A COST-EFFECTIVENESS ANALYSIS OF ESCITALOPRAM AND SERTRALINE IN THE TREATMENT OF MAJOR DEPRESSIVE DISORDER

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**OBJECTIVE:** To compare the cost-effectiveness of escitalopram and sertraline for the treatment of depression based upon a head-to-head clinical study and published literature. **METHODS:** A decision analytical model was created based upon data obtained from an eight-week clinical study evaluating escitalopram and sertraline for the treatment of major depressive disorder. The primary outcome of the clinical study was improvement in depressive symptoms as measured by the Montgomery-Asberg Depression Rating Scale. The model was constructed from a payer's perspective with a six-month time horizon. The clinical trial allowed dose titration for sertraline in 50mg increments. The primary outcome for the model was cost per quality-adjusted life year (QALY). The decision analysis took into account the rate of adverse drug reactions by drug and dose. QALY estimates were assigned to various health states and included depression, adverse events, and treatment failure. Medication costs were obtained from an Internet pharmacy. Costs of adverse events and treatment failure were obtained from published studies. Estimated physician costs were obtained from US Medicare fee schedules. **RESULTS:** The estimated six-month cost was $952 for escitalopram and $1372 for sertraline. The estimated QALYs were 0.403 for escitalopram and 0.393 for sertraline. The cost/QALY for the two agents was $2362 and $3494, respectively. Threshold analyses were conducted to determine variables that influenced the results. The most important variable in the model was the cost of treatment failures. In the primary analysis, the cost of treatment failures was $8141. When this cost was reduced to $5000, the cost/QALY was $1993 and $2808 for escitalopram and sertraline, respectively. **CONCLUSIONS:** The results suggest that escitalopram had a lower cost and resulted in more QALYs. This difference was due mainly to a lower ADR rates for escitalopram and fewer titrations with escitalopram.

OUTCOME ANALYSIS OF A MULTI-LEVEL INTERVENTION PROGRAM TO IMPROVE ANTIDEPRESSANT MEDICATION ADHERENCE

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Despite the importance of medication adherence in the management of depression, adherence rates for antidepressant therapy are poor. Failure to adhere to pharmaceutical therapy leads to poor clinical outcomes and increased health care costs. **OBJECTIVE:** To evaluate the impact of an interventional program on antidepressant medication adherence. **METHODS:** This was a prospective interventional program with retrospective adherence study using 24-month pharmacy claims database. Medication adherence measures included length of therapy, median gap, persistence over time, and process ratio were obtained prior to and at 18 months post implementation of interventions. Physician educational interventions included on-site provider education, review of The Agency for Healthcare Research and Quality (AHRQ) guidelines for major depression, newsletter, and case management. Patient interventions included case managers followed up with non-compliant patients by phone for oral counseling, newsletter, incentive programs, and reminder postcards. **RESULTS:** A total of 4021 patients were included in the study. Significant improvements were observed at post intervention for all adherence parameters. The average length of therapy at outcome measure was 165 days compared to 131 days at baseline. Persistence over time showed 72% of patients completed their acute phase therapy (84 days) compares to 60% at baseline (p < 0.001) and 55% of patients continued their continuation therapy (180 days) compared to 46% at baseline (p < 0.001). The process ratio over time at 180 days was 0.8, an improvement of 24% from the baseline. **CONCLUSIONS:** Results of our analysis indicated significant improvements in
antidepressant medication adherence. The improvements seen in the antidepressant medication adherence improvement initiatives can be attributed to the strength of the interventional program. Although results of our study are encouraging, expanded effort is needed to further improve the persistence rate at 180 days.

**PMH31**

THE RELATIVE PERFORMANCE OF NEWER ANTIDEPRESSANTS IN A MEDICAID POPULATION McCombs JS1, Park J1, Bron MS2  
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OBJECTIVES: Assess the relative performance of new antidepressants in terms of compliance, drug switching and cost. METHODS: A total of 246,116 episodes of antidepressant therapy were abstracted from the fee-for-service paid claims file of the California Medicaid (Medi-Cal) program for year 1999–2002. Episodes of treatment using sertraline, paroxetine, fluoxetine, citalopram, bupropion or venlafaxine were selected for study. Data for each episode cover six-months prior and 12 months post-treatment. RESULTS: Most episodes of antidepressant therapy are for patients who restarted therapy using the same medication (33.2%) or on a second antidepressant (18.9%), followed by augmentation episodes (14.8%) and switching episodes with no break in treatment (13.6%). Antidepressants open formulary access (paroxetine and fluoxetine) are more frequently used in restarting episodes using the same medication. Patients who restart therapy display better adherence and lower switching rates than patients who switch or augment therapy, thus biasing upward the overall treatment compliance performance of open-access antidepressants. Unadjusted data for restart and delay switching episodes suggest that patients treated with sertraline and venlafaxine achieve longer duration of therapy than patients treated other drugs with other antidepressants. Differences are relatively minor across all of the antidepressants studied with the exception of bupropion. CONCLUSIONS: Unadjusted results indicate little difference in patient outcomes across alternative antidepressants. However, physicians may be selectively prescribing drugs to those sub-populations where each drug may have a clinical advantage. For future research, propensity scoring methods will be used to investigate if clinicians have been successful in prescribing alternative medications for those sub-populations in which each product achieves superior outcomes.

**PMH32**

APPROPRIATENESS AND VARIATION IN DRUG UTILIZATION ACROSS PATIENTS WITH DEPRESSION Long S1, Robinson R2, Chang S3, Able S4, Baser O5, Swindle R6  
1Medstat, Inc, Hampden, ME, USA; 2Eli Lilly and Company, Indianapolis, IN, USA; 3Medstat, Inc, Washington, DC, USA; 4Medstat, Inc, Ann Arbor, MI, USA; 5Lilly Research Laboratories, Indianapolis, IN, USA

OBJECTIVES: Retrospective claims were assessed to determine the marginal effect of compliance on expenditures. CONCLUSIONS: Compliance with NCQA guidelines was less than optimal and associated with initiating drug type, comorbidities, gender, age, and geographic region. Improved management of these patients could result in reduced illness burden.

**PMH33**

DRUG UTILIZATION AND MARKET-SHARE COMPETITION AMONG ANTIDEPRESSANT MEDICATIONS IN US MEDICAID PROGRAMS Guo JJ1, Chen Y, Jing Y, Patel NC  
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OBJECTIVES: Antidepressant medications are frequently used for the treatment of various psychiatric disorders, including depressive and anxiety disorders. Expenditure for antidepressants in 2001 was ranked as number one among all therapeutic categories in US. The objectives of this study were to examine antidepressant utilization trends and to understand market-share competition between brand-name and generic drugs. METHODS: Three major classes of antidepressants are selective serotonin reuptake inhibitors (SSRIs), tricyclic antidepressants (TCAs), and other antidepressants. Using the Center for Medicaid/Medicare Services (CMS) prescription drug database, we constructed quarterly per-prescription reimbursement figures for each brand-name and generic drug from 1991 to 2004. The market-share for each drug or class was calculated as the proportion of total number of antidepressant prescriptions. RESULTS: Total expenditure of antidepressants increased sharply from $18 million per quarter in 1991 to $350 million per quarter from 2001–2004. The proportion of total expenditure for brand-name drugs increased from 70% in 1991 to 94% in 2001. Brand-name market-share increased dramatically from 27% in 1991 to 50% in the second quarter of 1997, and then to 63% in the first quarter of 2001. In the third quarter of 2001, brand-name market-share dropped to 52%. SSRIs (Prozac®, Zoloft®, Luvox®, Paxil®) dominated the brand-name market. The market share for Prozac® decreased sharply from 23% in the third quarter of 2000 to 2% in the first quarter of 2004, due to its generic entry. Celexa’s® market share decreased from 20% in the third quarter of 2002 to 15% in the first quarter of 2004, due to the market entry of Lexapro®. Generic antidepressant market-shares decreased over time, particularly those of TCAs. CONCLUSION: Large increases in antidepressant drug expenditures paralleled increases in brand-name market-share. Com-