INPATIENT MEDICATION UTILIZATION AND COSTS OF RISPERIDONE, OLANZAPINE AND QUETIAPINE: A RETROSPECTIVE CHART ABSTRACTION STUDY

Neighbors D1, Irish W1, Lopez R1, Degen K2, Swann A3, Grogg A4, Myrie L1, Bell T1, Young AL1, Girts T1, Pottharst R1

1RTI Health Solutions, Research Triangle Park, NC, USA; 2Middlesex Hospital, Middletown, CT, USA; 3The University of Texas Health Science Center at Houston, Houston, TX, USA; 4Janssen Pharmaceutica, Titusville, NJ, USA

OBJECTIVES: The objectives of this study were 1) to compare average total daily study drug cost of risperidone (n = 120), olanzapine (n = 153), and quetiapine (n = 54) used as treatment for schizophrenia or schizoaffective disorder during an inpatient hospitalization, and 2) to compare medication utilization.

METHODS: Retrospective data on inpatient drug utilization were collected on 327 patients at three acute inpatient mental health facilities through 60 days following initiation of study drug. All patients with an available psychiatric history had at least one previous psychiatric hospitalization. A propensity scoring method, modified for three treatment groups, was used to adjust for treatment selection bias. Factors which predicted treatment selection for all study drugs, for which adjustments were made, included age, gender, race, and facility.

RESULTS: The average daily study drug cost was $4.35 less for risperidone than olanzapine (95% CI $5.84, $2.86), and $1.41 less for risperidone than quetiapine (95% CI $3.89, $0.81). Between groups, there were no statistically significant differences in length of stay. Average daily dose for patients on study drug at time of discharge was 4.85 mg (SD 2.29) for risperidone, 14.22 mg (SD 5.44) for olanzapine, and 368.64 mg (SD 230.52) for quetiapine. Total daily drug cost, including study drug and concomitant medications, for patients on study drug at time of discharge was $12.07 (SD 6.53) for risperidone, $16.33 (SD 6.56) for olanzapine, and $20.22 (SD 42.42) for quetiapine.

CONCLUSIONS: Using a study design and analysis aimed at minimizing treatment selection bias, risperidone patients had a lower daily inpatient study drug cost than olanzapine (statistically significant) and quetiapine (not statistically significant) patients. In addition, differences in concomitant medication cost and utilization were present among treatment groups.
70). Acute and maintenance phase costs were estimated by assigning prices (in year 2000 dollars) from a standard list to units of applicable medical services. Using a trimmed-means (25% on each tail of the cost distribution) comparison to overcome the skewness in the distribution of cost data, the medication treatment groups were compared.

RESULTS: Overall per-patient costs were not significantly different between the olanzapine-treated patients (15.9 ± 4.5 mg/day) and the divalproex-treated patients (1596.4 ± 492.7 mg/day). However, olanzapine treatment was associated with significantly higher medication costs (p < .001), but significantly lower outpatient (p < .001) and overall inpatient (p < .05) costs over the course of treatment. Outpatient costs were higher in divalproex-treated patients due to higher emergency room and other outpatient visits.

CONCLUSIONS: These findings suggest that differences in medication acquisition cost are offset by lower costs for other clinical services during olanzapine treatment. Further research is needed to determine the extent to which the present findings can be generalized to practice settings outside of the clinical trial context.

PMH23

THE COST CONSEQUENCES OF CONTINUED TREATMENT-RESISTANCE IN DEPRESSION

Ozminkowski RJ1, Russell JM2, Crown WH3, Hawkins K1, Osnini L2, Finkelstein S4, Berndt E4
1The MEDSTAT Group, Inc, Ann Arbor, MI, USA; 2Cyberonics, Inc, Houston, TX, USA; 3The MEDSTAT Group, Cambridge, MA, USA; 4Massachusetts Institute of Technology, Cambridge, MA, USA

OBJECTIVE: To profile treatment-resistant depression (TRD) patients healthcare costs and medical care patterns as their illness progresses.

METHODS: The MEDSTAT MarketScan® Database for 1995–2000 was used. Patients with a depression diagnosis, suicide attempt, or those treated with electroconvulsive therapy were considered. TRD patients were those who either switched or augmented their initial four-week (minimum) antidepressant prescription with at least one more antidepressant prescribed for at least four weeks. Demographic, treatment, and cost profiles were constructed for periods covered by each subsequent antidepressant medication switch or augmentation. Total medical expenditures per day (year-2000 dollars) were calculated and compared for periods between the index date (entry into study) and each subsequent medication switch or augmentation. Negative binomial count regression models were used to assess the impact of factors on number of medication switches or augmentations occurring during the study period.

RESULTS: The sample included 7,737 TRD patients; 72% female, 60% employees and 39% in managed care plans. The mean number of medication switches or augmentations following the index prescription was 2.4. Average total healthcare expenditures increased 102% from $563 per month at the initial antidepressant switch date to $1140 per month after six additional medication switches or augmentations. The number of medication switches or augmentations was significantly influenced by the following factors: existence of comorbid mental health problems, type of antidepressant prescribed at the index date, type of depression diagnosis, treatment under a managed care plan, single or family insurance coverage, and length of time patients were followed.

CONCLUSIONS: Most treatment-resistant patients had multiple medication switches or augmentations. Average monthly expenditures more than doubled as the TRD illness progressed through six additional medication switches or augmentations. A better understanding of factors associated with the number of medication switches may lead to promising interventions improving care for patients with treatment-resistant depression.

PMH24

MODELING THE ECONOMIC IMPACT OF GALANTAMINE TREATMENT IN PATIENTS WITH ALZHEIMER’S DISEASE IN DIFFERENT HEALTH CARE SYSTEMS

Caro J1, Salas M1, Ward A1, Getsios D2, Migliaccio-Walle K1, Garfield F1
1Caro Research Institute, Concord, MA, USA; 2Caro Research Institute, Dorval, QC, Canada

OBJECTIVES: To estimate the long-term health and economic impact of treating patients with Alzheimer disease with galantamine (Reminyl) in different countries.

METHODS: A pharmacoeconomic model, The Assessment of Health Economics of Alzheimer’s Disease (AHEAD), was used to predict the time until Alzheimer’s disease patients require full-time care and the associated costs. Full-time care was the consistent requirement for a significant amount of care giving and supervision each day. Efficacy data were obtained from three clinical trials comparing galantamine with placebo. For each country, local data were obtained on service use, balance of care between community and institutions, and relevant unit costs. Analyses were completed for The Netherlands, Sweden, Finland, Germany, UK, Canada and New Zealand. Forecasts were made for up to ten years. Costs are reported in 2001 currencies and determined from a perspective somewhat broader than that of a comprehensive payer, including the cost to a national health service as well as other relevant stakeholders such as providers of social care services. Both health benefits and costs were discounted at 3%. Sensitivity analyses were carried out on key input parameters and combinations of these parameters.

RESULTS: In each country, full-time care was estimated to account for at least two-thirds of the cost of caring for patients over ten years, and more than 60% of this cost was from providing institutional care. Galantamine is predicted to reduce the duration of full-time care by