adults. Over three-fourths of older adults with depression use antidepressants for annual expenditure of nearly $10 billion, mostly for SNRIs and SSRIs.

PMH72
UTILIZATION PATTERNS AND ADHERENCE TO PSYCHOTROPIC POLYPHARMACY IN BIPOLAR CHILDREN AND ADOLESCENTS

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OBJECTIVES: Polypharmacy has now become a norm instead of an exception in the treatment of pediatric bipolar disorder (PBD). The objective of the study was to identify the most commonly used psychotropic combinations in PBD patients and to evaluate the se ' adherence patterns of the combination regimens. **METHODS:** 2003-2007 Medicaid Analytic eXtract (MAX) data files from 4 US states were used. Children and adolescents (6-18 years) were identified if they were newly discharged from a hospital with bipolar disorder as their primary diagnosis. Polypharmacy was operationally defined as at least 14 days overlap between the episodes of 2 psychotropic drugs. These patients were followed for a year since their hospital discharge to observe the adherence patterns. Adherence for combination regimens was measured using medication possession ratio (MPR), calculated for each individual drug separately and compared with the adherence when the drug was used alone. Multivariate logistic regression analysis was performed to examine the factors associated with treatment adherence. **RESULTS:** Of the 7337 PBD patients identified, about 70% (n=5142) received combination treatments, and 62% (n=4540) received combinations of an atypical antipsychotic plus a mood stabilizer. Overall MPRs for monotherapy and polypharmacy users were 0.69($\pm$0.26) and 0.74($\pm$.024), respectively. Multivariate analysis revealed that the combination users had higher MPRs as compared to the correspondent monotherapy users. When compared to atypical antipsychotic monotherapy users, combination users who initiated with an atypical monotherapy (OR=1.3;CI=1.12-1.5), atypical plus mood stabilizer(OR=1.27; CI=1.1-1.47) and two atypicals (OR=2.45;CI=1.26-4.74) were all associated with better compliance. Other factors associated with higher MPRs were being white (O.R=1.71;C.I.=1.48-1.98) and foster care (O.R.=2.19;C.I.=1.91-2.51). Older age group (13-18 years) (O.R=0.81;C.I.=0.71-0.92), however, was associated with having lower MPRs. **CONCLUSIONS:** Psychotropic polypharmacy is common among children and adolescents with bipolar disorder. Addition of another psychotropic medication to monotherapy regimen often leads to improvement in medication adherence.

PMH73
ESTIMATING OFF-LABEL USE OF PRESCRIPTION DRUGS: THE CASE OF GABAPENTIN

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OBJECTIVES: Studies have indicated that approximately 80 to 95 percent of gabapentin use is off-label. However, evidence in support of these off label uses is limited. There is an increasing body of research on the efficacy of gabapentin for treating pain and mental conditions, but much of this work (especially that for mental conditions) is preliminary and suggestive at best. The objective of this study is to examine, using a nationally representative sample, the efficacy of gabapentin in treating the wide range of off-label conditions for which there is little or no evidence and the few conditions for which there is already some evidence. **METHODS:** The study uses the 1997-2007 Medical Expenditure Panel Data set. Users of gabapentin were identified and the top 20 ICD9 Codes, by age group, associated with prescriptions for gabapentin were used to select control subjects. Subsamples associated with pain, neurologic conditions, mental health, and other off-label conditions were created. Ordinary least squares and propensity score matching following the regression method attributed to Hirano and Imbens were used to examine the association of gabapentin and self-reported health (physical and mental health) with controls for lagged health, age, gender, race, income, education, insurance, and co-morbidities. **RESULTS:** Use of gabapentin was negatively associated with reporting of good physical or mental health in almost all cases. The coefficients in the propensity score controlled models tended to be smaller but still suggested a significant relationship between gabapentin use and a 5-10% lower probability of reporting good physical or mental health. **CONCLUSIONS:** There was little evidence that the use of gabapentin is associated with better self-reported physical or mental health and lower medical spending. There is a strong case for improved efforts to promote evidence based use of medications as there is a potential for significant expenditures with little or no impact on health.

PMH74
PATTERN OF ANTIDEPRESSANTS UTILIZATION AND COST IN IRAN DURING 2007-2009

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OBJECTIVES: Antidepressant prescribing have changed globally over the last few years, with conventional drugs like tricyclics and MAO inhibitors being gradually replaced by selective serotonin reuptake inhibitors (SSRIS) and novel antidepressants. The prescribing of antidepressants varies by country, and the type of antidepressant chosen is influenced by both physician and patients. The aim of this study was to assess prescribing and usage pattern of antidepressant medications and cost of them. **METHODS:** A retrospective cross-sectional study was carried out on insurance prescriptions during 3 years from 2007 to 2009. All insurance prescriptions were collected using especial software called Rx Analyst during the study period in the National Committee of Rational Drug Use, and then reviewed for prescriptions included at least one dosage form of antidepressants. Data related to

dispensing of antidepressants were obtained from the official databank of national regulatory authority. Drugs were classified according to the Anatomic Therapeutic Chemical (ATC-1999 edition) System. **RESULTS:** A total of more than 224 million prescriptions were reviewed. The number of antidepressants that prescribed were 134 million (4.18%), 155 million (4.34%) and 173 million (4.17%) in 2007, 2008, and 2009, respectively. Meanwhile, the number which dispensed from wholesaler to retail pharmacies in that period was 945 million (3.23%), 960 million (3.33%), and 1 billion (3.35%) in 2007, 2008, and 2009, respectively. The most frequently prescribed substances were nortriptylline, fluoxetine, and citalopram, which accounted for 67% of all prescriptions. The total price of antidepressant prescribed during study period was 15264270 US$ and total sale was 111442111 US$ obtained from national sale data. **CONCLUSIONS:** There is a remarkable variation in antidepressants prescribing and dispensing that might be related to self-medication of these compounds. A multi interventional policy including educational, regulatory, managerial, and financial strategies for professions and public should be planed to promote rational use of antidepressant medications.

PMH75
UTILIZATION OF PRESCRIPTION SEDATIVE HYPNOTICS IN PATIENTS WITH AND WITHOUT INSOMNIA DIAGNOSIS

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Sedative hypnotic drugs are widely used to treat sleep disorders, but it is unclear how their utilization varies by drug and patient diagnosis. **OBJECTIVES:** TO DESCRIBE UTILIZATION PATTERNS FOR VARIOUS SEDATIVE HYPNOTIC DRUGS IN PATIENTS WITH AND WITHOUT A CLAIM FOR INSOMNIA. **METHODS:** This study was a cohort analysis of sedative hypnotic utilization in the US-based Marketscan commercial health care claims database for 2008-2010. Patients included those with and without an ICD-9 code for insomnia who were treated with sedative hypnotics including zolpidem, zaleplon, eszopiclone, and selected benzodiazepines (alprazolam, lorazepam, and diazepam). Outcomes included mean and median number of prescriptions filled, duration between refills, and switching patterns over 1 year of follow-up. **RESULTS:** A substantial proportion of sedative hypnotic use (55-92%, depending on the drug) is in patients without an insomnia diagnosis. The mean number of prescriptions was consistently higher in those with than without an insomnia diagnosis. In zolpidem, those with an insomnia diagnosis received a mean of 4.8 (95% CI 4.76-4.81) prescriptions within a year, while those without an insomnia claim received 2.8 (95% CI 2.82-2.84). Similarly, the duration of time between refills was lower for those with than without an insomnia claim; for zolpidem, the mean number of days between refills was 63.3 and 83.6, respectively. The duration between prescriptions also varied by drug, with zolpidem and eszopiclone having a shorter mean number of days between refills than zaleplon or the benzodiazepines (75, 65, 84 or 90, respectively). More patients with than without insomnia claims (26.7% vs. 9.4%) switched from one sedative hypnotic drug to another. **CONCLUSIONS:** Drug utilization in users of sedative hypnotics varies substantially by diagnosis and drug. Those with claims for insomnia receive drug for longer periods of time, and with less time between refills than those without documented insomnia diagnoses.

PMH76
IMPACT OF FDA BLACK BOX WARNING ON THE PRESCRIBING OF ATYPICAL ANTIPSYCHOTICS IN NON-INSTITUTIONALIZED DEMENTIA PATIENTS

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OBJECTIVES: In April 2005, the Food and Drug Administration (FDA) issued a black box warning (BBW) regarding the risks of using atypical antipsychotics (AAPs) for behavioral disorders in elderly patients with dementia. The objective of the present study was to investigate the impact of the BBW on the utilization of AAPs in elderly non-institutionalized dementia population. **METHODS:** Medical Expenditure Panel Surveys, from year 2004 through 2007, were used in the study. Utilization rates of AAPs pre-warning (2004-2005) and post-warning (2006-2007) were measures of primary interest in both overall and Medicare samples. Chi-square tests and multivariate logistic regression analyses were performed to examine pre-post differences in utilization rates (defined as elderly patients taking at least one medication associated with dementia) and gain insights into patterns of AAP use with respect to demographic, insurance and other factors. **RESULTS:** AAP use declined in the post-warning period for the main sample (X^2= 0.81, $p<0.3668$) as well as Medicare sample (X^2= 2.72, $p<0.0992$). However the decline was not statistically significant. Additionally, bivariate analyses of the main sample showed significantly higher proportion of patients receiving AAPs in the post-warning period for individuals with prescription drug coverage (x^2= 21.63, p <0.0001). In contrast, a similar analysis for the Medicare sample revealed significantly higher proportion of patients receiving AAPs in the post-warning period for people with no Medicare drug coverage (x^2= 20.83, p <0.0001). Further, logistic regression analyses showed no significant decline in the use of AAPs in the post-warning period for the main sample (Odds Ratio, OR = 0.831, CI = 0.366 – 1.885) as well as the Medicare sample (OR= 0.798, CI= 0.364 – 1.753). **CONCLUSIONS:** The regulatory warnings and labeling changes regarding off-label use of AAPs in dementia treatment seem to have made little impact on the actual use in non-institutionalized populations.

PMH77
ATYPICAL ANTIPSYCHOTIC BLACK BOX WARNING AND ITS EFFECT ON NON-ANTIPSYCHOTIC PSYCHOTROPIC DRUGS IN NON-INSTITUTIONALIZED DEMENTIA PATIENTS

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