hospitalisations and laboratory tests. This trial also reported relative safety and efficacy. Australian cost data were applied to the resource utilisation from the trial to estimate the overall treatment costs associated with each therapy. Study drug and concomitant medication prices were sourced from the Schedule of Pharmaceutical Benefits and E-MIMS, while national casemix costs were applied to hospitalisations. Rather than episodic costing, a mixture of fixed and marginal costs were used. Laboratory test prices were from the Medicare Benefits Schedule. **RESULTS:** The overall cost of therapy for olanzapine patients was AUS\$9340 (US\$6457), compared with A\$9589 (US\$6629) for lithium patients. Although the acquisition cost of olanzapine is greater than for lithium, the fewer (82 vs. 88) and shorter hospitalisations (15 vs. 19.7 days) associated with olanzapine relative to lithium therapy lead to this overall cost saving of AUS\$249 (US\$172). Olanzapine patients do not require laboratory tests to monitor serum lithium levels, which also contributes to the cost saving. In terms of efficacy, 8.8% (p = 0.055) fewer olanzapine patients relapsed compared with lithium patients. Additionally, 13.7% (p < 0.001) fewer olanzapine patients suffered manic relapse. Time to relapse analysis confirmed that benefits from olanzapine are maintained over a longer period than those of lithium. Hence, the probability of relapse diverges over time. When costs were varied in sensitivity analyses, olanzapine continued to be cost-effective. **CONCLUSIONS:** Olanzapine displays greater efficacy and is cost-saving compared to lithium. Hence, olanzapine represents a dominant therapeutic option. Sensitivity analysis indicated that even in extreme circumstances, olanzapine remains cost-effective.

PMH35

SERVICE UTILIZATION AND COSTS FOR BIPOLAR DEPRESSION

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OBJECTIVE: To examine mental health medical services utilization and costs for patients in the depressive phase of bipolar. **METHODS:** This retrospective study included a cohort of 1419 patients who had 3 consecutive years of data (majority between 1999 and 2001), received a diagnosis of bipolar depression (ICD codes), and utilized one of three types of medical services; room and board, medical/surgical, and ancillary services associated with a mental disorder diagnosis. Medical service utilization and costs were observed for a 1-year period post diagnosis index. **RESULTS:** Twenty-one percent of patients incurred hospitalization charges, averaged two admissions per year and accounted for 50% of medical service costs. Average annual medical service costs for patients who continue their initial treatment are \$1950. These cost more than triple (\$6570) for patients who incur three or more switches in a year. Additionally, the largest increase in medical service costs is from the initial treatment (\$1950) to the first switch (\$3364). Bipolar depressed patients who received no psychotropic medication incurred \$3903 of medical service costs. **CONCLUSION:** Patients with more "stabilized" treatment had lower medical service costs than those patients who experienced switches in pharmacologic treatment. Additionally, non-medicated bipolar depressed patients incur high annual costs to the managed care organization.

PMH36

THE COSTS OF POLY-PHARMACY, NON-DRUG TREATMENT, NUMBER OF DRUGS AND SWITCHING FOR BIPOLAR DISORDER

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OBJECTIVE: Prescribing patterns in bipolar disorder are complex and varied. The objective of this analysis was to identify how various patterns of treatment relate to direct costs. **METHODS:** The PharMetrics Integrated Outcomes Database of adjudicated medical and pharmaceutical claims for over 3 million patients from 11 U.S. health plans was utilized. 3,648 bipolar patients were identified based on the following criteria: two claims with ICD-9-CM diagnosis for bipolar disorder (296.0, 296.1, 296.4–296.8) that were not accompanied by a unipolar depression claim on the same day, age between 10 and 64, and 1 year of continuous eligibility prior to and following the initial bipolar diagnosis. Thirteen months of data were analyzed (1 month pre diagnosis, 12 months post diagnosis). **RESULTS:** Eighty-two percent of patients (2992) were treated with medication. For drug treated patients, on average, the total cost over the 13-month period is \$12,416 per patient. Of this amount, 65% of the costs (\$8018) are bipolar-related; with a 5:1 ratio of medical services related costs (\$6,691) to medication costs (\$1327). Patients initiating on poly-pharmacy incur higher total bipolar costs (\$10,137) than their cohorts who initiated on mono therapy (\$6,683). As expected, as the number of drugs used increases, total bipolar costs steadily rise with the average being \$3,883 for one drug, \$11,419 for four drugs and \$19,040 for 9 drugs. Additionally, as the number of treatment regimes per patient increases, so do costs. Total bipolar costs for patients having only one treatment regime average \$3,528, whereas patients experiencing 3 switches (four regimes) average \$12,553. **CONCLUSION:** Many factors are related to the cost of treating bipolar patients. Further investigation needs to be conducted in order to understand which of these factors might be cost containment opportunities.

PMH37

COST CONSEQUENCE ASSOCIATED WITH DIFFERENT INITIAL MOOD STABILIZERS FOR NEWLY TREATED PATIENTS WITH BIPOLAR DISORDERS

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OBJECTIVE: To assess cost consequences associated with different initial therapies and comorbidity factors for patients with bipolar disorders in a managed care Medicaid population. **METHODS:** Using a multi-state claims database from January 1998 to December 2002, 3676 newly treated bipolar patients were selected if they had not been treated during the preceding 3-months and had a minimum 3-month follow-up period and at least two bipolar-related diagnoses and prescriptions. The cost consequence measured by total charge was further divided into bipolar-related and or not. Using Poisson regression analysis, costs were regressed on patient's age, gender, initial therapy, major psychiatric disorders, and general clinical comorbidities. **RESULTS:** The cohort patients had 87.9% bipolar I, 66.6% female, average age of 27.2 (SD 13.8). Initial therapy involved atypical antipsychotics monotherapy (12.4%), lithium/anticonvulsants (22.6%), combination of atypical and lithium or anticonvulsant (31.1%), other combination of typical antipsychotics and antidepressants (33.9%). Bipolar-related cost was relatively stable overtime with monthly average of \$384 (SD 845), and significantly associated with bipolar I (Odds Ratio = 1.30; 95% CI 1.056–1.63), major depression (OR 1.74; 1.51–2.02), substance abuse (OR 1.67; 1.44–1.94), anxiety disorder (OR 1.18; 1.04–1.34), impulse control disorder (OR 1.40; 1.17–1.67), personality disorder (OR 1.46; 1.20–1.76), eating disorder (OR 1.93; 1.28–2.76). The total health care cost (bipolar and non-

bipolar) increased overtime with monthly average of $1432 (SD 2551). In addition, total cost was also significantly associated with general comorbidities like diabetes mellitus (OR = 1.34; 95% CI 1.14–1.56), cancer (OR 1.73; 1.07–2.63), hypertension (OR 1.63; 1.41–1.88), COPD (OR 1.41; 1.35–1.96), cerebravascular disease (OR 1.94; 1.59–2.35), and ischemic heart disease (OR 1.89; 1.53–2.34). **CONCLUSION:** Bipolar related cost is associated with bipolar I disorder, psychological disorders, and use of antipsychotics therapy. In addition, the total health care cost is significantly associated with general clinical comorbidities.

EPILEPSY PATIENTS WITH ATTENTION-DEFICIT/HYPERACTIVITY DISORDER: PREVALENCE AND COST OF CARE

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OBJECTIVE: The objective is to quantify the epidemiological patterns and medical cost of patients treated for both Attention-Deficit/Hyperactivity Disorder (ADHD) and epilepsy (ADHD/epilepsy). **METHODS:** We analyzed a de-identified administrative claims database (approximately 600,000 lives under the age of 65, 1998 to 2001) for commercially insured populations to assess the treated prevalence rate as well as the incremental cost of epilepsy among ADHD patients 18 years old or younger. These measures were computed for the ADHD patients treated for epilepsy (n = 64) compared to a control group of epilepsy patients without ADHD ("non-ADHD") of the same age (n = 107) in a random sample. We investigated the validity of the results using a similar, supplemental database. **RESULTS:** The treated prevalence rate of epilepsy is 1.5% among ADHD patients versus 0.5% among non-ADHD patients. The odds ratio of epilepsy treatment given an ADHD diagnosis is 3.2. ADHD/epilepsy patients are treated for mental disorders 3.6 times more than non-ADHD patients (41.0% vs. 11.4% of patients, respectively, p < 0.0001). The average annual costs are $4365 for ADHD/epilepsy patients and $3568 for controls; the difference is not statistically significant. These costs were primarily for non-mental health diagnoses. However, the cost of mental health treatment of ADHD/epilepsy patients was 15 times higher than that for non-ADHD patients (p = 0.01). Patterns of results were similar in the second database. However, because this study relied on insurance claims data, the findings apply to clinical practice as opposed to tightly diagnosed research samples. **CONCLUSIONS:** Epilepsy is more common among ADHD patients than the general population. ADHD/epilepsy patients use more health care services and cost more than epilepsy-only patients.

WITHDRAWN
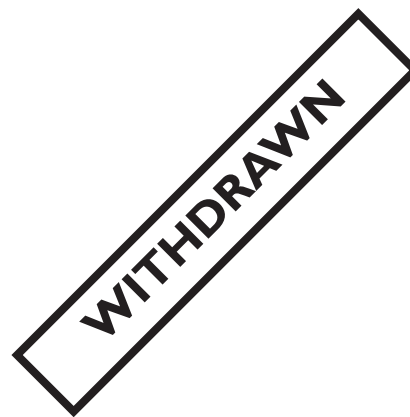
COST-EFFECTIVENESS OF RITALIN™ VERSUS ADDERALL™ FOR FIRST-LINE TREATMENT OF ATTENTION DEFICIT/HYPERACTIVITY DISORDER (ADHD) IN CHILDREN

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OBJECTIVE: Although it is widely accepted that stimulants are used as the treatment of choice, many decision makers do not have appropriate information regarding an optimal first-line agent in treating this patient population. We evaluated the cost-effectiveness in choosing methylphenidate (Ritalin™) or amphetamine/ dextroamphetamine (AMP/DEX) mixed salts (Adderall™) as a first-line agent in the treatment of ADHD. **METHODS:** Decision-tree analysis was performed using weighted utility and weighted cost outcomes after basing decisions on three treatment arms: Initiation with methylphenidate, initiation with AMP/DEX, or no treatment. Data inputs such as efficacy rates, side effects, compliance rates, and school administration rates were extracted from a literature review. A societal perspective was used to estimate outcomes in terms of incremental cost and incremental utilities over the time horizon of one year. **RESULTS:** In the base case analysis, AMP/DEX dominates both methylphenidate and using no treatment. The ICE ratio for AMP/DEX versus no treatment is $21,931/ QALY. Total costs for the AMP/DEX arm were $2999 with a QALY score of 0.889. The methylphenidate arm reports total costs of $3043 and a QALY score of 0.839, and those who received no treatment achieved total costs of $993 and a QALY score of 0.798. Sensitivity analysis shows that major drivers of this conclusion