FACTORS ASSOCIATED WITH HEALTHCARE COSTS IN A POPULATION OF COMMERCIALY INSURED CHILDREN AND ADOLESCENTS WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER AND PSYCHIATRIC COMORBIDITIES

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. Perceived health was measured by SF-12. Covariates included were patient age, sex, race, insurance type, and urbanicity. Differences in healthcare costs were 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 prevalence was predominately male (64.4%), 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 psychiatric comorbidities. Relative to consistent users, inconsistent users had lower median 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, age and each of the current mental health diagnoses, after controlling for significant covariates, inconsistent use of ADHD medications was associated with lower total healthcare costs than consistent use.

THE COST-EFFECTIVENESS OF GUANFACINE EXTENDED RELEASE (GXR) VERSUS ATOMoxetine (ATX) FOR THE TREATMENT OF ATTENTION-DEFICIT/ HYPERACTIVITY DISORDER (ADHD) IN CHILDREN AND ADOLESCENTS

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 (Adolescents and Children Health Outcomes Rating Scale, ADHD-Rating Scale), and 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 starting dose of 1 mg/d for both GXR and ATX was assumed. Response rates were obtained from a matching-adjusted indirect comparison of efficacy between GXR and ATX based on the pooled efficacy data. Utilities were calculated for the following states: no NADs while the proportion of patients with a relapse not requiring hospitalization was 3.48%, 1.79%, 2.93%, for TCAs, SSRIs, and SNRIs, respectively. VCD events are also fewer with lurasidone, but the differences among treatments are minimal. These clinical benefits would result in net savings of $857, $141, $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.

COST-EFFECTIVENESS AND BUDGET IMPACT OF ADJUNCT QUETIAPINE FUMARATE EXTENDED-RELEASE IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER IN THE UNITED STATES

OBJECTIVE: To assess the cost effectiveness of GXR vs. ATX for the treatment of ADHD in children and adolescents. METHODS: A cost-consequence analysis was performed to assess the economic impact of changes in antidepressant 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 time frame. It uses baseline patient-level profiles from lurasidone trials to simulate changes in antidepressant parameters (e.g., LDI, HLDL, 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 at least one cardiovascular event (CVD) using data from the Framingham Heart Study. Costs (in 2010 US dollars) 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 37, 12, 2 fewer deaths, 74, 56, 56 fewer CVD events, and 191, 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, $141, $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.