RESULTS: Of the 230,738 eligible patients, 29.7% had depressive diagnoses (n = 68,526), 71.4% were female, mean age was 44.6 years, and 77.9% initiated on SSRIs. Using logistic regression models for the depression cohort, patients initiating on duloxetine (n = 2061) versus all other initiators were associated with being older (OR 1.02), having more prior pain diagnoses (OR 1.11), depression-related diagnoses (OR 1.52), major depressive disorder recurrent episode diagnoses (OR 1.28), pain medications (OR 1.27), antidepressants (OR 1.46), and any psychotherapy (OR 1.14) (all p < 0.01). Duloxetine patients also were more likely to initiate therapy later in the study (OR 1.04; p < 0.0001) and were prescribed therapy by mental health (OR 2.32) and other specialists (OR 1.40) versus primary care. When depressive diagnoses were absent, duloxetine patients (n = 2346) were more likely to be female (OR 1.21; p < 0.001) versus other antidepressant initiators (n = 162,212). All other factors remained consistent. Trends over time are necessary to determine the robustness of results. CONCLUSIONS: In the first four months after the drug’s availability, duloxetine initiators were associated with worse prior diagnostic and treatment histories. Case mix differences should be made when comparing drug cohorts.

MENTAL HEALTH—Methods and Concepts

PMH35

THE COST OF RELAPSE IN PATIENTS WITH SCHIZOPHRENIA IN THE PAN-EUROPEAN SOHO (SCHIZOPHRENIA OUTPATIENT HEALTH OUTCOMES) STUDY
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OBJECTIVE: To compare the treatment costs of schizophrenia patients who relapsed in the European SOHO study with those who never relapsed over three years. METHODS: The SOHO study is a 3-year prospective, outpatient observational study of 10,972 patients across 10 European countries. The Clinical Global Impression (CGI) Scale was used to measure clinical effectiveness on a scale of 1 (not ill) to 7 (most severely ill). The definition of relapse was based on increases in the CGI Scale and/or inpatient admission. Kaplan-Meier analysis was used to estimate the relapse rate over three years. The resource use (inpatient, day care, psychiatrist visits and medications) for those who ever relapsed during the three years of study was compared to those who never relapsed. UK costs were applied to the resource use. RESULT: A total of 6397 patients with complete data on CGI and resources were used in the analysis. A total of 2489 (39%) patients relapsed over the three years. The total cost for patients who relapsed (16,724.27 pounds) was higher than those who did not relapse (7724.93 pounds). 6368.88 pounds (71%) of cost difference was due to inpatient stays, 2020.13 pounds was due to day-care, 416.11 pounds due to medications and 194.22 pounds due to psychiatrist visits. The costs will also be modelled adjusting for patient characteristics and taking account of the fact that the cost data is not normally distributed. CONCLUSION: Relapsed patients used more health care resources in the treatment for schizophrenia. The cost of antipsychotic treatments which prevent relapse could be offset by the savings associated with preventing relapse.

PMH36

VARIATIONS IN THE OPERATIONAL DEFINITION OF MOOD DISORDERS IN RETROSPECTIVE CLAIMS DATABASE STUDIES
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OBJECTIVES: In retrospective claims database studies, defining the sample often receives less attention than the statistical methods used in the analysis. However, identifying an appropriate sample is a key step in the analytic process. The current research was undertaken to identify typical sample selection definitions in retrospective claims database studies of mood disorders. METHODS: A PubMed literature search was conducted to identify January 2000 to September 2005 publications with the major topic heading of mood disorders and terms such as administrative data, insurance claims or claims analysis. The criteria used for sample selection was abstracted from relevant studies. RESULTS: Forty-seven studies were abstracted, including 10 specifically focusing on major depressive disorder (MDD), 15 on depression and 13 on bipolar disorder (BPD). No set of ICD-9-CM diagnosis codes was used to identify these conditions across studies. Three studies defined MDD as 296.2 or 296.3 only, while others included codes for dysthymia (300.4) and depressive disorder not otherwise specified (311). Some used codes for adjustment reaction with depressive symptoms (309.0, 309.2). One study of depression used only 296.2 and 296.3, while another used nine different 4-digit ICD-9 codes. All BPD studies that specified codes used 296.4–296.6, but the inclusion of other 296 codes varied by study. Several publications did not list the specific diagnosis codes used. Some studies required at least two diagnoses, while others required only one. About half the studies provided little basis for the coding criteria used. CONCLUSIONS: A specific operational definition of mood disorders was not evident from the literature. Results of retrospective claims database studies with different sample selection criteria may vary, so it is important to assess findings in light of the sample definition.

MENTAL HEALTH—Patient Reported Outcomes

PMH37

COMPARING ADHERENCE AND PERSISTENCE WITH ANTIPSYCHOTIC THERAPY AMONG PATIENTS WITH BIPOLAR DISORDER
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OBJECTIVES: Compare adherence and persistence among patients with bipolar disorder (BPD) initiated on quetiapine versus other antipsychotics in a state Medicaid system over a 12-month follow-up period. There are few published economic evaluations of quetiapine in comparison with other antipsychotics. METHODS: Claims data for patients with BPD from a “de-identified” Medicaid database. Patients were assigned to quetiapine (QTP), olanzapine (OLZ), risperidone (RIS), or typical antipsychotic treatment groups based on first prescription filled between January 1, 1999 and December 31, 2001. Adherence was measured using the medication possession ratio (MPR): days’ supply of antipsychotic divided by the number of days between prescription fills. Persistence was defined as total number of days from initiation of treatment to therapy modification (discontinuation, switching, or combination with another antipsychotic). Adjustment for confounders was undertaken using ordinary least squares (OLS) and Cox proportional hazard regression modeling. RESULTS: Mean (±SD) MPRs were 0.71 ± 0.25 for QTP (n = 106), 0.68 ± 0.29 for OLZ (n = 283), 0.68 ± 0.27 for RIS (n = 231), and 0.46 ± 0.34 for typical antipsychotics (n = 205). Patients initiated on typical antipsychotics were 24.4% less adherent than patients initiated on QTP (p < 0.001).
Mean persistence (days) was 219.7 for QTP, 200.9 for OLZ, 194.8 for RIS, and 179.2 for typical antipsychotics. Kaplan-Meier survival curves for the typical antipsychotic group showed that hazards of therapy modification differed within 250 days of antipsychotic initiation compared with after 250 days of therapy. Extended Cox regression modeling indicated no significant differences between antipsychotics in hazards of therapy modification within 250 days of initiation. However, patients initiated on typical antipsychotics were 6.3 times more likely to modify therapy compared with those initiated on QTP after 250 days of antipsychotic therapy (p < 0.0001). CONCLUSIONS: Adherence and persistence were similar between atypical antipsychotic groups. The typical antipsychotic group, however, demonstrated lower adherence and a greater likelihood of modifying therapy than the quetiapine cohort.

PMH38
ADHERENCE LEVELS AND DIFFERENTIAL USE OF MENTAL HEALTH SERVICES IN THE TREATMENT OF SCHIZOPHRENIA Thomas NA1, Zhu B2, Ascher-Svanum H2, Faries D2
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OBJECTIVES: To compare annual mental health service utilization patterns by level of adherence with antipsychotic medication in the naturalistic treatment of schizophrenia. METHODS: Data were drawn from a large prospective naturalistic study of treatment for patients with schizophrenia in the U.S., conducted between July 1997 and September 2003. Detailed mental health resource utilization was systematically abstracted from medical records and augmented with patients’ self-report. Annual medication possession ratio (MPR) with any antipsychotic was calculated, and each participant was categorized into 1 of 3 medication possession ratio (MPR) with any antipsychotic was calculated, and each participant was categorized into 1 of 3 adherence groups: adherent (MPR > 80%, N = 1738), partially adherent (60% ≤ MPR ≤ 80%, N = 36), and non-adherent (MPR < 60%, N = 216). RESULTS: Adherent participants were least likely to have any psychiatric hospitalization and emergency room visits (p < 0.05). Compared to non-adherent, adherent participants were also significantly more likely to be engaged in outpatient treatment processes as evident by greater likelihood of participation in any psychosocial group intervention (p < 0.05) and in any medication management with psychiatrists (p < 0.05). CONCLUSIONS: Medication adherence levels are associated with differential use of psychiatric services. Adherence appears to be associated with lower risk of hospitalization and emergency room visits and greater engagement in the outpatient treatment processes.

PMH39
COMPARATIVE ANALYSIS OF DISCONTINUATION HAZARD FOR ATYPICAL ANTIPSYCHOTICS Obeidat NA1, Harrison DJ2, Naradzy JF2, Mullins CD1
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OBJECTIVES: Compare discontinuation patterns across atypical antipsychotic agents within the first year after initiating therapy among Medicaid patients with schizophrenia. METHODS: Adult Medicaid recipients diagnosed with schizophrenia and having atypical antipsychotic drug prescription claims between July 1, 2001 and September 30, 2003 were categorized into five groups of initial antipsychotic drug received: aripiprazole (n = 446); olanzapine (n = 1705); quetiapine (n = 1467); risperidone (n = 1580); and ziprasidone (n = 700). Discontinuation was measured using refill patterns, allowing 14-day gaps between expected refill dates, and compared across starting drug groups using Chi-Square tests. Multivariate Cox proportional hazards models then explored the simultaneous impact of age, gender, race, hospitalization in the 6 months prior to initial therapy, and other concurrent antipsychotic drug use when initiating therapy, in addition to being on any one of the five mutually exclusive drug groups, on discontinuation. Sensitivity analysis tested the robustness of results using longer allowable prescription gaps between refills, and examining multiple episodes of atypical antipsychotic use by using different definitions of the index date. RESULTS: Patients starting treatment on either aripiprazole, risperidone, or ziprasidone were not significantly different from olanzapine (HR 1.047, 0.973 and 0.990, respectively) with respect to discontinuation of therapy. Quetiapine was associated with significantly higher hazard of discontinuation (HR 1.130, p = 0.0044) compared to olanzapine. Other covariates associated with significantly lower discontinuation rates were being male (HR 0.899, p = 0.0008), older age (HR 0.997, p = 0.0348) and being on concurrent medication when initiating therapy (HR 0.225, p < 0.001). Having previous hospitalization was associated with significantly higher discontinuation rate (HR 1.276, p < 0.001). These results were robust across sensitivity analyses. CONCLUSIONS: Patients initiating on ziprasidone, aripiprazole, risperidone and olanzapine had similar discontinuation at one year. The higher hazard associated with quetiapine is consistent with the higher rate of discontinuation observed for quetiapine when compared to olanzapine in Phase 1 of the CATIE trial.

PMH40
ATYPICAL ANTIPSYCHOTIC COMPLIANCE AND PERSISTENCE AND ASSOCIATED HEALTH CARE UTILIZATION IN THE TREATMENT OF SCHIZOPHRENIA Sun SX1, Liu GG2, Zhao Z2
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OBJECTIVES: To determine the compliance and persistence to atypical antipsychotics in the treatment of schizophrenia patients and associated health care utilization. METHODS: The study sample was based on NC Medicaid claims database. Patients were included if they had a diagnosis of schizophrenia (ICD-9 295.3), received at least two antipsychotic prescriptions during the period after index date and were continuously enrolled in NC Medicaid Program during three month prior and one year post treatment periods. Medication possession ratio (MPR), persistence and medication use gap were used as compliance measures. Both descriptive and multivariate model were conducted. RESULTS: A total of 450 patients were included. Mean age was 42.3 years. 52.4% were men and 33.1% were blacks. Adherent (0.8 <= PR <= 1.0), non-adherent (MPR < 0.8) and over-adherent (MPR > 1.1) patients accounted for 34.8%, 45.3%, and 18.9% respectively. Approximately 42.4% of patients had medication use gap, and the average duration of continuous medication use was 229 days. Adherent patients had fewer hospital admissions and hospital days than nonadherent and overadherent patients (0.57 vs. 1.0 vs. 0.82 admissions; 5.2 vs. 10.0 vs. 5.9 days). Patients with gaps in medication use had more hospital admissions and hospital days than those without gaps (1.1 vs. 0.64 admissions; 10.4 vs. 5.3 days). In terms of the risk of hospitalization, nonadherent patients were more likely to be hospitalized than adherent ones (OD: 1.694, 95% CI: 1.019–2.816). Patients with gaps in medication use were more likely to be hospitalized (OD: 2.589, 95% CI: 1.633–4.106) and had 11 more hospital days than those without a gap (p = 0.0275). Patients who stayed on medication longer were less likely to be admitted to hospitals (OD: 0.998, 95% CI: 0.997–0.999). CONCLUSIONS: The results from this