EXPENDITURES IN CHILDREN WITH DEPRESSION

Prevalence of AD (12,374,189). The estimated national annual direct COI associated with AD among adult women was $8.47 prescriptions including refills obtained by adult women with AD. The estimation was based on a retrospective cross-sectional case-control design using 2006 MEPS. Females were identified, and the number of females who reported AD in 2006 was summed and multiplied by the number of prescriptions obtained by adult women with AD. The estimated national annual direct COI associated with AD among adult women was $26.52 billion. This was calculated by multiplying the per-person total incremental medical expenditure associated with AD among adult females ($2,143) by the prevalence of AD (12,374,189). CONCLUSIONS: Inpatient expenditures accounted for the largest proportion of DME followed by office-based and prescription expenditures. Adult women with AD have a significant societal burden.

ANTIDEPRESSANT PERSISTENCE AND ASSOCIATED HEALTH CARE EXPENDITURES IN CHILDREN WITH DEPRESSION

Karkare S1, Aparasu RR2, Chen H2, Rajan SS2. OBJECTIVES: To evaluate persistence to antidepressant medications in depressed children and adolescents and to evaluate health care expenditures across persistent patients and non-persistent patients. METHODS: Medical Expenditure Panel Survey (MEPS) data from the years 2002-2007 were used for the analysis. The study sample consisted of depressed children and adolescents taking an antidepressant. Multiple logistic regression analysis was conducted to examine factors associated with persistence, with controlling for various independent variables. Empirical results showed that in persistent patients, 3.45; 95%CI 1.2-10.1; p = 0.023), unsatisfactory communication (OR 4.21; 95%CI 1.2-15.1; p = 0.0012), increased utilization may be due to multiple approved indications. Very little price competition is observed between brands or between brand and generic venlafaxine.

PERSISTENCY OF BUPRENORPHINE/NALOXONE USING AN INSURANCE DATABASE IN THE UNITED STATES

Aziz V1, Aballea S2, Guelfucci F3, Clay E3, Baxter T4. OBJECTIVES: To evaluate psychometric morbidity and burnout among physicians and nurses of a general hospital in central Italy, examining the association with job-related factors. METHODS: Anonymous questionnaires were distributed to all 323 hospital physicians and 609 nurses of a non-profit health organisation in Rome, Italy. Standardised instruments were used to evaluate psychiatric morbidity (General Health Questionnaire), burnout (Maslach Burnout Inventory) and perceived job-related factors. Stepwise logistic regression was used to examine the association between job-related factors, psychiatric morbidity and burnout, controlling for demographic factors. RESULTS: Questionnaires were returned by 155 physicians and 216 nurses (overall response rate 40%). Estimated prevalence of psychiatric morbidity was 25% among physicians and 36.9% among nurses. Burnout on the emotional exhaustion scale affected 38.7% of physicians and 46.4% of nurses. With emotional exhaustion as an at-risk level of psychiatric morbidity (p < 0.001). The likelihood of psychiatric morbidity among physicians was significantly higher for physicians who reported low decisional power in relation to responsibilities, insufficient economic rewards and increased utilization of the new extended-release formulation of venlafaxine (Effexor XR®) has risen exponentially, and this new formulation was 8 times more prescribed than its predecessor in 2009. After 2008, two new SNRIs (Pristiq® and Savella®) were marketed, but their market shares were still very small at the end of 2009. In total, Medicaid spent $342 million for 2.20 million prescriptions for SNRIs in 2009. The SNRIs as a class represented 20% of total Medicaid reimbursement for antidepressants at the end of 2009. CONCLUSIONS: Increased utilization may be due to multiple approved indications. Very little price competition is observed between brands or between brand and generic venlafaxine.

PERSISTENCY OF BUPRENORPHINE/NALOXONE USING AN INSURANCE DATABASE IN THE UNITED STATES

Zah V1, Aballea S2, Guelfucci F3, Clay E3, Baxter T4. OBJECTIVES: To evaluate persistence and factors associated with persistence to antidepressant medications in depressed children and adolescents and to evaluate health care expenditures across persistent and non-persistent patients. METHODS: Medical Expenditure Panel Survey (MEPS) data from the years 2002-2007 were used for the analysis. The study sample consisted of depressed children and adolescents taking an antidepressant. Multiple logistic regression analysis was conducted to examine factors associated with persistence, with controlling for various independent variables like the predisposing, enabling and need factors chosen on the basis of Anderson Behavioral Model, and controls for year and timeframe. Linear regression models, containing log of prescription drug expenditures and ambulatory expenditures as the dependent variables, were used to evaluate the expenditures. Unweighted statistical analysis was performed on the cell size. RESULTS: The sample consisted of 281 children and adolescents using antidepressants. Approximately 53% of the children and adolescents initiated on the antidepressant therapy were not persistent, but their market shares were still very small at the end of 2009. In total, Medicaid spent $159 million and $169 million for venlafaxine and duloxetine, respectively, for 1.00 and 1.07 million prescriptions. The price of venlafaxine has increased over time (the price in 2009 was almost 3 times the price in 1998). Utilization of the new extended-release formulation of venlafaxine (Effexor XR®) has risen exponentially, and this new formulation was 8 times more prescribed than its predecessor in 2009. After 2008, two new SNRIs (Pristiq® and Savella®) were marketed, but their market shares were still very small at the end of 2009. In total, Medicaid spent $342 million for 2.20 million prescriptions for SNRIs in 2009. The SNRIs as a class represented 20% of total Medicaid reimbursement for antidepressants at the end of 2009. CONCLUSIONS: Increased utilization may be due to multiple approved indications. Very little price competition is observed between brands or between brand and generic venlafaxine.

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toward suicide prevention. **METHODS:** Suicide prevention (SAVE or “guide”) training was implemented nationwide starting in 2007. All employees that interact with patients must take the 1-hour instructor-led class consisting of videos, worksheets and discussion regarding suicide statistics, suicide risk factors, and the responsibility to recognize suicide and to intervene with patients in distress, including taking an urgently distressed patient by the hand and walking him from the outpatient pharmacy to the emergency room, for example. At the end of training, employees completed surveys about attitudes and knowledge of suicide and their role in prevention with Likert scales (range–1 to 5). Descriptive statistics and linearized general models (GLM) were used to assess differences in pharmacy staff knowledge and attitudes before and after training and to compare pharmacy staff to all employees. **RESULTS:** 7,431 employees from 251 VA Medical Centers completed surveys on September 30, 2008, including 290 pharmacy residents and pharmacy staff. At baseline, compared to all employees, pharmacy staff reported lower levels of suicide knowledge (22% vs 31%), comfort in talking about suicide (43% vs 59%), and being prepared to handle suicidal veterans (10% vs 28%). Pharmacists and pharmacy staff improved significantly on every measure (p<0.0001) by the end of training. We found no differences between pharmacists and other pharmacy staff. After training when given the statement “I completely agree that I am prepared to handle a suicidal veteran,” women and those with additional suicide prevention training were most likely to agree while men and older employees were least likely to do so. **CONCLUSIONS:** Pharmacists and pharmacy staff may have greater baseline needs for training in suicide prevention than other staff.

**PMH7**

**UTILIZATION PATTERN OF PSYCHOTHERAPY AS AN ADJUNCT TO PHARMACOTHERAPY AMONG AMBULATORY BIPOLAR DISORDER PATIENTS**

Mehta S, Bhattacharjee S, Aparasu RR

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**OBJECTIVES:** Psychotherapy has been recommended to be used in conjunction with pharmacotherapy in the treatment of bipolar disorder. This study examined the prescribing patterns of the combination of psychotherapy and pharmacotherapy to treat bipolar disorder in patients receiving outpatient care in the United States. **METHODS:** Data from 2006–2007 National Ambulatory Medical Care Survey (NAMCS) and the outpatient department of National Hospital Ambulatory Medical Care Survey (NHAMCS) were combined to analyze treatment patterns for bipolar disorder. Descriptive statistics was used to examine demographic as well as the clinical characteristics of patients’ visits and the utilization pattern of psychotherapy in combination with several psychotropic medications. **RESULTS:** Bipolar disorder was diagnosed in 108,000 annualized outpatient visits in 2007, representing 0.29% of the overall visits. Most of the visits were made by females (66%), whites (91%) and non-Hispanics (84%). Psychiatric comorbidities such as anxiety disorders, attention-deficit/ hyperactivity disorder and substance use disorder were present in approximately 34% of the visits. The most prescribed combination was psychotherapy along with mood stabilizers in 1.46 million visits (24.12%) and psychotherapy along with atypical antipsychotics in 1.19 million visits (19.6%). **CONCLUSIONS:** Less than one-third of the patients with bipolar disorder were prescribed psychotherapy in combination with pharmacotherapy as recommended for treatment of bipolar disorder. More research is needed to evaluate the reasons for possible sub-optimal use of psychotherapy in bipolar disorders.

**PMH8**

**PERSISTENCE OF STIMULANT TREATMENT IN CHILDREN AND ADOLESCENTS WITH ATTENTION-DEFICIT HYPERACTIVITY DISORDER**

Falk RP, Aparasu RR, Chen H, Shera T

HealthCore, Inc., Wilmington, DE, USA, 1University of Houston, Houston, TX, USA

**OBJECTIVES:** To compare and identify the factors associated with persistence of stimulant classes in children and adolescents with Attention-Deficit Hyperactivity Disorder (ADHD). **METHODS:** A retrospective longitudinal cohort analysis was conducted using the Medicaid Analytic eXtract data from 4 states - New York, Illinois, Texas and California. ADHD patients, aged 6-18 years with at least one stimulant prescription claim for a short-acting (SAS), intermediate-acting (IAS) or long-acting stimulant (LAS) were included. Those with one or more patients involved or outcomes of the medication were included. Medicaid (CD-9-CM code 314.xx) during the study period (January 2003 to December 2005) were selected. New stimulant users were defined as those with no previous stimulant drug prescription in the preceding 6 months. Additional criteria for inclusion included 180 days of pre- and post-index continuous Medicaid eligibility and receipt of individual type claims for at least 30 days of the index medication was measured by summing the number of days the patient remained on the index stimulant therapy from the index prescription date with a maximum refill gap between two consecutive index stimulant claims of 30 days. Stratified linear regression was performed to determine the influence of the factors associated with adherence for the three stimulant classes. **RESULTS:** Among the 63,362 ADHD patients (10,033 SAS, 5,016 IAS and 48,268 LAS users), IAS group had significantly longer mean and median persistence (76% & 94 days), than the patients in SAS (102 & 60 days) or IAS group (78 & 95 days). Regression models revealed that race/ethnicity and recent inpatient psychiatric treatment were negatively associated with stimulant persistence in the three stimulant classes. Age (<13 years) and addition of another psychotropic medication, however, improved persistence significantly in all three stimulant classes. **CONCLUSIONS:** Long acting stimulants had comparatively longer persistence than other stimulant classes. An understanding of demographic and clinical characteristics that influence treatment continuation can help to improve persistence rates in ADHD.

**PMH9**

**PSYCHOTROPIC POLYPHARMACY IN CHILDREN AND ADOLESCENTS WITH ATTENTION-DEFICIT / HYPERACTIVITY DISORDER**

Shin S, Aparasu RR, Chen H, Shera T

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**OBJECTIVES:** To examine the prevalence and time to psychotropic polypharmacy in children with Attention-Deficit Hyperactivity Disorder (ADHD). **METHODS:** This retrospective longitudinal database analysis of medical, pharmacy and eligibility data was performed on Medicaid enrollees from four states – Texas, New York, California, and Illinois – during a 3-year period (January 2003 and December 2005). ADHD patients were identified on the basis of one or more ADHD diagnosis and stimulant (short-acting [SAS], intermediate-acting [IAS] or long-acting [LAS]) prescription(s). New stimulant users were selected if the index stimulant prescription was filed between July 1, 2003 and June 30, 2005 with no previous stimulant drug prescription in the preceding 6 months. Additional eligibility criteria included con- tinuous Medicaid eligibility 180 days pre- and post-index date and no multiple index stimulant type claims. Psychotropic polypharmacy episode was defined as ≥30 consecutive days of non-stimulant therapy overlapping with the index stimulant therapy. The time to psychotropic polypharmacy was assessed by calculating the time from the index stimulant date to the first day of polypharmacy treatment episode using the Cox proportional Hazards model. **RESULTS:** Among the 63,362 ADHD patients, 19.95% of SAS users, 24.26% of IAS users and 29.56% of LAS users received combination pharmacotherapy involving their index stimulant. Median survival time to psychotropic polypharmacy was found to be 299, 312, and 330 days in the SAS, IAS and LAS treatment groups respectively. Recent inpatient psychiatric visit(s) and younger age emerged as the common risk factors predicting index stimulant and a psychotropic co-prescription. In addition, race/ethnicity and a comorbidity of tics were also identified as predictors for LAS-related psychotropic polypharmacy. **CONCLUSIONS:** Over one in five new stimulant users with ADHD received a concomitant non-index stimulant prescription within a year of commencing stimulant therapy. Demographic and clinical characteristics seem to play a key role in psychotropic polypharmacy in children with ADHD.