OBJECTIVES: Olanzapine and risperidone are the two most widely used second-generation antipsychotic medications by California Medicaid (Medi-Cal) patients with severe mental disorders. This analysis investigates the factors associated medication choice by Medi-Cal patients with bipolar disorders who restart therapy after a break in treatment. METHOD: Paid claims data were analyzed to identify antipsychotic ‘re-starter’ treatment episodes initiated between January 1999 and March 2003. An episode was defined each time a patient re-started therapy on a new medication or restarted the same drug after a break of 15 days or more. Only re-starter episodes with olanzapine or risperidone were selected if 6 months of pre-treatment and 12 months of post-treatment data were available. Multivariate logistic regression was used to investigate the factors that affected treatment choice. RESULTS: A total of 90,282 treatment episodes meet study selection criteria. Olanzapine was the initial medication in 56% of re-starter episodes. Mean age was 39 and the mean duration of uninterrupted treatment was 170 days. Patients in every age category over 25 years of age were between 24% to 46% more likely to receive olanzapine, as were Asian patients (+11%) and patients with prior use of psychiatric hospital care (+6%). The likelihood of using olanzapine also increased significantly with the cost of non-institutional care consumed in the prior 6 months. Risperidone patients were more likely to be female (+10%), AFDC recipients (21%), urban (+6%) or rural (6%) residents, Hispanic (+7%), black (+9%), other minority (+7%) diabetic (+23%) and have a history of prior nursing home use (+10%)(p < 0.05 for all results). CONCLUSION: Physicians in California used olanzapine and risperidone differentially to treat bipolar disorders. The observed differences in patient characteristics for olanzapine and risperidone patients will affect both treatment outcomes and post-treatment costs and must be adjusted for before comparing the outcomes achieved using these agents.

PMH16

OLANZAPINE VERSUS RISPERIDONE IN THE TREATMENT OF BIPOLAR I DISORDER: DETERMINANTS OF CHANGE IN SEVERITY OF BIPOLAR ILLNESS RATINGS
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OBJECTIVES: In a direct comparison of patients with bipolar manic or mixed episodes, olanzapine and risperidone showed similar efficacy in mania ratings (Baker, APA 2003), but olanzapine had greater efficacy on clinician global impression of severity (CGI-S). We performed a post-hoc analysis investigating possible determinants of this differential treatment effect. METHODS: This 3-week, double-blind study compared olanzapine (5–20mg/day; N = 165) to risperidone (1–6mg/day; N = 164) in mania or mixed episodes. Path analysis dissected the CGI-S treatment effect into drug effect explainable by effects on manic, depressive and extrapyramidal symptoms, measured by standard rating scales, versus other treatment effects not accounted for by rating scales. Demographic and disease characteristics were examined to determine if they were significant predictors of CGI-S improvement. Analysis of variance and regression models used change from baseline to endpoint (last observation carried forward) for all analyses. RESULTS: Olanzapine-treated patients achieved significantly greater improvement in CGI-S than risperidone-treated patients (p = 0.014). While changes in manic and depressive symptoms were significant predictors of the change in CGI-S (both p < 0.001), treatment effect remained statistically significant (p = 0.006) even after adjustment for change in these effects. In fact, 93% of olanzapine’s superior treatment effect on CGI-S was not attributable to changes in mania, depression, or extrapyramidal symptoms. Race, gender, rapid cycling status, manic vs. mixed diagnosis, age of disease onset, and weight change were not significant determinants of CGI-S change. A significant interaction was detected between age and treatment: older olanzapine-treated patients had greater CGI improvement compared to older risperidone patients; no differences occurred between treatments for younger patients. CONCLUSIONS: Rating scale, demographic, and illness characteristics were at most modest determinants of improvement in global illness severity. Even after adjusting for significant determinants, olanzapine-treated patients still experienced significantly greater improvement than risperidone-treated patients in global illness severity.

PMH17

ANTIDEPRESSANT MONOTHERAPY AND OUTCOMES FOR PATIENTS WITH BIPOLAR DISORDER
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OBJECTIVE: American Psychiatric Association (APA) practice guidelines do not recommend antidepressant monotherapy in patients with bipolar disorder, given the risk of precipitating a switch into mania. However, few data have provided empirical evidence to support such a guideline from the population perspective. This study assesses the clinical and economic impact of antidepressant monotherapy in patients with bipolar disorder. METHODS: Subjects with bipolar disorder were identified among continuously enrolled adult members in a national managed care plan between January 1997 and June 2002. A total of 34,493 monotherapy episodes for 13,016 bipolar patients were defined based on the computerized diagnosis and pharmacy records. Log-transformed multivariate models were employed to identify the relationship between the type of monotherapy (mood stabilizers, antidepressants, or antipsychotics) and 6-month bipolar-related health care costs after the treatment discontinuation. RESULTS: Antidepressant monotherapy use was highly prevalent in this patient population, with rates ranging from 53% to 64% over the 5-year period. Controlling for age, gender, regional differences, and disease severity, bipolar-related health care costs significantly increased with longer duration of antidepressant monotherapy (p < 0.0001). However no such relationship was observed with mood stabilizer monotherapy (p = 0.36) or antipsychotic monotherapy (p = 0.37). This increase in costs with antidepressant monotherapy was due to an increased risk of manic switching (1.3% per person-month) compared to mood stabilizer use (p < 0.0001). CONCLUSIONS: This study provides evidence of adverse clinical and economic outcomes following antidepressant use in a bipolar population. In spite of the known risk of manic switching with antidepressant monotherapy, use remained high from 1997–2002. Systematic educational efforts are needed to communicate treatment guidelines.

PMH18

THE EFFECTS OF OPEN ACCESS ON DRUG THERAPY OUTCOMES FOR PATIENTS WITH BIPOLAR DISORDER IN THE CALIFORNIA MEDICAID (MEDI-CAL) PROGRAM
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OBJECTIVE: The California Medicaid program (Medi-Cal) initiated open access to atypical antipsychotic medications in October 1997. This analysis evaluates the impact of open access on drug therapy outcomes and treatment costs in patients with bipolar disorder. METHODS: We conducted a retrospective database analysis of patients diagnosed with bipolar disorder...
who initiated an episode of drug therapy between July 1994 and December 31, 1999. Episodes were required to have a minimum of 6 months of pre-treatment and 12 months of post-treatment data. Episodes were then separated into three time periods: a “closed-access period” prior to October 1997, a “transition period” covering the first 6 months of open access, and an “open access period” for episodes initiated after April 1, 1998. Multivariate regression models were used to estimate the impact of open access on total health care costs and duration of therapy. Cox proportional hazard models were estimated for time to discontinuation. RESULTS: The number of patients re-starting drug therapy or augmenting an existing therapy increased immediately with open access due to increased use of second-generation medications. Episode initiation rates returned to pre-open access levels within 6 months (transition period). Open access significantly reduced total costs primarily due to significant savings in nursing home care ($1700 and $1807 for re-starters and augmenters, respectively). However, drug persistence also declined with open-access: 42 fewer days for re-starters and 33 fewer days for augmenters. Augmenters and re-starters were 16% and 12% more likely to discontinue therapy if their episodes were initiated in the open access period. CONCLUSIONS: The decision to include atypical antipsychotics by the Medi-Cal program resulted in lower persistence of drug therapy and lower total health care costs. Decision-makers and program administrators must use caution in evaluating the impact of open access to new antipsychotic medications on patient outcomes and costs.

ESCITALOPRAM IN THE TREATMENT OF KLEPTOMANIA
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OBJECTIVES: Kleptomania involves stealing items that are not needed or have limited value from shops, strangers and acquaintances. Its prevalence is estimated at 6 per 1000 U.S. adults. Kleptomania appears to account for 5% of shoplifting. No controlled trials of pharmacotherapy for kleptomania have been published. We are conducting the first controlled trial of a medication for kleptomania. METHODS: We are enrolling adults aged 20 and older with kleptomania of 1 year’s duration, meeting DSM-IV criteria and marked by court referral or stealing at least once per week. We exclude individuals with psychiatric disorders, alcohol or substance abuse, bipolar disorder or antisocial personality disorder. Subjects receive open-label escitalopram 10mg/day for 4 weeks and if not “much improved,” take 20mg/day for an additional 3 weeks. A “responder” is a patient experiencing a least 50% decrease in the Y-BOCS-kleptomania version (Y-BOCS-K) scale score and a CGI-I score of much or very much improved. Responders are randomized double blind to continue for four months on either escitalopram or placebo.
RESULTS: We have enrolled 13 patients of a planned 24. Eleven completed the seven weeks of open-label escitalopram; two discontinued. The 11 completers include 9 women with a mean age of 46 years. Nine are employed full-time, one unemployed and one a student. Five are married, three single, three divorced. Ten of the 11 received escitalopram 20mg/day. The completers’ mean Y-BOCS-K score decreased from 23.1 (SD 5.1) to 8.6 (SD 7.8) at end of week 7. On a 0–4 scale, the strength of urges to steal decreased from a mean of 2.9 (SD 0.7) to 1.1 (SD 0.8). The mean number of weekly urges to steal decreased from 3.0 (SD 0.6) to 1.6 (SD 1.1). Eight subjects were responders. Of these eight, four relapsed during the 4-month double blind, placebo-controlled phase, but the blind remains unbroken. CONCLUSIONS: Early results suggest a therapeutic effect for escitalopram in treating kleptomania.

MENTAL HEALTH
MENTAL HEALTH—Cost Studies
PMH20
RISK OF REHOSPITALIZATION: OLANZAPINE VERSUS QUETIAPINE
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OBJECTIVE: To compare rehospitalization rates of individuals with schizophrenia who had been treated and discharged on olanzapine or quetiapine from acute care hospitals. METHODS: Using Premier’s Perspective® database—the largest U.S. hospital drug utilization database, rehospitalization status was examined for inpatients with schizophrenia (ICD-9-CM: 295.xx) that were successfully treated and discharged on olanzapine (N = 7573) or quetiapine (N = 3368) between January 1999 and September 2001. A successfully treated patient was one who started treatment with olanzapine or quetiapine in hospital and discharged on the same antipsychotic. Time to readmission up to 33 months was analyzed by Kaplan-Meier models. Cox proportional hazard models were used to derive the hazard ratio (HR) for rehospitalization by adjusting potential confounding factors. RESULTS: Overall rehospitalization rate in the study population was 35.3%. After adjusting for potential confounding factors, quetiapine therapy (average daily dose = 356.1 mg) was associated with 25% increased risk of rehospitalization compared to olanzapine (average daily dose = 17.3 mg) (HR = 1.25, 95% confidence interval 1.17–1.34, p < 0.0001). Additionally, younger age, schizoaffactive/paranoid diagnoses, higher severity level, and urban hospital location were significantly associated with higher risk of readmission. CONCLUSIONS: This study suggests that olanzapine-treated patients had lower risk of rehospitalization than quetiapine-treated patients. Moreover, certain patient demographic/clinical factors and institution characteristics also influenced hospital readmission.

RELATIONSHIP BETWEEN QUETIAPINE DOSE AND LEVELS OF MENTAL HEALTH RESOURCE USE AMONG PATIENTS WITH SCHIZOPHRENIA OR BIPOLAR DISORDER
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OBJECTIVE: Quetiapine’s relatively broad dosage guidelines (150–750 mg/day) may result in suboptimal dosing. This study investigated the association between quetiapine dose levels and efficacy as reflected in mental health resource use by patients with schizophrenia or bipolar disorder. METHODS: Patients who initiated quetiapine monotherapy and were treated for at least 4 months were identified in a large health plan database (1999–2002). Use of mental health resources other than quetiapine was measured by charges on all medical claims for mental disorders (ICD-9-CM codes 290.xx–316.xx) and on all prescription claims for other psychotropic medications. Each patient’s first quetiapine prescription was used to identify the target daily dose, because subsequent adjustments may have represented an effect rather than a determinant of health resource use, which was measured in months 2, 3, and 4 of treatment. Regression models controlling for patient differences measured associations between initial quetiapine dose and subsequent mental health charges. A significant negative association between dose levels and mental health resource use may be an indicator of suboptimal dosing. RESULTS: Patients with schizophrenia (N