atypical LAIs.

PMH27

HEALTH RESOURCE USE AND COST ANALYSIS OF SCHIZOPHRENIA PATIENTS PARTICIPATING IN A RANDOMIZED, MULTICENTER, DOUBLE-BLIND, RELAPSE PREVENTION STUDY OF PALIPERIDONE PALMITATE 3-MONTH FORMULATION

Benson C¹, Chirila C², Graham J², Radder C², Zheng Q², Woodruff K³

¹Janssen Scientific Affairs, LLC, Titusville, NJ, USA, ²RTI-Health Solutions, Research Triangle Park, NC, USA, ³Janssen Global Services, LLC, Titusville, NJ, USA

OBJECTIVES: Clinical trial PSY-3012 was a randomized, multicenter, double-blind, parallel-group, relapse-prevention study of paliperidone palmitate 3-month injection (PP3M) versus placebo. Adults with schizophrenia received a once-monthly injection (PP1M) in an open-label (OL) 17-week transition phase, then a single PP3M injection for OL 12-week maintenance. Stabilized subjects were then randomized to PP3M or placebo in the double-blind (DB) phase. Exploratory objectives were to compare health resource utilization (HRU) and costs between PP3M and placebo. **METHODS:** HRU data were collected at the start of transition (OL baseline) and maintenance, at the end of open-label (DB baseline), and every 12 weeks during DB until end of study/early withdrawal. Information collected included hospitalizations, ER visits, day or night clinic stays, and outpatient treatment. Incidence rates (i.e., person-time) at OL baseline and during OL and DB phases were calculated for these resources. **RESULTS:** Overall, 145 subjects were randomized to placebo and 160 subjects to PP3M during the DB phase. During the DB phase, incidence rate was <1 event per person-year for all resources except outpatient treatment visits in both treatment groups and was higher for placebo than for PP3M. Hospitalizations with psychiatric and social reasons: incidence rate at baseline OL was similar between placebo and PP3M (0.51 vs. 0.58 hospitalizations per person-year), decreased to comparable values during the OL phase (0.12 vs. 0.14 hospitalizations per person-year), and increased during the DB phase to 0.45 (placebo) and 0.15 (PP3M). Other HRU resources showed analogous trends. **CONCLUSIONS:** During the DB phase, the incidence rate of HRU was numerically lower for PP3M than placebo. The incidence rate of most HRU was comparable between placebo and PP3M during the OL period, but increased more for placebo than for PP3M during the DB period. Ongoing analysis of the cost data will provide further insight into the economic impact of PP3M.

PMH28

THE IMPACT OF ANXIETY ON HEALTHCARE UTILIZATION AND COSTS AMONG RESPONDENTS FROM THE CO-MORBIDITIES AND SYMPTOMS OF DEPRESSION (CODE) STUDY

Stephenson JJ¹, Grabner M¹, Faries D², Palli SR³, Robinson R²

¹HealthCore Inc., Wilmington, DE, USA, ²Eli Lilly, Indianapolis, IN, USA, ³CTI Clinical Trial & Consulting, Cincinnati, OH, USA

OBJECTIVES: To assess the impact of anxiety and of the depression-anxiety interaction on healthcare utilization and costs among patients with depression. **METHODS:** Survey-eligible adults with ≥ 2 medical claims for depression from 6/1/2009-5/31/2010 in the HealthCore Integrated Research Database were invited to participate in this retrospective/prospective study. Consenting respondents completed index and 6-month surveys assessing health measures. Significant anxiety was classified into 4 categories (persistently anxiety free, persistent anxiety, resolving anxiety, and emerging anxiety) based on Generalized Anxiety Disorder (GAD-7) scores at both surveys. Respondents' survey data were linked to 24-months of claims data (+12 months from index survey date). Mean annual post-index costs were compared using non-parametric bootstrapping adjusting for initial differences in demographics and health status using propensity score stratification. Similar models were created adding the interaction of remission status. **RESULTS:** Of 910 respondents with both surveys, 79.3% were female and mean (SD) age was 47.6 (11.4) years. Most respondents were persistently anxiety free (52.9%), followed by persistent anxiety (23.4%), resolving anxiety (15.1%), and emerging anxiety (8.7%). Higher post-index all-cause healthcare costs were observed in respondents with persistent anxiety compared to others (combined group of resolving, emerging, or persistently anxiety-free) (\$15,027 [\$1,838] vs. \$11,311 [\$680], $p=.0018$). Persistent anxiety respondents had significantly higher mental health-related costs than persistently anxiety free respondents (\$4,226 [\$551] vs. \$3,044 [\$332], $p<.001$). Respondents with anxiety and non-remitted depression had significantly higher all-cause and mental-health related costs vs. respondents without anxiety and non-remitted depression, with mean differences of \$2,480 (95% CI: \$337 to \$4,685, $p<.0001$) and \$789 (95% CI: \$146 to \$1,428, $p<.0001$), respectively. **CONCLUSIONS:** Respondents with a history of depression and persistent anxiety continue to have increased healthcare costs. Anxiety was a key factor irrespective of whether depression resolved. This study emphasizes the importance of treating patients to full resolution of all symptoms.

PMH29

HEALTHCARE RESOURCE UTILIZATION AND COSTS FOR SCHIZOPHRENIA PATIENTS INITIATING ASENAPINE OR ANOTHER BRANDED- ATYPICAL ANTIPSYCHOTIC MEDICATION

Nguyen K¹, Chitnis A², Sun SX¹, Dixit S¹, Wang R², Tawah A², Boulanger L²

¹Forest Research Institute, Jersey City, NJ, USA, ²Evidera, Lexington, MA, USA

OBJECTIVES: To examine differences in healthcare resource use (HRU) and cost among patients with schizophrenia initiating therapy with asenapine versus other branded atypical antipsychotics ("OBAP") (i.e., aripiprazole, lurasidone, iloperidone, paliperidone). **METHODS:** Using two large US healthcare claims databases—one