Sixteen percent (n = 3,025) of the caregivers had a child with an ASD diagnosis. As compared to caregivers of children with MHC only, caregivers of children with ASD were significantly more likely to report issues with availability (AOR = 2.16, 95% CI = 1.66-2.82), information (AOR = 1.89, 95% CI = 1.46-2.45), eligibility (AOR = 1.80, 95% CI = 1.38-2.37), cost (AOR = 1.67, 95% CI = 1.31-2.14), and appointments (AOR = 1.35, 95% CI = 1.09-1.68). When compared to the DD & MHC group, the ASD group was found to be significantly more likely to report issues with availability, obtaining information, and cost of services. **CONCLUSIONS:** ASD caregivers reported greater difficulty with all five service difficulty measures as compared to caregivers of children with MHC only. However, ASD group reported greater problems only in availability, obtaining information, and cost of services, when compared to DD & MHC group.

PMH69

GEOGRAPHIC VARIATION IN DIAGNOSIS, MEDICATION USE AND ASSOCIATED COSTS OF ATTENTION DEFICIT DISORDER (ADD)

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OBJECTIVES: To use administrative claims to examine geographic variation trends in ADD diagnostic prevalence, medication use and associated medical and pharmacy costs. **METHODS:** A retrospective design and descriptive analysis of continuously enrolled (medical and pharmacy benefits) commercial members aged four to 40 between January 1, 2008 and December 31, 2010 from MarketScan®Commercial Claims and Encounters dataset. Key metrics included percent of continuously enrolled patients with ADD diagnosis, patients with ADD medication use and associated pharmacy and medical costs per enrollee. ADD diagnosis was defined as having a medical diagnostic code (ICD9) of 3140 at any time during a given year. Medication use was defined as having at least one claim for amphetamines, attention-deficit/hyperactivity-disorder agents or stimulants. **RESULTS:** The datasets comprised of 11.8, 12 and 13 million enrollees in 2008, 2009 and 2010, respectively. Results indicate that although the diagnostic prevalence, medication use and associated medical and pharmacy costs were the highest in the South throughout the study period, Northeast region had the highest growth rate. Increasing by 34.1% from 1.9% to 2.5% for patients diagnosed and by 43.0% from 2.4% to 3.5% for patients treated with ADD medications. Growing at rate of 59.0% from $34.21 in 2008 to $54.39 in 2010, Northeast outpaced the other regions by more than 24.1% on ADD related medical and pharmacy spend per enrollee. **CONCLUSIONS:** Northeast is the fastest growing region for ADD diagnosis, medication use and related spend. Further research is warranted to examine the factors underlying this trend. The findings suggest consideration of utilization management programs and cost containment strategies to ensure appropriate access, patient safety and cost-effective use of ADD medications.

PMH70

HOSPITALIZATIONS AMONG BIPOLAR DISORDER PATIENTS BEFORE AND AFTER INITIATING LURASIDONE IN A COMMERCIALLY INSURED POPULATION

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OBJECTIVES: Bipolar disorder is a costly severe mental illness with high rates of hospitalizations compared to several other behavioral disorders. This study aims to compare all-cause and mental health-related hospitalizations among adult patients with bipolar disorder 6-months before and after initiating lurasidone, an atypical antipsychotic agent. **METHODS:** A retrospective analysis of health insurance claims from the Truven Health MarketScan Commercial Database was conducted. The study population included individuals ages 18–64, who initiated lurasidone between October 1, 2010 to September 30, 2011 (initiation date=index), had ≥ 1 inpatient or ≥ 2 outpatient medical claims with an ICD-9-CM diagnosis code for bipolar disorder and had continuous health benefit coverage during the study period. All-cause hospitalizations and mental health-related hospitalizations associated with a primary diagnosis code for a mental health disorder were evaluated for the 6-months pre- and post-index date. Proportions of patients with hospitalizations and mean number of hospitalizations were compared using chi-square and paired t-test, respectively. **RESULTS:** The study population (N=234) was predominantly female (68.8%) with a mean age of 41.6 years. Common pre-index comorbidities included depression (61.5%), anxiety (24.4%), hypertension (20.5%) and diabetes (20.1%). The proportion of patients with all-cause hospitalizations decreased from 33.3% in the pre-period to 21.4% in the post-period (p = 0.0005). Similarly, the proportion of patients with mental health-related hospitalizations decreased from 27.8% to 17.1% between the pre- and post-index periods (p=0.0006). The mean numbers of hospitalizations in the pre- and post-index periods were 0.6 and 0.3 for all-cause (p=0.0175) and 0.5 and 0.2 for mental health-related conditions (p=0.0310). **CONCLUSIONS:** In this analysis of patients with bipolar disorder, significantly smaller proportions of patients were hospitalized for all-cause and mental health-related diagnoses in the 6 months after initiating lurasidone compared to the 6 months before initiation. The mean numbers of hospitalizations were also significantly lower in the 6-months after initiation on lurasidone.

PMH71

THE MEDICAL COSTS AND HEALTH CARE UTILIZATION FOR DEPRESSION TREATMENT BY KOREAN HEALTH INSURANCE REVIEW & ASSESSMENT SERVICE DATA

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OBJECTIVES: To investigate the use of health care utilizations and direct medical costs for patients with depression. **METHODS:** This study combined major clinical information of 1183 depressed patients who registered for the prospective depressed patients cohort study (CRESCEND: the Clinical Research Center for Depression Study) from January 2006 to August 2008 and the health insurance claims filed with the Health Insurance Review & Assessment Service, HIRA. Of these patients, 834 who had HAMD-17 scores > 14 at screen visit and more than one time claim for reimbursement of antidepressants at HIRA after their cohort enrollment were subject to this analysis on their use of health care institutions, in-patient and out-patient, as well as their medical costs. **RESULTS:** The hospital visit by out-patients with depression was 17.3 times a year with the average hospitalization rate at 20.9%. The times of hospital visits tended to increase in cases of elderly patients, patients with comorbidities, patients treated with combination therapy, patients prescribed with NADs and patients treated with multiple drugs in combination. The hospitalization rate tended to increase in cases of patients with comorbidities, severer patients in HAMD scores, patients treated with combination therapy, Patients prescribed with NADs and patients treated with multiple drugs in combination. In direct medical costs, drug expenses represented 60.6%. The costs tended to increase in elderly patients, patients with comorbidities, severer patients in HAMD scores, combination therapy patients, patients prescribed with NADs than SSRI and patients prescribed with multiple drugs. Drug expenses increased with the rise in out-patient visits, and medical costs at 12 months increased in out-patients with less hospital visits. **CONCLUSIONS:** SSRIs are first-line treatment to save direct medical costs. HAMD is regarded as the most relevant measure not only for the severity of depression but also for the estimation of the use of health care institutions and medical costs.

PMH72

IMPACT OF TREATMENT PERSISTENCE ON HEALTH CARE CHARGES AMONG OPIOID-DEPENDENT PATIENTS TREATED WITH BUPRENORPHINE/NALOXONE: 2006-2012 INSURANCE CLAIMS RETROSPECTIVE ANALYSIS IN THE UNITED STATES

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OBJECTIVES: Buprenorphine/naloxone combination (BUP/NAL) is recommended in the treatment of opioid dependence. Clinical guidelines do not specify the minimum duration of treatment required to achieve long-term remission. This study evaluated the impact of treatment persistence on health care charges. **METHODS:** Study was conducted on a US insurance claims database. It included patients initiating treatment with BUP/NAL claim between November 2006 and December 2011, not previously treated with buprenorphine, with at least one repeat claim after 30 days. Discontinuation was defined as absence of BUP/NAL claim for 90 days. Health care charges over 12 months were compared between persistent and non-persistent patients, adjusting on baseline characteristics (demographics, comorbidities, treatment, and resource utilization before index date). **RESULTS:** Of 19,008 patients with an incident claim of BUP/NAL, 35.7% appeared to be short-term users and were excluded. Among the remaining 12,231 patients, the average duration of follow-up was 12.9 months, and 2846 were followed for at least two years. The probability of continuing treatment over 24 months was 40.9%. Patients under 25 years old, with a diagnosis of hepatitis or soft tissue infection were more likely to discontinue. Patients treated for at least 12 months had lower mean total charges compared to non-persistent patients ($22,912 vs. $31,687; p<0.0001), adjusting on baseline characteristics. Among non-persistent patients, total charges per quarter reached a maximum during the first trimester following discontinuation (+91% compared to period from 6 to 4 months before discontinuation, p<0.0001), and were also significantly higher in the second trimester after discontinuation (+52%, p=0.0003), compared with before discontinuation. Main drivers of excess charges were hospitalization and outpatient visits. Majority of long-term users of BUP/NAL discontinued treatment before 24 months. **CONCLUSIONS:** Non-persistence was associated with higher charges and evidence was consistent with a causal relationship between discontinuation and increased charges. Treatment persistence improvement may lead to cost savings.

PMH73

ASSESSING THE IMPACT OF A MEDICAID PRIOR AUTHORIZATION (PA) POLICY FOR DULOXETINE ON ANTIPSYCHOTIC USE AMONG PATIENTS WITH DEPRESSION

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OBJECTIVES: To evaluate if the Iowa Medicaid duloxetine depression Prior Authorization (PA) policy, implemented may 24, 2010, inadvertently increased atypical antipsychotic use in depressed patients. We compare initiations of duloxetine and other relevant medications for depression in Iowa before and after PA implementation and in Missouri, which had no duloxetine PA. **METHODS:** Using de-identified Iowa and Missouri Medicaid claims data (1999-2010), two cohorts were selected from each state: 2010 policy change cohort (index date: 5/24/2010) and 2009 control cohort (index date: 5/24/2009). Patients had to have ≥1 inpatient or 2 other medical claims with a depression diagnosis pre-index; ≥1 antidepressant or antipsychotic claim during the

six months pre-index ("baseline period"); and age<65 for six months post-index ("study period"). Baseline characteristics and study period prescription drug initiations (requiring six-month washout) by PA status (Iowa PA policy begun 5/24/2010) were compared between the two cohorts in each state. Logistic models were used to calculate risk-adjusted study period drug initiation rates, controlling for baseline characteristics. **RESULTS:** Iowa patients had significantly (p<.05) higher rates of anxiety and lower baseline health care costs 2010 versus 2009 (n=9,429 vs. n=8,443). Missouri patients were significantly younger, had higher rates of mental disorders, and higher baseline health care costs in 2010 versus 2009 (n=19,541 vs. n=13,083). In Iowa, risk-adjusted initiations of antidepressants (2009-2010) without PA increased significantly (17.8% vs. 19.4%); initiations decreased significantly for: duloxetine (2.0% vs.1.6%), other antidepressants with PA (4.2% vs. 1.2%), and atypical antipsychotics without PA (7.5% vs. 6.7%). In Missouri, initiations increased significantly (2009-2010) for antidepressants without PA (21.4% vs. 24.2%) and atypical antipsychotics without PA (10.0% vs. 10.8%); the duloxetine initiation rate was not significantly different (2.9% vs. 2.7%). **CONCLUSIONS:** The Iowa Medicaid PA for duloxetine reduced the rate of duloxetine initiations, and did not increase atypical antipsychotic use.

PMH74

IDENTIFYING SCHIZOPHRENIA PATIENTS AT HIGH-RISK FOR ANTIPSYCHOTIC NONADHERENCE USING THE ASSESSMENT FOR QUALITY IMPROVEMENT AND RISK EVALUATION TOOL

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OBJECTIVES: Compare antipsychotic adherence and costs among patients with schizophrenia identified as "high-risk" for future antipsychotic nonadherence by the Assessment for Quality Improvement and Risk Evaluation (QI-RE) tool to controls not identified as high-risk. QI-RE is a software tool developed by Janssen Scientific Affairs, LLC and Boston Health Economics, Inc. that applies adapted published regression equations to pharmacy and medical claims data to assess schizophrenic patients' risk for future antipsychotic nonadherence. **METHODS:** Retrospective analysis using pharmacy, medical, and eligibility data from Humana Medicare Advantage patients diagnosed with schizophrenia (ICD-9-CM 295.xx) having continuous enrollment from 1/1/2010-12/31/2011. QI-RE and data from 2010 were used to identify patients in the highest-risk quartile for future antipsychotic nonadherence (high-risk cohort). The remaining patients in the study population (lower-risk) acted as the control cohort. Antipsychotic adherence (proportion of days covered [PDC]), persistence (14 day gap allowance) and health care costs during 2011 were compared across both cohorts. Student's t-tests and chi-square tests were used for continuous and categorical variables, respectively. **RESULTS:** Relative to the control cohort (n=3,867), the high-risk cohort (n=1,139) was younger (mean age 54.6 vs. 55.4 years, p<0.041) and had more African Americans (26.0% vs. 17.8%, p<0.001). During follow-up, mean PDC was 0.48 versus 0.81 (p<0.001); persistence was 119.3 versus 144.3 days (p<0.001); antipsychotic pharmacy costs were $1,950 versus $3,933 (p<0.001); and, psychiatric-related medical costs were $4,938 versus $4,452 (p=0.192) for high-risk and control cohorts, respectively. **CONCLUSIONS:** Patients identified as high-risk for antipsychotic nonadherence by QI-RE had poorer adherence, shorter persistency, and lower antipsychotic pharmacy costs during the follow-up period relative to controls. These results support the potential utility of QI-RE for quality improvement initiatives related to antipsychotic adherence in patients with schizophrenia.

PMH75

IDENTIFYING SCHIZOPHRENIA PATIENTS AT HIGH-RISK FOR HOSPITALIZATION USING THE ASSESSMENT FOR QUALITY IMPROVEMENT AND RISK EVALUATION TOOL

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OBJECTIVES: Examine hospitalization rates and costs for cohorts of patients with schizophrenia identified as 'high-risk' by the Assessment for Quality Improvement and Risk Evaluation (QI-RE) tool compared to cohorts not designated as 'high-risk'. QI-RE is a software tool developed by Janssen Scientific Affairs, LLC and Boston Health Economics, Inc. that applies adapted published regression equations to pharmacy and medical claims to assess patients' risk for future hospitalizations. **METHODS:** Retrospective analysis using pharmacy, medical, and eligibility claims data from Humana Medicare Advantage patients diagnosed with schizophrenia (ICD-9-CM 295.xx) having continuous enrollment from 1/1/2010-12/31/2011. QI-RE and data from 2010 were used to identify cohorts of patients in the highest-risk quartiles for future All-Cause (ACH) and Psychiatric-Related (PRH) hospitalization. For each hospitalization outcome, separate control cohorts were constructed with patients from the three lower-risk quartiles. Hospitalizations and costs during 1-year follow-up (2011) were compared between high-risk and control cohorts. **RESULTS:** High-risk cohorts had a higher proportion of females (58.0% vs. 48.6% in ACH, p<.0001; 57.6% vs. 48.7% in PRH, p<.0001) and Caucasians (77.6% vs. 72.4% in ACH, p=.0042; 77.5% vs. 72.4% in PRH, p=.0048) relative to respective controls. During follow-up, the proportion with ≥1 hospitalization (56.5% vs. 26.0% in ACH, p<.0001; 49.7% vs. 21.7% in PRH, p<.0001), mean number of hospitalizations (2.7 vs. 1.0 in ACH, p<.0001; 1.7 vs. 0.6 in PRH, p<.0001), and mean total health care costs ($23,203 vs. $12,841 in ACH, p<.0001; $23,213 vs. $12,835 in PRH, p<.0001) were significantly higher for each QI-RE cohort relative to respective controls. **CONCLUSIONS:** Patients identified as high-risk by QI-RE experienced higher rates of hospitalizations and higher health care costs in the follow-up period relative to controls. These results support the potential utility of this population health tool for quality improvement and cost avoidance efforts in managing patients with schizophrenia.

PMH76

CHARACTERISTICS OF ADULT MEDICAID BENEFICIARIES WITH SCHIZOPHRENIA TREATED WITH PALIPERIDONE PALMITATE AND PREDICTORS OF TREATMENT CONTINUITY

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OBJECTIVES: To describe characteristics of adult Medicaid beneficiaries with schizophrenia initiated with Paliperidone Palmitate (PP) and assess the relationships between such characteristics and treatment continuity. **METHODS:** Adult Medicaid enrollees with schizophrenia, 30+ days of treatment with PP, and 6 months continuous enrollment prior to the first PP claim in 2009-2011 were identified in the *MarketScan® Medicaid Multi-State Database*. Exclusion criteria included dual eligible coverage, mental health carve-out, or a claim for Risperdal Consta at index. Characteristics were compared between three groups created based on days continuous with PP (Group A: ≥151, B: 91-150, C: 31-90). The first gap of 14+ days between the days covered by one claim and the date of the next claim was defined as the end of continuous therapy. Cox proportional hazards regression identified factors associated with PP treatment continuity over 6 months. **RESULTS:** A total of 725 patients comprised the sample, of which 339 (47%) were continuous with PP for ≥151 days. Overall, the average age for the sample was 39 years, 64% were male, 41% white. Pre-index characteristics for groups A vs C were significantly different with respect to the number of unique 3-digit ICD-9 diagnosis codes (mean/SD: 8.8/7.3 vs 10.8/8.9; p=0.004), number of unique psychiatric diagnostic categories (2.8/2.0 vs 3.5/2.2; p<0.001), number of unique antipsychotic agents (1.6/1.0 vs 1.8/1.1; p=0.028), diagnosed bipolar disorder (17% vs 27%; p=0.003), diagnosed depression (20% vs 30%; p=0.006), diagnosed alcohol abuse (9% vs 15%; p=0.029) and percent of patients with any psychiatric hospitalization (30% vs 42%; p=0.002). Cox proportional hazards regression models (saturated & stepwise) did not identify any factors significantly associated with treatment continuity. **CONCLUSIONS:** Relative to patients continuous with PP therapy for longer than 151 days, patients with 31-90 days of continuous therapy had a more complex profile of mental health comorbidites and pre-index resource utilization.

RESEARCH POSTER PRESENTATIONS – SESSION II
DISEASE-SPECIFIC STUDIES

INDIVIDUAL'S HEALTH – Clinical Outcomes Studies

PIH1

DRUG INTERACTIONS IN ELDERLY POPULATION IN PRIMARY HEALTH CARE

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OBJECTIVES: Was to determine the percentage of drug interactions' risk in elderly population receiving three or more drugs at the same time, also and degree of risk of severe, moderate and mild interactions. **METHODS:** This study was retrospectively-observational. The study included 50 patients of both genders, aged at least 65 years, who were treated in the first half 2012th in the Health Center Novi Sad which prescribed three or more drugs. Three sources of information about possible drug interactions were used: www.drugs.com, British National Formulary (BNF) and SPC of drug. **RESULTS:** The study included a total of 50 patients with mean age of 73.62 years. According to the number of possible drug interactions, most of them were from BNF (n = 204 or 45.43% compared to the number of possible drug combinations), then www.drugs.com (n = 203 or 45.21%) and from SPC source were significantly less (n = 150 or 33.40%). In relation to the degree of relevancy of drug interactions, according to the source www.drugs.com, the incidence of serious interactions was 3%, 29% moderate and 13% mild. Out of 50 patients analyzed, only in 9 patients (18%) were found complete compatibility in the number of interactions in all three data sources. A significantly higher number of interactions were at the level of pharmacodynamic (167 or 77.68%). **CONCLUSIONS:** With the increasing number of taken drugs at the same time, increases the total number of interactions with a correlation coefficient of 0.71. Publications and Internet could provide useful information of drug interactions, but we could not say what else is important in a particular patient. This research was supported by Provincial Secretariat for Science and Technological Development, Autonomous Province of Vojvodina project No 114-451-2458/2011 and by Ministry of Science and Technological Development, Republic of Serbia project No 41012.

PIH2

DRUG INTERACTION LEAD MEDICATION ERRORS - EVIDENCE FROM AN INDIAN TERTIARY CARE SETTING

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BACKGROUND: Medication errors is a major issue that every health care setting keeps addressing because it has a direct bearing on the safety of the patients. The results across the globe have demonstrated that the drug interactions continue to be a leading cause of errors. **OBJECTIVES:** The stduy was carried out with the obejctive of detecting the medication errors in the inpatients and profile them. **METHODS:** This study was carried out in an inpatient setting of a private tertiary care hospital. Medication errors were identified from patients' files, using Micromedex on PDA. 17 errors were fixed as the becnmark and assessments were done using this. **RESULTS:** The results are based on data