QUANTIFYING COST OUTCOMES DIFFERENTIATED BY GENDER AND AGE IN THE TREATMENT OF MIGRAINE HEADACHE USING STEP VS STRATIFIED CARE

OBJECTIVES: The objective of this study was to estimate the cost savings of STEP vs. Stratified (STRAT) migraine headache care differentiated by age and gender. METHOD: A decision tree was used to model the migraine headache care pathways for a hypothetical cohort of 1000 patients. A Monte Carlo microsimulation-based model was used to capture utilization, such as medication (drug) costs, physician costs, cost of caregiver time, and productivity loss. Clinical information was derived from the Comparative Effectiveness Research (CER) and literature. The model was calibrated using third-party payer data. RESULTS: The Stratified therapy resulted in a gain of 2.82 QALY’s at a cost of $107,062 compared to Levodopa/Carbidiopa combination therapy which resulted in 2.35 QALY’s at a cost of $104,000 at the end of 5 years. The expected cost per QALY was $37,965 for Ropinirole while that of Levodopa/Carbidiopa combination was $43,584. One way and two way analyses were consistent, validating the results. CER was found to be $9,870 per QALY for switching from Ropinirole to Levodopa/Carbidopa therapy. CONCLUSIONS: Our cost-effectiveness analysis indicates that Ropinirole is a better option as compared to Levodopa/Carbidopa for treatment of patient suffering from PD.

ECONOMIC TRENDS ASSOCIATED WITH NATALIZUMAB THERAPY IN A COMMERCIALY MANAGED MULTIPLE SCLEROSIS POPULATION

OBJECTIVES: Identify a population of multiple sclerosis (MS) patients new to treatment with natalizumab. Evaluate the economic impact of discontinuation of natalizumab and up to 3 years after continuing treatment. Compare and quantify differences in costs based on patterns of natalizumab use. METHOD: Using integrated medical and pharmacy claims data (IMS LifeLink™ Health Plan Claims and Longitudinal Prescriptions databases), patients were included in the analysis based on the presence of a diagnosis of MS (ICD-9 code 340- ) during calendar years 2005 through 2008. Economic information related to the treatment of MS was captured using the Episode Treatment Group™ software. RESULTS: From the database, 76 MS patients that started natalizumab treatment and had 4 full calendar years of data were observed. These patients were observed for the year prior to start of natalizumab treatment in 2006, through the end of the 2008 calendar year. Patients were stratified by continuation of natalizumab during the study period. For all patients, there were significant increases in annual pharmacy costs ($17,667 to $40,609) during the year natalizumab treatment was initiated, in addition to outpatient medical services ($8,383 to $11,744). For patients who continued natalizumab for the entire study period, inpatient costs decreased from $2,630 to an average of $5 per year; emergency room costs in this group also decreased from a maximum of $537 to $218 annually. For patients who discontinued natalizumab during the study period, there were increased inpatient costs after discontinuation ($2,630 to $6,701). CONCLUSIONS: Though the study size is small, the cost observations can enable decision-makers to better understand costs associated with the short- and longer-term use of natalizumab for the treatment of MS.

MEASURING THE IMPACT OF NATALIZUMAB THERAPY ON HEALTH CARE UTILIZATION IN A COMMERCIALY MANAGED MULTIPLE SCLEROSIS POPULATION

OBJECTIVES: Identify a population of MS patients new to treatment with natalizumab. Observe and record healthcare utilization before initiation of natalizumab and up to 1 year after continuing treatment. Compare and quantify differences in healthcare utilization for the year prior to natalizumab therapy with the following calendar year. METHOD: Using integrated medical and pharmacy claims data (IMS LifeLink™ Health Plan Claims and Longitudinal Prescriptions databases), patients were included in the analysis based on the presence of a diagnosis of MS (ICD-9 code 340- ) during calendar years 2006 through 2008. Clinical and utilization information related to the treatment of MS was captured using the Episode Treatment Group™ (ETG™) episode-building software. RESULTS: From the database, 349 MS patients that were both new to natalizumab treatment in 2007 and had 3 full calendar years of data were observed. In the year of treatment initiation with natalizumab, there was an overall increase in the number of prescriptions received (14.0 to 22.6 per year), as well outpatient medical services (16.1 to 25.6) which would be expected with starting a new MS therapy. In addition to these increases, ER and inpatient utilization were also on the rise prior to initiation of natalizumab, however, utilization of ER and inpatient services significantly decreased in the following calendar year. During this period, there were also significant decreases in the amount of drugs used for supportive care of MS including corticosteroids, antiplatelets, and benzodiazepines. CONCLUSIONS: Healthcare costs were their highest in the year natalizumab was initiated. Following initiation of natalizumab therapy, there was a decrease in ER, inpatient and supportive care utilization.

ECONOMIC EVALUATION OF LACOSAMIDE ADJUNCTIVE THERAPY IN THE TREATMENT OF PATIENTS WITH REFRACTORY EPILEPSY IN THE UNITED STATES

OBJECTIVE: To calculate and compare the incremental cost-utility ratios for standard treatment with a common anticonvulsant drug (ACTH) and lacosamide in patients with uncontrolled partial-onset seizures. METHOD: The model simulated the treatment pathway of a hypothetical cohort of 1000 patients over two years from the third party payer perspective in the United States in 2010. A decision tree was split into four phases of six months each during which patients can become seizure free, experience a seizure reduction (responder defined as ≥50% reduction in seizures), or withstand due to non-response. The standard therapy arm included five adjunctive therapies: carbamazepine, lamotrigine, levetiracetam, topiramate, and valproate. The likelihood of being in a particular health state...