

cal antipsychotics, including use and average daily dose by chemical, use in community and long-term care settings, as well as use among seniors with and without claims for anti-dementia drugs. **RESULTS:** The rate of antipsychotic use among seniors in all provinces grew from 4.3% in 2001–2002 to 5.0% in 2006–2007. The rate of growth of antipsychotic use slowed during the study period from an average of 5.2% per year between 2001–2002 to 1.0% between 2003–2004 and 2006–2007. Antipsychotic use was highest among females and seniors 85 and older. There was a continued shift to the use of atypical agents from typical agents over the study period. In 2006–2007, 37.7% of senior nursing home residents in three provinces had claims for atypical antipsychotics, compared to only 2.6% of seniors living in the community. When looking at only seniors with claims for anti-dementia drugs, use of atypical antipsychotics was higher among nursing home residents. **CONCLUSIONS:** This analysis provides insight into antipsychotic use among seniors. Antipsychotic use increased throughout the study period, although its rate of growth declined following the release of the new safety information. The rate of atypical antipsychotic use was higher in seniors living in nursing homes and in those taking anti-dementia drugs.

PMH82

OUTCOMES OF SECOND GENERATION ATYPICAL ANTIPSYCHOTICS, FIRST GENERATION ANTIPSYCHOTICS AND ROUTINE OUTPATIENT BEHAVIORAL HEALTH SERVICES IN PREVENTING ARRESTS IN PERSONS WITH SEVERE MENTAL ILLNESS

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OBJECTIVES: Examine arrest outcomes for adults with severe mental illness (SMI) treated with second generation atypical antipsychotics (SGAs), first generation antipsychotics (FGAs) or no medication. **METHODS:** Continuous medication episodes lasting at least 60 days between 2004 and 2008 were examined (N individuals = 36,519; N episodes = 222,928). Medication episodes were coded as: 1) SGA—clozapine, risperidone, olanzapine, quetiapine, ziprasidone, aripiprazole, or RLA; 2) FGA—any other antipsychotic medication; or 3) none. *Outpatient services* included at least one behavioral health visit every 30 days of an episode. Data are from Florida's Medicaid program and Department of Law Enforcement. Arrest was modeled as a function of medication controlling for time, outpatient treatment, and relevant demographic and diagnostic characteristics using survival analysis. Models also adjusted for the baseline propensity to receive an SGA. **RESULTS:** Five percent of medication episodes contained an arrest. There was a trend ($p = 0.10$) for the main effect of SGA episodes to reduce arrests compared to FGA episodes; however, the interaction between outpatient services and SGA episodes was significant (Hazard Ratio [HR]: 0.80; 95% Confidence Limits [CL]: 0.65–0.99; $p < 0.05$) such that at least one outpatient visit every 30 days of an SGA episode reduced arrests compared to FGA episodes. Compared to no medication episodes, the interaction between outpatient treatment by SGA episodes reduced arrests (HR: 0.87; 95% CL: 0.76–0.99; $p < 0.05$) whereas outpatient treatment by FGA episodes did not reduce arrests. Substance abuse, medication gaps, and prior arrest increased risk of subsequent arrest. **CONCLUSIONS:** There was a statistically significant interaction between outpatient visits and treatment that indicated an association between a reduced risk of arrest for SGAs compared to FGAs and no medication periods. These findings suggest the importance of both effective antipsychotic medications and outpatient interventions to reduce arrests in adults with SMI.

PMH83

HEALTH CARE EXPENDITURES IN PEDIATRIC POPULATION WITH DEPRESSION IN THE UNITED STATES

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OBJECTIVES: To examine the patterns and associated factors of health care expenditures in the pediatric population with depression using 2005–2006 Medical Expenditure Panel Survey (MEPS) data. **METHODS:** Analysis was based on a nationally representative sample of children and adolescents aged 5 to 17 years with an ICD-9-CM diagnosis of depression from the 2005–2006 MEPS. Multivariate model within the conceptual framework of Andersen's Behavioral Model was used to examine factors related to health care expenditures in children and adolescents with depression. Smearing techniques were used to transform estimated log costs into actual costs. **RESULTS:** Analysis of annual expenditures in children and adolescents with depression revealed that average total and out-of-pocket payments per child with depression were \$3963 (95% CI 2453–5471) and \$672 (95% CI 377–973), respectively. Prescription-related expenditures in children and adolescents with depression revealed that average total and out-of-pocket payments were \$1096 (31% of total) and \$343 (51% of total), respectively. Multivariate model revealed that predisposing, enabling, and need factors were associated with total health expenditures. Among the predisposing characteristics, age (+\$3069) and family history of psychiatric disorders (+\$2066) were positively associated with total expenditures. Among the enabling characteristics, children and adolescents having usual source of care provider had lower total expenditures (–\$3523) than those without usual source of care. Hyperactivity disorders (+\$4001) and functional impairment (+\$1304) increased total expenditures in children with depression. **CONCLUSIONS:** Analysis of MEPS data revealed prescription medications account for significant portion of total and out-of-pocket expenditures. Predisposing, enabling, and need factors play an important role in the overall burden of pediatric depression in the United States.

PMH84

COST OF PHARMACEUTICAL CARE IN PATIENTS WITH METABOLIC SYNDROMES CAUSED BY ATYPICAL ANTIPSYCHOTICS

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OBJECTIVES: The aim of this study was to evaluate the probability of metabolic syndrome caused by atypical antipsychotics after long term therapy and the cost of pharmacist interventions to improve these metabolic adverse effects. **METHODS:** A total of 431 adults prescribed atypical antipsychotics therapy from 2002 to 2007 were retrieved from the claim database. The primary outcome measurement was the probability of metabolic syndrome caused by atypical antipsychotics after long term therapy. The secondary outcome was to evaluate the cost of pharmacist intervention. Pharmacist consultation clinic for measuring their waist, buttocks, pharmaceutical education and body weight management. Computerized physician order entry alerting system for abnormal metabolic chemical variables remind physician to attend patients abnormal laboratory data and adjust the treatment regimen. **RESULTS:** The primary outcomes showed that the total rate of metabolic syndrome induced by atypical antipsychotics were 16% (48/298). The secondary outcome, the abnormal BMI value of 50 patients, who received pharmacist consultation services, decreased from 52% to 41%. After establishment of computerized physician order entry alerting system, the possibility of patients' abnormal biochemical values induced by atypical antipsychotics decreased from 4.28% (33/771) to 1.23% (8/651). The clinical effectiveness of this research included the occurrence of dyslipidaemia and disorders of glucose homeostasis associated with cardiovascular disease. The total direct medical cost saved for this pharmaceutical care was approximately NT 1,428,250 during this study period. **CONCLUSIONS:** All patients receiving atypical antipsychotic agents associated with metabolic adverse events should be routinely monitored on weight gain, abnormal blood glucose and lipid levels. The effective communication and collaboration with mental health care and pharmaceutical care services is an effective model for caring patients with mental disease.

PMH85

IMPACT OF FDA ANTIDEPRESSANT BLACK BOX WARNING AND OTHER REGULATORY CHANGES ON PRESCRIPTION PATTERN FOR CHILDREN BY OFFICE BASED PHYSICIANS USING NATIONAL AMBULATORY MEDICAL CARE SURVEY (NAMCS)

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OBJECTIVES: The aim of the study is to determine the impact of black box warning and other regulatory changes related to antidepressants on the prescription pattern of antidepressants for children and adolescents by office based physicians. **METHODS:** Data for the present study was obtained from National Ambulatory Medical Care Survey (NAMCS), 2003–2005. Patients under the age of 18 were included in the study, if they had at least one antidepressant prescribed. Prescription pattern of antidepressant was assessed in terms of rate of antidepressants prescribed, type of antidepressants, physician specialty and demographics such as age, gender and race. Descriptive statistics were carried out using SPSS 17. **RESULTS:** The number of visits with at least one antidepressant prescribed for children and adolescents were 228 (10.37%), 213 (9.23%) and 184 (6.81%) for year 2003, 2004 and 2005 respectively. Rate of prescribing Fluoxetine per 100 antidepressants increased from 17.16 in 2003 to 19.13 in 2004 and 26.26 in 2005, rate of prescribing Paroxetine decreased from 17.91 in 2003 to 11.30 in 2004 to 11.11 in 2005. The number of antidepressants prescribed by psychiatrists decreased from (186, 81.6%) in 2003 to (164, 77%) in 2004 and (135, 73.6%) in 2005. **CONCLUSIONS:** The rate of prescribing antidepressants to children and adolescents decreased after FDA black box warning in 2004. The prescription rate of Fluoxetine increased after FDA approved it for children and adolescents in 2004 while prescription rate of Paroxetine decreased after 2003 when FDA recommended that it shouldn't be used in pediatric patients. No changes were observed in antidepressant prescribing by primary care physicians.

PMH86

AGE RELATED TREATMENT DIFFERENCES AMONG CHILDREN WITH BIPOLAR SPECTRUM DISORDERS

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OBJECTIVES: To identify the extent to which psychotropic medication prescribing for bipolar spectrum disorders differs for younger children as compared with older children. Identifying if younger children receive similar diagnoses and treatments as older children is important, as this may inform clinical trial designs and the degree to which medication use in older children can be generalized to younger children. **METHODS:** A retrospective cohort was constructed using 2005–2007 MarketScan data. Patients under 18 years of age, with one inpatient or two outpatient insurance claims for any bipolar spectrum disorder were included. Patients whose pharmacy data were unavailable or who were not continuously insured from diagnosis to 30 days after diagnosis were excluded. Ages 9 and under were considered "younger" and ages 10–17 were considered "older." Medication use was summarized as therapies prescribed within 30 days after the last bipolar diagnosis. Psychotropic medication use included lithium, anticonvulsants, antipsychotics, antidepressants, or stimulants. **RESULTS:** Approximately 11,000 children were eligible for inclusion in each study year. In 2007, 64.1% of younger and 62.8% of older children received psychotropic medications for bipolar disorder. Younger children were less likely than older children to receive lithium (8.2% versus 11.6%), anticonvulsants (36.2% versus