NEUROLOGICAL DISORDERS – Patient-Reported Outcomes Studies

PND20 COMPLIANCE AND PERSISTENCE OF ORAL CHOLESTERASE INHIBITORS IN PATIENTS WITH ALZHEIMER’S DISEASE

OBJECTIVES: Early initiation of therapy with disease-modifying drugs (DMDs) is important for the successful management of multiple sclerosis (MS). This study examined the time to first use of DMDs in newly diagnosed MS patients. Meflin DMD in a post hoc analysis, newly diagnosed MS patients were identified using a national managed care database. Patients, aged 18 to 65 years, received their first MS diagnosis between July 1, 2000 and December 31, 2003 (index date), and were continuously eligible for 6 months prior to the index date and 24 months after the index date. During the 24-month postindex period, subjects received ≥1 DMD (interferon beta [IFN]-1a intramuscular, IFNβ-1b, glatiramer acetate, IFNβ-1a subcutaneous, or natalizumab). The analysis did not include patients whose first DMD prescription was greater than the study end date (December 31, 2007), or those who had used DMD in 6 months preceding their first MS diagnosis. RESULTS: A total of 2522 MS patients (76.3% women) met the inclusion criteria for the study. The mean ± standard deviation patient age was 41.2 ± 9.7 years. Most patients (47.9%) were from the Midwest, reflecting the national database sampling. The median time from first MS diagnosis to first DMD use was 61.4 days; mean time was 171.9 days. At the time of first treatment was examined in 30-day increments, the results showed that 27.8% received their first DMD in ≤30 days, 49.0% in <60 days, 59.6% in <90 days, and 74.2% in ≤180 days. One of every 4 patients (25.8%) did not initiate DMD for ≥180 days following their first diagnosis. CONCLUSIONS: The findings of this analysis suggest that newly diagnosed MS patients often delay initiating DMD therapy.

PND17 DIRECT MEDICAL COSTS AND THE LIKELIHOOD OF HEALTH SERVICE UTILIZATION BEFORE AND AFTER INITIATION OF INTERFERON β1A-IM TREATMENT AMONG PERSONS WITH MULTIPLE SCLEROSIS (MS)

OBJECTIVES: Because limited data are available on changes in direct costs (medical and prescription) and likelihood of health service utilization among employers treated with interferon (IFN) β1a-IM for MS, the study aimed to assess the changes in direct costs and likelihood of health service utilization for persons with multiple sclerosis (MS) treated with IFN β1a-IM. METHODS: A health care claims database of US employers from 2001-2008 was used to identify patients with MS (2 IFN β1a-IM prescriptions/Rx) or an IFN β1a-IM Rx & MS diagnosis (ICD-9-340.X). Employees with eligibility 6 months before and after their initial IFN β1a-IM Rx and no other disease-modifying therapies were included in the analysis. Non-parametric tests and t-tests were used to compare the mean and median direct medical costs and the likelihood of health service utilization before and after initiation of IFN β1a-IM. RESULTS: Data from 68 employees with MS that took IFN β1a-IM (42 employees with health service utilization data) were eligible for analysis. All direct medical cost changes were significant (P < 0.01). Mean medical costs decreased by $2872 (54%) from $5359 to $2467 and median costs decreased by $3691 (80%) from $4556 to $905. Significant (P < 0.05) decreases in the likelihood of health service utilization were noted for the following: 11.9% for emergency department from 11.9% to 0%, 23.8% for outpatient hospital from 64.3% to 40.5%, and 16.7% for “other” (including home-care, ambulance, emergency department, and unknown) from 31.0% to 14.3%. Inpatient hospital costs decreased non-sigificantly (P = 0.09) by 11.6% from 17.6% to 4.8%, while lab and office claims stayed the same (7.1% and 92.9%, respectively). CONCLUSIONS: Direct medical costs decreased for IFN β1a-IM patients after therapy initiation, with reduced use of emergency department, outpatient and inpatient hospital care, and other services. These differences suggest the costs of interferon β1a-IM are partially offset by medical care saving.

PND18 A HEALTH ECONOMIC EVALUATION OF TRANSCANAL COLONIC IRRIGATION IN SPINAL CORD INJURY PATIENTS

OBJECTIVES: To analyse the cost and cost-effectiveness of transanal colonic irrigation (TACI) in patients with a self-administered system compared to conservative bowel management in spinal cord injury patients seen from a German perspective. METHODS: A cost effectiveness model was developed based on a randomised controlled multicentre trial conducted in 2003-2005, where 87 adult spinal cord injured patients with neurogenic bowel dysfunction were allocated to 10 weeks with either TAI or conservative bowel management. The sensitivity analysis was an extreme analysis based on confidence intervals, and estimates the results for best case and worst case scenarios. Cost variables (i.e. cost of constipation medication, treatment for urinary tract infections, products, labour of carer helping with bowel management and lost productivity of patients) were included and based on the clinical study results. Estimates of resources and unit costs were made for the German health care system. Effect variables were drawn from the same clinical trial. RESULTS: When comparing outcome measures at termination, TAI significantly reduced symptoms of neurogenic bowel dysfunction. For the 60-days period cost was lower for TAI (€365 vs €614), however labour costs due to bowel management were lower (€6 vs €9). For 1TAI, costs associated with urinary tract infections (€1 vs €3) and patient time spent (€15 vs €23) were reduced. Thus, the total cost to society was slightly lower when patients used TAI with a self-administered system (€38 vs €43). The sensitivity analysis shows that costs may range from €33 to €46 for TAI and from €63 to €66 for conservative bowel management. CONCLUSIONS: Transanal colonic irrigation reduces the symptoms of neurogenic bowel dysfunction and results in a slightly lower total cost to society than conservative bowel management. The total cost results were found to be robust in the sensitivity analysis.

PND19 EXPLORATORY ANALYSES AND MODELING FOR RELATIVE COSTS OF INFANTS WITH HYDROCEPHALUS

OBJECTIVES: Hydrocephalus is a disorder where cerebrospinal fluid (CSF) is unable to drain efficiently from the brain. Infants affected often present with enlarged heads, and multiple complications can occur. The standard treatment is the relatively dangerous, complicated, and expensive surgical insertion of a shunt system to drain the fluid. The Institute of Medicine project to explore possible contributing variables to the presence of the disease in infants and its relative costs. METHODS: Infants one-year-old or younger affected with hydrocephalus and an equally sized control group were extracted from the National Inpatient Sample (NIS) provided by the Agency for Healthcare Research and Quality (AHRQ). The statistical data modeling software SAS, was used for calculation of summary statistics, kernel density estimation, logistic and linear regression, and production of figures and charts. Exploratory data analysis was used to examine the data in detail. RESULTS: It was determined that younger infants show higher mortality rates; additionally, males are more likely to present with hydrocephalus and cost slightly more on average than females despite the distribution curves for length of stay appearing virtually identical between genders. Diagnoses and procedures expected for non-hydrocephalic infants showed negative correlation in the logistic model. The linear model showed that low birth weight significantly impacted length of stay when also present with hydrocephalus. Additionally, afflicting with hydrocephalus at admittance was strongly correlated with length of stay but not total costs, implying an impact on recovery time, but not additional treatments. CONCLUSIONS: The costs of health care in America are constantly rising, and infants often incur greater costs due to the need for sophisticated and advanced treatments. Hydrocephalus clearly exacerbates medical costs, and should warrant further study. Exploratory analysis can find important and relevant information about the disease.

FIRST USE OF DISEASE-MODIFYING DRUGS IN PATIENTS WITH MULTIPLE SCLEROSIS

OBJECTIVES: The purpose of this study was to examine the time to first use of DMDs in newly diagnosed MS patients. The analysis examined the time to first use of DMDs in newly diagnosed MS patients. RESULTS: A total of 2522 MS patients (76.3% women) met the inclusion criteria for the study. The mean ± standard deviation patient age was 41.2 ± 9.7 years. Most patients (47.9%) were from the Midwest, reflecting the national database sampling. The median time from first MS diagnosis to first DMD use was 61.4 days; mean time was 171.9 days. At the time of first treatment was examined in 30-day increments, the results showed that 27.8% received their first DMD in ≤30 days, 49.0% in <60 days, 59.6% in <90 days, and 74.2% in ≤180 days. One of every 4 patients (25.8%) did not initiate DMD for ≥180 days following their first diagnosis. CONCLUSIONS: The findings of this analysis suggest that newly diagnosed MS patients often delay initiating DMD therapy.