COMPARISON OF MEDICATION ADHERENCE TO INTERFERON BETA-1B AND INTERFERON BETA-1A SUBCUTANEOUS IN MULTIPLE SCLEROSIS PATIENTS

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OBJECTIVES: To compare medication adherence to interferon beta (IFN-B1b) and IFN-Beta 1a subcutaneous (SC) in patients with multiple sclerosis (MS). METHODS: This was a retrospective analysis of patients with a diagnosis of MS in a national managed care database that had ≥1 outpatient DMD claim during the 7/1/2002 to 12/31/2005 selection period. Eligible patients were continuously enrolled for 6 months before and 24 months after their initial drug claim (index event) and were between 18 and 65 years of age. Medication possession ratios (MPRs) were calculated as the percentage of ambulatory days during the 24-month post-index period from the date of first use of the index DMD. The primary analysis was logistic regression predicting likelihood of adherence (MPR ≥85%) by treatment group (IFN-B1b vs IFN-B1a SC), including covariates of age, sex, and region of the country. RESULTS: A total of 530 MS patients (IFN-B1b, n = 206, IFN-1a SC, n = 324) met the study criteria. Patients had a mean age of 43.6 years, 77.2% were women, 49.0% were located in the Midwest, and 94.2% were commercial insured. Average 2-year MPRs were 57.9% and 63.7% (P = 0.020) for IFN-B1b and IFN-1a SC, respectively. The percentage of patients who were adherent (MPR > 85%) was 39.3% for IFN-B1b vs 49.4% for IFN-B1a SC. A logistic regression using categorical MPR as the dependent variable found that IFN-1a SC patients were significantly more likely to be adherent than IFN-B1b patients (OR = 1.661, P < 0.01). Older age (in 10 year increments) was also a significant predictor of adherence (OR = 1.301, P = 0.0037). Sex and region of the country were not statistically significant. CONCLUSIONS: In this retrospective analysis, patients using IFN-1a SC were more likely to be adherent with their DMD therapy over a 2 year period than patients using IFN-B1b, while controlling for age, sex, and region of the country.

PREVALENCE OF TREATMENT GAPS IN MULTIPLE SCLEROSIS PATIENTS RECEIVING DISEASE-MODIFYING DRUGS: FINDINGS FROM A NATIONAL MANAGED CARE DATABASE

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OBJECTIVES: Although gaps in therapy with disease-modifying drugs (DMDs) may result in treatment for patients with multiple sclerosis (MS), maintaining continuous therapy is a challenge in MS care. This study evaluated gaps in DMD therapy in MS patients. METHODS: In this retrospective study, patients with a diagnosis of MS and ≥1 claim for a self-injectable DMD (index claim) between January 1, 2000-December 31, 2005 were identified using a national managed care database. Eligible patients (aged 18 to 65 years) were continuously enrolled for 6 months before and 24 months after the index date, and had no nursing home claims. The analysis excluded patients receiving natalizumab because most of the natalizumab claims did not contain the necessary days supply data. Maximum gap (MaxGap), which captures the maximum period of a given lapse in treatment per patient, was defined as the number of days between the lapsing of days supply of the prior prescription and fulfillment of a new prescription over the 24-month observation period. MaxGap was also assessed between the first and last claim during the observation period. RESULTS: A total of 316 patients (76.5%) met the inclusion criteria for the study. The mean ± standard deviation patient age was 44.0 ± 9.4 years, and most (51.0%) were from the Midwest. The results showed MaxGaps of ≥20 and <11 days in 20.5% of patients, ≥21 and <31 days in 24.7%, ≥31 and <61 days in 11.3%, ≥61 and <90 days in 6%, and ≥90 days in 37.7%. When examining the maximum gap between the first and last prescription claim, 36% of patients had a MaxGap of ≥23 days. CONCLUSIONS: Maintaining continuous DMD therapy remains a challenge for MS patients. Over 24 months, more than one third of patients had a gap in therapy of ≥90 days.

BURDEN OF MULTIPLE SCLEROSIS ON HEALTH-RELATED QUALITY OF LIFE: BASELINE FINDINGS FROM AN OBSERVATIONAL STUDY

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OBJECTIVES: To measure health-related quality of life (HRQoL) by SF-12 in multiple sclerosis (MS) patients and to compare the SF-12 component scores in MS patients with available US national average scores (norms). METHODS: ROBST is an ongoing multi-center prospective US observational study among MS patients, involving a series of questionnaires completed via a web tool. A battery of items in the patient questionnaire is the SF-12 (Version 2). The ROBST baseline SF-12 Physical Component Summary (PCS) and Mental Component Summary (MCS) were analyzed against US population norms. RESULTS: A total of 191 ROBST participants completed baseline HRQoL assessments and were included in this analysis. The mean (SD) age was 40.6 (11.2) years and a majority were female (81.2%), white (86.9%), married (68.6%) and worked full- or part-time (61.2%). The MCS-12 showed a gradual increase with the level of education. Among the ROBST population, the mean (SD) scores on PCS-12 [40.64 (11.18)] and MCS-12 [42.54 (11.44)] were significantly lower than the norm [PCS-12: 49.63 (p < 0.001); MCS-12: 49.37 (p < 0.0001)]. The PCS-12 [40.11 (11.17)] and MCS-12 [42.42 (11.44)] were also significantly lower compared to their corresponding age groups [all p < 0.001]. Among these age groups within the ROBST population; PCS-12 scores were lower after 40 years compared to that in younger age group, while MCS-12 does not show this same change with age. CONCLUSIONS: SF-12 component scores were significantly reduced in the ROBST population compared to the available national average scores, suggesting a lowering of general HRQoL in MS population.

THE IMPACT OF LENNOX-GASTAUT SYNDROME (LGS) ON HEALTH RELATED QUALITY OF LIFE – A CONCEPTUAL MODEL

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OBJECTIVES: The onset of LGS during early childhood brings particular concerns for the child with LGS and for the parents caring for the child with the condition. LGS is a severe form of childhood epilepsy which is characterized by multiple seizures and mental deficiency. This study was conducted to explore the impact of LGS on the HRQoL of the parent and the child and to develop a conceptual framework. METHODS: Semi-structured interviews were conducted with 40 parents of children with LGS in the US, UK, and Italy. Given the fact that it was not possible to interview the children, parents were asked to provide a report on their perceptions of the HRQL of their child in addition to designing the impact on their own HRQoL. RESULTS: Analysis using Atlas Ti was conducted to develop themes relating to the impact on HRQoL. The themes were organized into a conceptual model of the impact of LGS on the HRQL of the parent and the child. RESULTS: Parents reported extensive difficulties in every aspect of their own lives. Major themes included burden of care on work and social activities, stigma, frustration, anxiety and other physical issues (including sleep disturbance), as well as concerns about the future for their child. With respect to the HRQL of the child, the parents reported that the physical functioning of the child is affected, particularly in relation to mobility difficulties. LGS has a significant impact on a child’s cognitive skills with some of the children not being able to talk. In addition, children with LGS tend to have little or no social skills and find interacting with others difficult. CONCLUSIONS: LGS has a substantial negative effect on the HRQL of parents of a child with LGS as well as on the HRQL of the child himself/ herself.

UTILITIES FOR MODERATE ALZHEIMER’S DISEASE: RESULTS FROM A SURVEY OF THE GENERAL PUBLIC IN CANADA

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OBJECTIVES: (1) To elicit health utility scores for moderate Alzheimer’s disease (AD) using the Canadian public; (2) to compare utility scores for Canadians’ self-assessed health status with utility scores for health status defined as moderate AD; (3) to measure awareness of AD; and (4) to determine factors that influence utility scores. METHODS: Five-hundred Canadians were randomly selected to participate in a 15-minute telephone interview. The sample was national in scope and included a mix of low and high income. The EQ-SD was administered to measure utility for respondents’ current health status (i.e., no AD). After describing moderate AD, respondents were asked to answer the EQ-SD again, this time imagining they had moderate AD. AD awareness was measured with the Alzheimer’s Disease Knowledge Test (ADKT). Respondents were also asked about socio-demographics and whether they knew someone with AD. OLS regressions were conducted to identify determinants of EQ-SD utility scores. RESULTS: The mean age of respondents was 51 years, 61% were female, and 42% knew someone with AD (e.g., family member). Mean ADKT score was 3.4 (SD: 1.1) out of 5 (higher scores indicate better knowledge of AD). Respondents’ mean EQ-SD score for their current health status was 0.857 (SD: 0.153). Mean EQ-SD score for a hypothetical, moderate AD health status was 0.638 (SD: 0.20), a utility decrement of 0.22. For the VAS component of the EQ-SD, scores were higher for the current health status (79.16 versus 57.66). Age and income were significant explanatory variables for current health status utilities, but only age was significant in the determination of the utility score under the assumption of moderate AD. Gender, knowledge of someone with AD, or AD awareness scores had no impact. CONCLUSIONS: When measured by the EQ-SD, Canadians would expect to assign a lower utility to their health status when they have moderate AD.

THE IMPACT OF DIFFERENT STAGES OF MULTIPLE SCLEROSIS ON HEALTH UTILITIES: A SYSTEMATIC REVIEW OF THE LITERATURE

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OBJECTIVES: Multiple Sclerosis (MS) causes neurological disability of varying severity. Disability in MS is measured by the Kurtzke Expanded Disability Status Scale (EDSS), a clinician-based neurological impairment rating scale (scale from 0 to