long-acting injectable risperidone. **METHODS:** Retrospective analysis (Jan 2006-Dec 2008) of Texas Medicaid data was conducted for patients >= 18 years old with schizophrenia (ICD-9: 295.xx). Patients who initiated either oral (oral cohort) or injectable risperidone (injectable cohort), had no prior risperidone for at least 12 months, and had at least one additional prescription following initiation were included. Medical care services and costs were compared within and between cohorts for 12 months pre- and post-initiation using paired-, independent t-tests and McNemar tests. **RESULTS:** 1544 patients were included (oral cohort: n=1261, mean age = 38yrs, 54% male; injectable cohort: n=283, mean age=39yrs, 61% male). The injectable cohort (4.6, SD=2.9) had a significantly higher mean Chronic Disease Score (CDS) compared to the oral cohort (3.2, SD=2.9) ($p<0.05$). The percent of patients with at least one psychiatric-related hospitalization significantly decreased by 10.6% in the injectable cohort (25.0% to 14.5%; $p<0.05$) compared to 6.1% in the oral cohort (18.7% to 12.6%; $p<0.05$), and average hospital length of stay (LOS) was significantly reduced by 2.5 days (4.4 to 1.9 days) versus 0.9 days (2.6 to 1.7 days), respectively ($p<0.05$). Direct mental health-related medical costs significantly decreased by $1395 ($4968 to $3573; $p<0.05$) in the injectable cohort compared to $51 in the oral cohort ($1912 to $1861; NS) ($p<0.05$). **CONCLUSIONS:** For patients initiated on long-acting injectable risperidone, clinical utilization and economic outcomes improved one year post-initiation, as the number hospitalizations, LOS, and total mental health-related medical costs decreased. While injectable cohort patients may be a sicker population (as evidenced by higher CDS and higher levels of baseline and follow-up utilization and costs), their level of improvement was higher than that of the oral cohort.

PMH36
FACTORS ASSOCIATED WITH HEALTHCARE COSTS IN A POPULATION OF COMMERCIALLY INSURED CHILDREN AND ADOLESCENTS WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER AND PSYCHIATRIC COMORBIDITIES
Slabaugh SL[1], Durkin MB[1], Montejano LB[2]
[1]Ortho-McNeil Janssen Scientific Affairs, LLC, Titusville, NJ, USA, [2]Thomson Reuters, Cambridge, MA, USA
OBJECTIVES: Previous evidence has demonstrated that the presence of psychiatric comorbidities in patients with ADHD is associated with increased total healthcare costs. This study examined factors associated with healthcare costs in a commercially-insured population with ADHD and ≥1 psychiatric comorbidity. **METHODS:** Using the Market Scan database (2005–2007), we examined claims for 4,613 commercially-insured patients ages 6 to 17 years with a diagnosis of ADHD (ICD-9: 314.xx) and ≥1 of the following psychiatric comorbidities: oppositional defiant disorder, conduct disorder, learning disability, anxiety disorder, and depression. Percent of days covered (PDC) by ≥1 ADHD medication was calculated for the 12-month period following index date. The population was divided into two groups: consistent users (PDC ≥70%) or inconsistent users (PDC <70%). Chi-square tests for categorical variables and t-test or ANOVA for continuous variables were employed to identify differences between the groups (significant when $P<0.05$). Generalized linear models with gamma-distributed error and log-link were used to evaluate the association between total healthcare costs and covariates that included patient demographics, each comorbidity, and treatment-consistency. **RESULTS:** The study population was predominantly male (64.8%), had a mean age of 12.6 years, and was predominantly urban (87.3%). In specifying the regression model, the following covariates were significantly associated with the cost outcome: treatment-consistency, age, gender, insurance type, index year, and each of the tested psychiatric comorbidities. Relative to consistent users, inconsistent users had lower modeled total healthcare costs ($P<0.0001$). Female sex, increased age, and each of the psychiatric comorbidities were associated with increased total healthcare cost relative to their counterparts without those attributes ($P=0.0087$ for female sex; $P<0.0001$ for all other covariates). **CONCLUSIONS:** In the studied population of children and adolescents with ADHD and concurrent mental health diagnoses, after controlling for significant covariates, inconsistent use of ADHD medications was associated with lower total healthcare costs than consistent use.

PMH37
THE COST-EFFECTIVENESS OF GUANFACINE EXTENDED RELEASE (GXR) VERSUS ATOMOXETINE (ATX) FOR THE TREATMENT OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER (ADHD) IN CHILDREN AND ADOLESCENTS
Erder M[1], Chen K[2], Wu EQ[2], Hodgkins P[1], Sikirica V[1]
[1]Shire Pharmaceuticals, Wayne, PA, USA, [2]Analysis Group, Inc., Boston, MA, USA
OBJECTIVES: To evaluate the cost-effectiveness of GXR vs. ATX for the treatment of ADHD in children and adolescents from a US third-party payer perspective. **METHODS:** An economic model was developed to estimate the cost effectiveness of GXR vs. ATX during a 4-week drug titration period and a 48-week maintenance period (one-year time horizon). Effectiveness was measured by the number of responders (defined as patients with ≥25% reduction in ADHD-Rating Scale-IV total observed score compared to baseline), and estimated quality-adjusted life years (QALYs). The model assumed all patients received treatment until the end of titration and only responders continued treatment afterwards. A uniform constant discontinuation rate, based on the long-term trials of GXR and ATX, was applied. Response rates were obtained from a matching-adjusted indirect comparison of efficacy between GXR and ATX based on the Phase III trials. Published utilities corresponding to response and non-response health states were applied. Disutility due to adverse events was applied to the entire titration period. Costs included published drug wholesale acquisition costs (WAC) in 2010 US dollars. Incremental cost per QALY and incremental cost per responder were estimated for GXR compared to ATX. Various one-way sensitivity analyses (SA) were conducted to examine the robustness of the model. **RESULTS:** Despite the lower WAC unit price, GXR

had an incremental cost of $171 over ATX because more GXR patients achieved response and continued treatment. In the base case, the cost/QALY was $24,688 and the incremental cost per responder was $1,979. Most scenarios in the one-way SA resulted in a cost/QALY below $50,000, with the exceptions of increasing GXR or decreasing ATX costs by 25%. **CONCLUSIONS:** Compared to ATX, GXR is cost-effective, at the cost that is lower than the socially acceptable willingness-to-pay threshold of $50,000/QALY, for the treatment of ADHD in children and adolescents.

PMH38
ECONOMIC IMPLICATIONS OF THE EFFECT OF LURASIDONE VERSUS OTHER SELECTED ATYPICAL ANTIPSYCHOTICS ON CARDIOMETABOLIC PARAMETERS IN PATIENTS WITH SCHIZOPHRENIA
Guo S[1], Hernandez L[1], Green J[1], Sarocco P[2]
[1]United BioSource Corporation, Lexington, MA, USA, [2]Sunovion Pharmaceuticals Inc., Marlborough, MA, USA
OBJECTIVES: A cost-consequence analysis was performed to assess the economic implications of changes in cardiometabolic parameters after six-week treatment with lurasidone vs. other selected atypical antipsychotics in patients with schizophrenia. **METHODS:** A model using discrete event simulation was developed to assess the economic impact from a US payer perspective over a two-year timeframe. It uses baseline patient-level profiles from lurasidone trials to simulate changes in cardiometabolic parameters (e.g., LDL, HDL, triglycerides, total cholesterol, fasting glucose (FG), and BMI) associated with each treatment over six-weeks using data from lurasidone clinical trials for lurasidone and olanzapine and from the literature for risperidone, quetiapine IR and XR. Based on the simulations, the model projects the number of cases requiring pharmacological treatment for hyperlipidemia (i.e., LDL≥130 mg/dL), hyperglycemia (i.e., FG 100-126 mg/DL), as well as diabetes and cardiovascular events (CVD) using risk equations from the Framingham Heart Study. Costs (in 2010 values) are accrued according to each patient's specific experience with treatments and events over the course of the simulation. **RESULTS:** Per 1,000 treated patients, lurasidone is predicted to result in 47, 14, 16, and 2 fewer incident diabetes; 74, 56, 56, and 49 fewer hyperlipidemia cases; and 191, 82, 82, and 16 fewer hyperglycemia cases than olanzapine, risperidone, quetiapine IR, and quetiapine XR, respectively. CVD events are also fewer with lurasidone, but the differences among treatments are minimal. These clinical benefits would result in net savings of $857, $414, $431, and $147 per patient, respectively, and $5,803, $8,657, $9,753, and $7,647 per patient, respectively, if including the costs of antipsychotic treatment. **CONCLUSIONS:** Based on the results of these economic analyses, lurasidone represents a potentially cost-saving alternative for the treatment of patients with schizophrenia.

PMH39
COST-EFFECTIVENESS OF ANTIDEPRESSANT THERAPIES IN KOREA
Shin S, Jung SY, Song H, Park J, Ahn J
National Evidence-based Healthcare Collaborating Agency (NECA), Seoul, South Korea
OBJECTIVES: To assess cost effectiveness (CE) of antidepressant (AD) therapy, antidepressants were grouped as tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), and new antidepressants (NADs; SNRIs and others) and a CE model, reflecting relationship between adherence and relapse among patients with depression in Korea, was developed. **METHODS:** Effectiveness and cost parameters were estimated using the Korean Health Insurance Review & Assessment Service (HIRA) claim database (2006-2008). Subjects were selected by age of 18-84, without a prior history of medical visit due to depression within 6-month pre-index period and with at least 3 psychiatric visits within 3-month post-index period. A decision-tree model comparing the three ADs groups captured rate of patient adherence, rate and frequency of relapse with/without requiring hospitalization and healthcare resource utilization associated costs. Adherence was defined as over 75% of Medication Possession Ratio (MPR) in 3-month pre-index period. Costs were estimated with healthcare system perspective excluding unobservable out-of-pocket payment (in 2010 KRW). Primary outcome was proportion of patients with relapse by adherence or nonadherence. **RESULTS:** The adherence rate was 16.17% in TCAs, 32.57% in SSRIs, and 34.18% in NADs. The proportions of patients experiencing a relapse requiring hospitalization 3.48%, 1.79%, 2.93%, for TCAs, SSRIs, NADs while the proportion of patients with a relapse not requiring hospitalization were 33.26%, 13.23%, 12.59%, respectively. The expected cost of TCAs was 341,187KRW, SSRIs 415,282KRW, NADs 452,586KRW, and expected probabilities to prevent relapse was 69.9% in TCAs, 76.6% in SSRIs, 74.8% in NADs. The result of cost-effectiveness analysis was SSRIs is the most cost-effectiveness AD group (ICER: 1,102,548KRW per relapse prevented). These findings were supported by sensitivity analysis **CONCLUSIONS:** The use of SSRIs for treatment with depression in Korean healthcare setting is predicted in this model to results in better clinical outcomes and lower total healthcare costs over than its comparators.

PMH40
COST-EFFECTIVENESS AND BUDGET IMPACT OF ADJUNCT QUETIAPINE FUMARATE EXTENDED-RELEASE IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER WITH AN INADEQUATE RESPONSE TO PREVIOUS THERAPY
Svedsater H[1], Locklear J[2], Johal S[3], Stillman IO[4]
[1]AstraZeneca, Mölndal, Sweden, [2]AstraZeneca Pharmaceuticals LP, Wilmington, DE, USA, [3]RTI Health Solutions, Sheffield, UK, [4]United BioSource Corporation, Lexington, MA, USA
OBJECTIVES: Major depressive disorder (MDD) is estimated to affect 3.4% of the US population. The goal of MDD treatment is remission. We determined the cost-effectiveness (CE) of adjunct quetiapine fumarate extended-release (QTP XR) versus adjunct aripiprazole ([ARP] 15 mg/d), and budget impact of adjunct QTP XR in MDD patients with an inadequate response to previous antidepressant therapy. **METHODS:** The CE model used a Markov process to model outcomes in 2nd- and