unmedicated, ADHD in adults has a negative impact on labor force participation in the US. Irrespective of whether or not the ADHD is medicated, its presence also has a significant impact on increased absenteeism and presenteeism.

**PMH57**

**PSYCHIATRIC-RELATED HEALTH CARE COSTS AND RISK OF HOSPITALIZATION AMONG MEDICAID PATIENTS WITH TYPE I BIPOLAR DISORDER WHO RELAPSE FREQUENTLY**

Durden E1, Muser E2, Choi J3, Bagalman E4, Dirani R3

*Ortho-McNeil Janssen Scientific Affairs, LLC, Bethesda, MD, USA; Ortho-McNeil Janssen Scientific Affairs, LLC, O’Fallon, MO, USA; Ortho-McNeil Janssen Scientific Affairs, LLC, Titusville, NJ, USA; Thomson Reuters, Washington, DC, USA*

**OBJECTIVES:** To examine psychiatric-related health care costs and inpatient utilization among patients with type I bipolar disorder who relapse frequently with a large Medicaid database. **METHODS:** A large multistate Medicaid claims database (MarketScan®) was used to identify patients aged 18 to 64 years with type I bipolar disorder; ≥1 prescription claim for lithium, an anticonvulsant, or an antipsychotic between January 1, 2004 and December 31, 2005; and ≥24 months’ continuous enrollment. Frequent relapse (FR) was defined as ≥2 clinically significant events (CSEs) occurring during a 12-month identification period beginning with the initial CSE (if any). CSEs included emergency room (ER) visits or inpatient hospitalizations (IH) with a principal diagnosis of bipolar disorder or a change in bipolar disorder medication(s). Patients were followed for a subsequent 12-month period to evaluate health care utilization and associated costs. Generalized linear modeling was used to estimate the impact of FR on psychiatric-related health care costs; logistic regression was used to estimate the impact of FR on psychiatric ER and IH visits. **RESULTS:** Of 5,527 patients with type I bipolar disorder, 53% relapsed frequently. Of the patients with FR, 75% were female. Close to one-third (29%) of patients who relapsed frequently in the identification period also relapsed frequently in the follow-up period. During the 12-month follow-up period, patients with FR had higher adjusted per-patient psychiatric-related health care costs (mean $6,014 vs $3,495; P < 0.001), 3.7 times greater odds of psychiatric IH (P = 0.01), and 3.1 times greater odds of psychiatric-related ER visits (P < 0.01) than patients who did not relapse frequently. **CONCLUSIONS:** Medication adherence differed significantly (P < 0.01) among patients with type I bipolar disorder who relapsed frequently with significantly higher adjusted psychiatric-related health care costs and greater odds of IH and ER events in a subsequent period than patients who did not relapse frequently. Supported by funding from Ortho-McNeil Janssen Scientific Affairs, LLC.

**PMH58**

**ASSESSMENT OF HEALTH CARE UTILIZATION AND COST AMONG PATIENTS WITH BIPOLAR I DISORDER TREATED WITH ANTIPSYCHOTIC THERAPY IN A MULTISTATE MEDICAID POPULATION**

Lang K1, Aboussou A1, Sizer E1, Skinner M1, Korn J1, Duran R1, Manen J1

*Boston Health Economics, Inc, Waltham, MA, USA; Ortho-McNeil Janssen Scientific Affairs, LLC, Titusville, NJ, USA; Ortho-McNeil Janssen Scientific Affairs, LLC, O’Fallon, MO, USA; Ortho-McNeil Janssen Scientific Affairs, LLC, Bethesda, MD, USA*

**OBJECTIVES:** To estimate the rates and costs of all-cause and psychiatric-related hospitalizations and ER visits among patients with bipolar I disorder. **METHODS:** Retrospective cohort analysis of multistate Medicaid patients who were aged ≥18 years, had ≥1 inpatient or ≥2 outpatient medical claims indicating bipolar I disorder (ICD-9-CM codes 296.0X-296.1X, 296.4X-296.7X), and filled ≥1 prescription for an antipsychotic medication between January 1, 2004, and December 31, 2006. Patients were followed for 1 year from the date of first, or index, antipsychotic prescription. Patients were required to be continuously eligible for Medicaid without dual Medicare eligibility from 1 year before (baseline) through 1 year after (follow-up) index, and were required to receive ≥1 additional antipsychotic claim during follow-up to ensure a treated population. Descriptive statistics were generated on the use and costs (proxied by Medicaid payments) of hospitalizations and ER visits, both all-cause and psychiatric-related (ICD-9-CM codes 290.XX-291.XX). **RESULTS:** 9,410 patients met study eligibility criteria. Mean (±SD) patient age was 38.0 (±11.9) years, 74% were female, and 75% were white. Approximately 31% and 57% had preexisting diagnoses of substance abuse and psychiatric conditions, respectively. During follow-up, 40% of patients were hospitalized or had psychiatric-related CSEs. All-cause and psychiatric-related ER visits occurred in 67% and 29% of patients, with an average (±SD) of 6.1 (±10.9) and 0.9 (±2.7) visits per patient, respectively. Average (±SD) costs were $6,966 (±$10,374) and $6,961 (±$10,288) for all-cause and psychiatric-related hospitalizations, and $158 ($218) and $256 ($416) for all-cause and psychiatric-related ER visits, respectively. **CONCLUSIONS:** Hospitalizations, ER visits, and costs were substantial among patients with bipolar I disorder. Studies investigating predictors of hospitalizations and ER visits in this patient population are warranted. Supported by funding from Ortho-McNeil Janssen Scientific Affairs, LLC.

**PMH59**

**SYSTEM DYNAMICS SIMULATION FOR ACUTE SCHIZOPHRENIA TREATMENT**

Nakahara N1, Kobayashi M2, Mano T3, Nakamura J4

*Eli Lilly Japan, Kobe, Japan; *Creon Research & Consulting Inc, Tokyo, Japan; Japan, *Tama University of Occupational and Environmental Health, Kitakyushu, Japan*

**OBJECTIVES:** It is important for the management of a psychiatric hospital having an acute-care ward to estimate medical practice revenues under different conditions. We developed a system dynamics (SD) simulation model for the treatment of acute schizophrenia to investigate the effect of the treatment of patients with acute schizophrenia on the hospital management. **METHODS:** We developed an SD simulation model for acute admission and discharge at a psychiatric acute-care ward. The model assumed an imaginary, newly built psychiatric hospital consisting of 3 types of wards: a psychiatric acute-care ward, a general psychiatric ward, and a psychiatric nursing-care ward, respectively. The number of newly admitted patients was supposed to be 10 per month. We compared the total medical practice revenues at 36 months. **RESULTS:** Up to 9 months of outpatient treatment, the total medical practice revenues increased and then decreased at 12 months. A 2-way sensitivity analysis on the first-time admissions and the duration of outpatient treatment revealed that the total medical practice revenues were higher when the number of newly admitted patients was ≥3 and at 9 months of outpatient management; however, when the number of newly admitted patients was ≥2 and ≥15, the maximum medical practice revenue was obtained at 12 months of outpatient management. **CONCLUSIONS:** Total medical practice revenue changes depending on the rates of discharge from a psychiatric acute-care ward, the duration of outpatient treatment and the number of newly admitted patients. A budget plan for each psychiatric hospital having a psychiatric acute-care ward should be based on the calculation of those parameters and a systematic approach to patient management is important.

**Mental Health – Patient-Reported Outcomes Studies**

**PMH60**

**ADHERENCE TO MEDICATION FOR ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD): DOES THE TIMEFRAME MATTER?**

Barner JC, Khoza S, Oladapo A

*The University of Texas at Austin, Austin, TX, USA*

**OBJECTIVES:** ADHD medications frequently take ‘drug holidays’ during the summer months. The study objective was to compare ADHD medication adherence for an entire year (EY-365 days) and the school year (SY-270 days) by medication class and type. **METHODS:** Continuously enrolled Texas Medicaid children (518 years) who had ≥2 prescription claims for an ADHD medication served as the study population. EY and SY (September 1-May 31) prescription claims were extracted from July 2012-December 2008. Prescription claims were grouped by medication class [immediate release(IR), extended release(ER), long-acting(LA), non-stimulant(NS)]; and medication type [stimulant(S), non-stimulant(NS)]. Adherence, as assessed by medication possession ratio (MPR) using a fixed interval denominator, was measured both continuously and dichotomously (80%). T-tests, ANOVAs and chi-square were employed to determine differences between groups. **RESULTS:** Overall mean adherence for EY (80.6%) was significantly more adherent than S, respectively: EY/IR 35.0 ± 30.9 vs. 49.9 ± 30.2 (p < .0001) and SY/IR 35.0 ± 30.9 vs. 49.9 ± 30.2 (p < .0001). When dichotomized, results were similar (p < .0001). **CONCLUSIONS:** For ADHD medication adherence, SY was not significantly different between NS and S (53.5 ± 30.9) and ER (52.1 ± 30.2); however, LA (47.6 ± 30.9) and IR (37.2 ± 27.1) were significantly lower (p < 0.0001). Regarding SY, adherence was not significantly different for all (EY 36.7 ± 26.0), LA (36.5 ± 23.8) and NS (62.9 ± 27.0), while IR (52.8 ± 24.7) was significantly lower (p < 0.0001). When adherence was dichotomized, EY medication class adherence differed significantly (p < 0.0001): NS(25.8%), ER(24.1%), LA(21.2%), IR(9.8%). Similarly, SY differed significantly (p < 0.0001): NS(30.8%), ER(30.0%), LA(25.6%), IR(16.2%). NS had significantly higher mean adherence than S, respectively: EY/NS 53.5 ± 30.9 vs. 49.9 ± 30.2 (p < .0001) and SY/NS 53.5 ± 30.9 vs. 49.9 ± 30.2 (p < .0001). When dichotomized, results were similar (p < .0001): EY/NS 53.5% vs. 21.5% and SY/NS 30.8% vs. 27.9%. **CONCLUSIONS:** Subjects adhered better during SY compared to EY. In this medical practice revenue was derived depending on timeframe used. For analyses comparing NS and S, NS had significantly higher adherence, however for SY mean adherence, the difference may not be statistically significant. Due to unique patient medication-taking behaviors, ADHD medication adherence differs depending on the timeframe used.

**PMH61**

**ADHERENCE AND PERSEVERANCE WITH MEDICATION THERAPY IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER: A REAL-WORLD COMPARISON OF BRANDED ANTIDEPRESSANTS AND GENERIC SSRIS**

Chen Y, Liu X, Faries D, Watson PR

*Eli Lilly and Company, Indianapolis, IN, USA*

**OBJECTIVES:** Adherence and persistence with prescribed medication is important in the treatment of major depressive disorder (MDD). This study compared adherence and persistence of 3 branded antidepressants ( duloxetine, venlafaxineXR, and escitalopram) and generic selective serotonin reuptake inhibitors (SSRIs) in the real-world treatment of MDD. **METHODS:** A total of 44,026 MDD patients (18 to 64 years)