

## PMH26

**COST-EFFECTIVENESS OF ATYPICAL ANTIPSYCHOTICS IN ACUTE BIPOLAR MANIA**McGarry LJ<sup>1</sup>, Bird A<sup>2</sup>, Thompson D<sup>1</sup>, Wang P<sup>3</sup>, Martin SC<sup>4</sup>, Weinstein MC<sup>2</sup><sup>1</sup>Innovus Research, Inc, Medford, MA, USA; <sup>2</sup>Harvard School of Public Health & Innovus Research, Inc, Boston, MA, USA;<sup>3</sup>Brigham & Women's Hospital, Boston, MA, USA; <sup>4</sup>Johnson & Johnson Pharmaceutical Services, L.L.C, Raritan, NJ, USA

**OBJECTIVES:** Atypical antipsychotics (AA) (e.g., olanzapine, risperidone) in combination with mood stabilizers (MS) (e.g., lithium, valproate) have demonstrated better treatment response in acute bipolar mania compared with MS monotherapy, and may be better tolerated than conventional antipsychotics (e.g., haloperidol). However, their acquisition costs are relatively high. The objective of this study was to assess the cost-effectiveness of AA in combination with MS in acute bipolar mania. **METHODS:** We developed a state-transition Markov model to estimate the cost-effectiveness of combination therapy with AA + MS in acute bipolar mania. The inception cohort consists of patients hospitalized with a new episode of acute mania. Each patient may receive: olanzapine + MS, risperidone + MS, haloperidol + MS, lithium monotherapy, or valproate monotherapy as initial therapy. Over subsequent 3-week cycles, patients initiated on each therapy may remain manic, become depressed, die from suicide or other causes, or stabilize and enter the continuation/maintenance phase of treatment. While in each health state, patients accumulate medical-care costs (for drugs, hospitalization, etc.) and utility associated with that state. The model tracks patients' state transitions over 24 weeks and tabulates cumulative costs and utilities over the patients' lifetime (discounted at an annual rate of 3%) to estimate incremental cost per quality-adjusted life-year (QALY) gained. Transition probabilities between states were estimated from published literature; costs were derived from standard sources; utilities were assessed using the standard gamble method. **RESULTS:** Haloperidol + MS is the least costly therapy option, while risperidone + MS is the most effective. Risperidone + MS costs an additional \$3300, and olanzapine + MS an additional \$8700, per QALY gained versus haloperidol + MS. Both AA + MS combinations were cost saving versus monotherapy with lithium or valproate. Results were sensitive to drug costs, drug efficacy, suicide rate, and rate of tardive dyskinesia. **CONCLUSIONS:** Based on current evidence, combination therapy with AA + MS is cost-effective versus haloperidol + MS in the treatment of acute mania, and dominates MS monotherapy.

## PMH27

**EFFECTS OF PATIENTS WITH BIPOLAR, SCHIZOPHRENIC, AND MAJOR DEPRESSIVE DISORDERS ON THE MENTAL AND OTHER HEALTHCARE EXPENSES OF FAMILY MEMBERS**Gianfrancesco FD<sup>1</sup>, Yu E<sup>2</sup>, White RE<sup>2</sup>, Wang RH<sup>1</sup><sup>1</sup>HECON Associates, Inc, Montgomery Village, MD, USA;<sup>2</sup>AstraZeneca Pharmaceuticals, Wilmington, DE, USA

**OBJECTIVE:** To measure effects on mental and other healthcare expenses of family members of patients with bipolar disorder, schizophrenia, and major depression. **METHODS:** Using data from a 2-million member health plan, the authors estimated and compared expenses for mental and other healthcare services per person per month (PPM) of family members of patients with bipolar disorder, schizophrenia, and major depressive disorder with those of controls. Ordinary least squares and logistic regression models were used to estimate differences and identify characteristics affecting healthcare expenses within each group. **RESULTS:** Living with patients with bipolar disorder, schizophrenia, or major depression increased both mental and other healthcare expenses for family members, compared with controls. Mental and other healthcare expenses increased as follows: bipolar disorder, \$8.85/PPM (213%;  $P < 0.0001$ ) and \$10.65/PPM (7.4%;  $P < 0.0001$ ); schizophrenia, \$4.03/PPM (81%;  $P < 0.0001$ ) and \$5.96/PPM (4.2%;  $P < 0.005$ ); major depression, \$8.24/PPM (219%;  $P < 0.0001$ ) and \$9.46 (6.5%;  $P < 0.0001$ ). Within all three groups, men were less likely to use mental healthcare services ( $P < 0.002$ ), and the likelihood of mental healthcare use increased with illness duration ( $P < 0.005$ ). Within the bipolar and major depression groups, parents and spouses of patients were more likely to use mental healthcare services than children and siblings ( $P < 0.0001$ ), and the likelihood of mental healthcare use increased with illness severity ( $P < 0.0001$ ). Within all three groups, other healthcare expenses were higher for parents and spouses of patients ( $P < 0.0001$ – $P < 0.01$ ) and with longer illness duration ( $P < 0.0001$ – $P < 0.0005$ ); men had lower expenses ( $P < 0.0001$ – $P < 0.05$ ). Within the bipolar and major depression groups, other healthcare expenses were higher for family members of older patients ( $P < 0.0001$ – $P < 0.003$ ). **CONCLUSION:** Living with a person with serious mental illness significantly increases healthcare expenses of family members, especially for mental healthcare. Family members of patients with bipolar and major depressive disorders have higher healthcare expenses than those of patients with schizophrenia among commercially insured persons.

## PMH28

**THE IMPACT OF UNRECOGNIZED BIPOLAR DISORDERS FOR PATIENTS TREATED WITH ANTIDEPRESSANT MEDICATIONS**Thiebaud P<sup>1</sup>, McCombs JS<sup>1</sup>, Shi L<sup>2</sup><sup>1</sup>University of Southern California, Los Angeles, CA, USA; <sup>2</sup>Eli Lilly and Company, Indianapolis, IN, USA