

PMH75
AUTISM-RELATED HOSPITALIZATIONS: ESTIMATES FROM 2006 HEALTH CARE COST AND UTILIZATION PROJECT KIDS' INPATIENT DATABASE

Khanna R, Madhavan SS

West Virginia University, Morgantown, WV, USA

OBJECTIVES: Over the past two decades, the prevalence of autism spectrum disorder (ASD) has increased significantly in the United States (US). This increase in prevalence has been accompanied by a corresponding increase in health care utilization and costs associated with the disorder. The purpose of this study is to describe hospitalization and associated costs among children with ASD in the US. **METHODS:** For the purpose of the study, the 2006 Healthcare Cost and Utilization Project (HCUP) Kids' Inpatient Database (KID) was used. The 2006 KID contains outcome data for ~3.1 million discharges from 3739 community, non-rehabilitation hospitals spread across 38 states. All hospitalizations where the primary diagnosis (ICD-9-CM) code was listed as 299.XX were categorized as autism-related. Descriptive analyses were performed and results were reported by demographic categories. Costs associated with hospitalizations were based on total charges. **RESULTS:** Of the 3,131,324 pediatric discharges listed in 2006 HCUP KID, 1,456 were autism-related. The total charge for these hospitalizations was \$56,936,591. The average charge per autism-related hospitalization was \$24,042. The average age of children with autism-related hospitalization was 12 years (± 4 years), and the average length of stay was 13 days. In terms of demographic distribution, a majority of the children were white (69%) and male (82.3%). Medicaid was listed as the primary payer for roughly half (49%) of the discharges, with private payer including HMO providing for 42.9%. For approximately 57% of the discharges, the DRG listed was for psychoses, with another 42% for organic disturbances and mental retardation. **CONCLUSIONS:** Autism-related hospitalizations result in significant economic impact on the society. Consistent with the prevalence patterns of autism, a majority of hospitalizations occurred among males. Further research is needed to understand the factors associated with hospitalizations among children with ASD.

PMH76**PREDICTORS OF HIGHER HEALTH CARE EXPENDITURES IN PATIENTS WITH ATTENTION-DEFICIT HYPERACTIVITY DISORDER**Christensen L¹, Sasane R², Hodgkins P², Harley C³¹3 Innovus, Ann Arbor, MI, USA, ²Shire Pharmaceuticals, Wayne, PA, USA, ³13 Innovus, Eden Prairie, MN, USA

OBJECTIVES: To identify risk factors associated with higher health care costs among US commercial health plan enrollees with attention-deficit hyperactivity disorder (ADHD). **METHODS:** This retrospective study used claims data from July 1, 2003-September 30, 2007 to examine total health care costs for subjects aged ≥ 6 , diagnosed with ADHD, on their first prescription fill (index) date for an FDA-approved ADHD medication. Total cost (health plan plus patient paid amounts) included medical, pharmacy, outpatient, office visits, emergency and other medical costs. Subjects had an ADHD diagnosis between January 1, 2004-September 30, 2006, and filled ≥ 1 prescription for an ADHD medication during the study period. Multivariate analysis was conducted for subjects with available race/ethnicity and household income data ($N = 38,061$). **RESULTS:** The highest household income group (\$100,000 or more) was associated with significantly higher health care cost compared with the lowest income group ($< \$00$) ($p = 0.004$). Follow-up costs were higher with increasing number of baseline medications ($p < 0.0001$), additional mental health diagnoses ($p < 0.0001$), and when the index prescriber was a neurologist, psychiatrist or internal medicine specialist, rather than a family physician (all $p < 0.05$). Greater medication compliance (MPR ≥ 0.8) was associated with higher total costs than lower compliance (MPR < 0.8) ($p < 0.0001$). Augmentation with a drug of another class (stimulant/nonstimulant) and use of a nonstimulant or extended release amphetamine (vs. long-acting methylphenidate) as index therapy were also associated with higher cost (all $p < 0.05$). Costs were not statistically different between males and females aged 6-12 but were higher for females and males aged 13-17 and ≥ 18 than females aged 6-12 (all $p < 0.0001$). Race/ethnicity was not significantly related to cost when controlling for demographic, baseline medical and treatment characteristics. **CONCLUSIONS:** The main predictors of higher health care costs for patients with ADHD were higher income, older age and factors suggesting more complicated disease or more comorbid conditions.

PMH77**IMPACT OF THE BRAZILIAN PUBLIC MENTAL HEALTH POLICY ON SCHIZOPHRENIA HOSPITALIZATION: A 10-YEAR ANALYSIS**

Araujo GT, Fonseca MCM

UNIFESP - Federal University of Sao Paulo, Sao Paulo, Sao Paulo, Brazil

OBJECTIVES: Since the end of the 20th century, the Brazilian Health Ministry has been working on an effective mental health policy in order to keep patients out of the hospital setting as much as possible. In the last 10 years, two important programs for the treatment of schizophrenia patients were established: In 2002 Psychosocial Attention Centers (CAPs) and in 2003 "Back to home" program, along with the adoption of new drugs. The purpose of this evaluation is to evaluate the impact of the Brazilian Public Mental Health Policy on schizophrenia hospitalization reduction. **METHODS:** A retrospective analysis was performed using DATASUS (Government Healthcare database) from Jan 1998 until Dec 2007 to investigate the number of hospitalizations and days of hospitalization associated with schizophrenia and the cost associated to these hospital stays. Costs are reported in Brazilian reais **RESULTS:** In ten years, the amount of hospitalizations due to schizophrenia reduced in 55% and the total costs associated to hospitalization reduced in 68%. The cost of one day hospitalization was

R\$21.12 in 1998 and R\$31, 78 in 2007. The average length of stay increased 28% and the average total cost of hospitalization increased 93% **CONCLUSIONS:** This analysis suggests that the mental health policy was effective in reducing schizophrenia hospitalization rates and total costs and that the patients that are hospitalized are probably those with more severe condition, requiring longer stay and more expensive health care resources.

PMH78**HOSPITALIZATION RATES AMONG INDIVIDUALS WITH BIPOLAR DISORDER INITIATING THERAPY WITH ARIPIPRAZOLE OR QUETIAPINE**Hassan M¹, Lage Mj²¹AstraZeneca, Wilmington, DE, USA, ²HealthMetrics Outcomes Research, LLC, Groton, CT, USA

OBJECTIVES: Changes in rates of hospitalization were compared for patients with bipolar disorder initiating treatment with aripiprazole (ARI) or quetiapine (QTP). **METHODS:** Claims data for patients diagnosed with bipolar disorder from a commercial managed care database (PharMetrics January 1, 2000-December 31, 2006) were examined ($N = 2573$). Patients were aged 18 to 64 years, initiated therapy with ARI or QTP, prescribed no other antipsychotic in the first month post-initiation, had no dementia or schizophrenia diagnoses, and were continuously insured from 12 months prior through 12 months post-initiation. Patient characteristics were compared between groups using descriptive statistics. Rates of hospitalization for any cause or related to mental health or bipolar disorder, from 12 months before to 12 months after treatment initiation, were compared between groups using McNemar's test. **RESULTS:** Approximately 75% of patients were initiated on QTP and 25% on ARI. During the pre-initiation period, treatment groups were not significantly different in terms of age, gender, or Charlson Comorbidity score, but the QTP group had a greater total number of ICD-9 coded medical diagnoses than patients in the ARI group (mean 13.11 [QTP] vs 11.06 [ARI]; $P < 0.0001$). Initiation with QTP, compared with ARI, was associated with a significantly longer time before discontinuation (mean 197.30 days [QTP] vs 175.84 days [ARI], $P = 0.0009$). When comparing rates of hospitalization due to any cause, the QTP group showed a significant reduction post-initiation versus pre-initiation, while the ARI group showed a significant increase post-initiation (-2.89% [QTP] vs 0.47% [ARI], $P < 0.0001$). The QTP group also showed reduced rates of mental health- and bipolar disorder-related hospitalizations, while the ARI group showed increased rates (-3.35% [QTP] vs 1.10% [ARI]; $P = 0.0004$; -0.57% [QTP] vs 3.79% [ARI], $P = 0.0128$). **CONCLUSIONS:** Decreased rates of hospitalization were observed among patients with bipolar disorder after initiation on QTP compared with ARI. Supported by funding from AstraZeneca Pharmaceuticals LP.

PMH79**IDENTIFICATION OF TREATMENT RESISTANT DEPRESSION IN CLAIMS DATA: A COMPARISON OF METHODS**Gibson TB¹, Jing Y², Bagalman JE³, Kim E³, Burton WN⁴, Carls GS⁵, Tran QV⁶, Pikalov A⁶, Goetzl RZ⁷¹Thomson Healthcare, Inc, Ann Arbor, MI, USA, ²Bristol-Myers Squibb, Plainsboro, NJ, USA,³Thomson Reuters, WASHINGTON, DC, USA, ⁴University of Illinois, Chicago, IL, USA,⁵Thomson Reuters, Ann Arbor, MI, USA, ⁶Otsuka America Pharmaceutical, Inc, Rockville, MD,USA, ⁷Emory University/Thomson Reuters, Washington, DC, USA

OBJECTIVES: Many patients with depression are not responsive to first-line treatment and undergo treatment switches and optimizations to discover a beneficial regimen ('treatment-resistant' depression [TRD]). In addition to the patient burden, TRD is associated with significant economic costs. Challenges in treating patients with TRD are further complicated by the lack of a recognized definition of TRD. Using administrative data, we compare three claims-based methods (developed by Corey-Lisle, Crown and Russell) and a clinically-derived measure (MGH scale) of finding patients with TRD. **METHODS:** A retrospective study of patients aged 18-64 years with at least one antidepressant claim and employer-based coverage via large US firms. Patients had at least 2 years of continuous medical and prescription coverage in the MarketScan Database for 2000-2006 ($n = 106,139$). TRD classification methods were replicated over a 24-month observation period. Kappa coefficients were used to assess agreement between dichotomous TRD measures. The relationship between continuous measures of TRD (based on the number of antidepressant switches and optimizations, and other metrics) and annual medical costs were also assessed. **RESULTS:** Over two thirds of patients (69.6%, $n = 73,872$) were classified in a similar manner across all four methods: 10.7% of patients ($n = 11,349$) were found to have TRD, and the majority of patients (58.9%, $n = 62,515$) did not have TRD. However, 30.4% of patients ($n = 32,252$) were classified differently depending on the method. Kappa coefficients between pairs of methods ranged from 0.85% to 0.42%. As TRD severity increased, cost increased in an almost linear fashion. **CONCLUSIONS:** While patients with complex TRD are relatively easy to identify in health care administrative data, those with less complex TRD represent an opportunity for earlier recognition and intervention and associated potential cost savings. Dichotomous definitions of TRD may not be adequate; a gradient from moderate to complex TRD may be more useful for providers and insurers.