IMPROVEMENT OF FATIGUE IN PATIENTS WITH MAJOR DEPRESSIVE DISORDER TREATED WITH VENLAFAXINE, SERTRALINE, OR PLACEBO

Zhang HF, Khanderi R
Wyeth Research, Collegeville, PA, USA

OBJECTIVE: This analysis was designed to compare improvement in symptoms of fatigue in depressed patients treated with venlafaxine extended release (XR), sertraline, or placebo.

METHODS: Data were pooled from two identical ten-week, multicenter, randomized, double-blind, placebo-controlled studies of flexible-dose venlafaxine XR (37.5–300 mg/day) and sertraline (50–200 mg/day) in the treatment of DSM-IV major depressive disorder (N = 1352). The Hamilton Rating Scale for Depression (HAM-D) energy subscale (sum of items one, seven, eight, and 14) and the Montgomery-Asberg Depression Rating Scale (MADRS) lassitude item were used to assess fatigue symptoms. Improvement was measured as reduction from baseline score at week ten using ANCOVA method controlling for center and baseline values. Overall trend of weekly scores during treatment was measured using repeated measures mixed model. The last-observation-carried-forward (LOCF) approach was used to handle missing data.

RESULTS: On the MADRS lassitude item venlafaxine XR was associated with significantly greater reduction from baseline (P < 0.0001) and significantly better weekly trend (P < 0.0001) versus placebo. Venlafaxine XR was also associated with significantly greater reduction from baseline on the HAM-D energy subscale (P = 0.0007) and better overall weekly trend (P = 0.0003) relative to placebo. Sertraline/placebo differences were also statistically significant.

CONCLUSION: Venlafaxine XR and sertraline treatment were associated with significant improvement in fatigue symptoms in depressed patients based on two independent measures.

COST AND UTILIZATION DIFFERENCES AMONG CARDIAC PATIENTS TREATED FOR DEPRESSION WITH ZOLOFT VERSUS NO PHARMACEUTICAL TREATMENT

Bron MS, Mark TL, Orsini LS
1Pfizer, New York, NY, USA; 2Medstat, Washington, DC, USA; 3MedStat, Inc, Cambridge, MA, USA

OBJECTIVE: To determine the differences in health care expenditures among patients hospitalized with acute myocardial infarction or unstable angina that were subsequently treated for depression associated with their cardiac event with either sertraline or no antidepressant therapy.

METHODS: Patients 45 or older, 12 months of continuous enrollment, evidence of prescription drug claims, a hospitalization for either acute myocardial infarction (ICD-9-CM code 411.1x) or unstable angina (410.00–410.92) and evidence of depression treatment (diagnosis or pharmaceutical) were identified in Medstat’s MarketScan Databases. Claims incurred between January 1, 1999 and December 31, 2003 were utilized. Patients without any antidepressant use 30 days prior or 60 days after their cardiac event and receiving a diagnosis of depression in the 180 days before or after their cardiac event comprised the diagnosis only group. Patients with a 30 day clean period of any antidepressant prior to their cardiac event and incurring a script for sertraline (but no other antidepressant) in the 60 days after their cardiac event comprised the sertraline group. Patients in the two groups were matched using propensity score methods.

RESULTS: A total of 257 patients in each group were identified. The mean total per person expenditure for acute MI admission was significantly higher for diagnosis only patients ($3184) versus sertraline patients ($1063) p = 0.0098. The mean total per person expenditure for psychiatric related outpatient visits was also higher in the diagnosis only group: $326 versus $69 p < 0.0001. There were no other significant differences in expenditures.

CONCLUSION: Patients treated for depression after a hospitalization for a major coronary event who receive sertraline have fewer AMI admissions and costs for AMI admissions as well as fewer psychiatric related outpatient visits and related costs in the 24 weeks following their initial cardiac event.

COST-EFFECTIVENESS ANALYSIS OF ESCITALOPRAM IN THE TREATMENT OF MAJOR DEPRESSIVE DISORDER IN TURKEY

Hemels ME1, Karamustafalıoğlu O2, Ozmen E3, Dilsad S4, Mene S5
1H. Lundbeck A/S, Paris, Ile de France, France; 2Etfal Hospital, Istanbul, Sisli, Turkey; 3Lundbeck Ilaç Ticaret Limited, Istanbul, Ilaç, Turkey; 4Marmara University, Istanbul, Turkey

OBJECTIVES: To compare the cost-effectiveness of escitalopram with generic citalopram and venlafaxine in the treatment of Major Depressive Disorder (MDD) in Turkey.

METHODS: A decision analytic model with a six-month horizon was adapted to the Turkish setting. All patients (aged ≥ 18 years) were treated by a psychiatrist over a period of six months. Model inputs included drug-specific probabilities from head-to-head trial data, literature, and expert opinion. A national survey was conducted among psychiatrists (n = 90; response rate = 96.7%) to obtain patterns of clinical management, resource utilization and lost productivity data (all weighted by practice size). The main outcome measure was success (i.e., remission defined as Montgomery-Åsberg Depression Rating Scale (MADRS) score ≤12) and costs (in US$ 2004) of treatment (i.e., costs of drugs and medical care). The analysis was performed from the governmental and societal perspectives. Human capital approach was used to estimate the cost of lost productivity using the minimal industrial wage in Turkey.

RESULTS: Treatment with escitalopram yielded lower expected costs and greater effectiveness compared with citalopram. The expected success rate was higher for escitalopram [63.2% (CI95 61.1%–65.3%)] compared with generic citalopram [57.6% (CI95 55.3%–59.9%)]. From the governmental perspective, total expected costs were US$297 (US$282–US$313) for escitalopram and US$305 (US$288–US$322) for generic citalopram. From the societal perspective the costs per patient were US$678 (US$653–US$705) for escitalopram and US$709 (US$682–US$736) for generic citalopram. For venlafaxine, a similar success rate compared with escitalopram but higher total costs were found from both the governmental (i.e., 23.5%) and societal (i.e., 9.3%) perspectives. Multivariate sensitivity analyses on unit costs and probabilities demonstrated the robustness of the results.

CONCLUSION: Escitalopram is a cost-effective alternative compared to (generic) citalopram and a cost saving alternative compared with venlafaxine in the treatment of MDD in Turkey.
tart role in treating that disorder in primary care. We demonstrate the cost-effectiveness of Escitalopram for Germany measured by successfully treated patients. METHODS: A markov-model over a horizon of 70 days with three markov-stages (remission, partial response, no response) was constructed. Due to the fact that the perspective of the physician was taken, only costs for medication have been considered. In order to include therapeutic decisions of physicians in a naturalistic matter, a survey of 190 GPs and 60 specialists has been conducted. RESULTS: Escitalopram has a 30% (GP: 113 vs. 144 €/successfully treated patient, specialist: 123 vs. 163 €/successfully treated patient) more favourable cost-effectiveness ratio compared with Venlafaxin XR. Depending on the setting (GP/ Specialist) the incremental cost-effectiveness ratio is considered to be 6800–7400€. The lower costs in the GPs model are due to referrals to specialists, since from the GPs perspective no further costs occur. CONCLUSIONS: Escitalopram is a cost-effective alternative to Venlafaxin XR for the treatment of MDD in the German setting.

A COST-EFFECTIVENESS ANALYSIS OF ESCITALOPRAM AND SERTRALINE IN THE TREATMENT OF MAJOR DEPRESSIVE DISORDER
Armstrong EP, Skrepanek GH, Malone DC, Erder H
1University of Arizona College of Pharmacy, Tucson, AZ, USA; 2Forest Research Institute, Jersey City, NJ, USA

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.

THE EFFECT OF RAISING THREE TIER COPAYMENTS ON SSRI COMPLIANCE RATES
Bron MS, Mark TL
1Pfizer; New York, NY, USA; 2Medstat, Washington, DC, USA

OBJECTIVES: 1) To characterize design of drug benefits of SSRI antidepressants in health plans offered by employers in the United States; and 2) To determine the effect of raising copayments on compliance rates of SSRI antidepressants. METHODS: Data comprised benefit information and claims from Medstat’s MarketScan database for 2000-2003. Benefit information were compiled from approximately 135 different plans. Any patient who filled a prescription SSRI antidepressants in 2000 and was continuously enrolled through 2001 was identified. A difference in difference approach was used to examine the change in the days supplied and number of claims filled for an employer that raised their three tiered co-payments as compared to an employer that kept constant one tier copayment rates. RESULTS: Three tier copayment structures were increasingly common among employers. Most SSRI's fall in tier two although some of the newer SSRIs are commonly found in tier three. The average copayment for tier 1 increased from $5.40 to $7.40. The average copayment for tier 2 increased from $13.60 to $16.80. The average copayment for tier 3 increased from $25.40 to $31.20. When the study employer raised their co-payments by 50%, they experienced a 25% decline in the number of prescriptions per person filled (from 5.2 to 3.9 prescriptions) from 2000 to 2001, while the control employer demonstrated a 20% decline (from 6.0 to 4.8) in the number of prescriptions filled. Days supplied fell by 41.3 days or 24% in the employer that raised copayments and by 36.3 days or 17% in the control employer. CONCLUSIONS: Benefit structure and co-pays have trended towards 3-tier plans with increasing copayments. As such, increasing copayments may have a negative effect on compliance and possibly outcomes.

OUTCOME ANALYSIS OF A MULTI-LEVEL INTERVENTION PROGRAM TO IMPROVE ANTIDEPRESSANT MEDICATION ADHERENCE
Alison L, Wong SL
Healthfirst, New York, NY, USA; Pfizer Inc, Syosset, NY, USA

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 procession 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) compared 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 procession 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