in health care consumed for the treatment of multiple sclerosis (MS) in patients enrolled in MedAssets (commercial) and publicly (Medicaid) funded health insurance programs. METHODS: In a retrospective analysis, integrated medical and pharmacy claims data were analyzed to select patients with a diagnosis of MS (ICD-9 code 340) during 2012 calendar year. The presence of comorbidities was also determined by ICD-9 codes present on medical claims. Prescription drug use was evaluated by pharmacy claims and drug-specific billing codes. RESULTS: 19,984 patients with MS were identified, 18,269 from commercial payers and 1715 from Medicaid. Patients in the Medicaid group were younger (44 vs 48.8 years old) and female (81.5% vs. 76.8%) compared to Commercial group, respectively. Although total annual costs related to the care of MS for the groups reflected a modest difference ($31,107 commercial, $33,344 Medicaid), costs associated with specific categories of care varied greatly. Pharmacy costs were considerably less in the Medicaid group, however inpatient and emergency room costs were as much as 5 times higher. The lower pharmacy costs in the Medicaid group are related to lower use of disease modifying therapy (DMT). Overall use of DMTs in the Medicaid group was seen in 32.5% of patients, while in the commercial patient group was 52.1%. Multivariate regression will be performed to examine the differences in cost and utilization adjusting for differences in baseline characteristics. CONCLUSIONS: These differences may be due to variations in resources between patients enrolled in privately and publically funded health care programs. These variances may have additional implications relating to outcomes specific to MS.

PND32 ANALYSIS OF HEALTH CARE RESOURCE USE AND COST IN DMT TREATED VS NON-DMT TREATED PATIENTS WITH MULTIPLE SCLEROSIS IN THE UNITED STATES

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BACKGROUND: Multiple studies have demonstrated the benefits of DMTs in slowing the spectrum of symptoms affecting the bone, skeletal system, and organs of affected tissue. However, to provide the overall economic benefits of treatment with DMTs, adherence must be considered. Adequate adherence to DMTs is associated with lower non-DMT medical and indirect costs and increased health care resource use for MS patients.

PND34 EFFECT OF IMPROVING ADHERENCE TO DISEASE MODIFYING AGENTS ON HEALTH CARE RESOURCE UTILIZATION AND MEDICAL COSTS IN PATIENTS WITH MULTIPLE SCLEROSIS

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OBJECTIVES: Prior studies have compared multiple sclerosis (MS) patients who are adherent to disease-modifying drug (DMD) therapy with those who are not, but have not analyzed the effect of varying levels of adherence on patient outcomes. This study characterized the benefits and cost offsets of increasing adherence to DMDs. Health care costs and resource use were assessed for patients with different adherence levels at various disease activity levels following treatment with DMDs. METHODS: A retrospective analysis was conducted using OptumHealth Reporting and Insights employer claims database on MS patients (≥2 diagnoses of ICD-9-CM 340.xx) initiating DMD therapy in 2002 through 2012. Direct medical costs (reimbursements to providers), indirect costs (PDI and disability payments and employer workloss costs), and resource use were analyzed at each follow-up period. RESULTS: The study showed a higher adherence to DMT therapy is associated with lower non-DMT medical and indirect costs. Higher adherence is associated with lower hospital admission rates.

PND35 ADHERENCE OF MULTIPLE SCLEROSIS PATIENTS TO DISEASE MODIFYING TREATMENT AND ITS IMPACT ON QUALITY OF LIFE

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OBJECTIVES: Disease-modifying therapies (DMT) play an important part in the treatment of Multiple Sclerosis (MS). Non-Adherence to DMT affects therapy success and may disturb a patient’s Quality of Life (QoL). This study investigates patient adherence to approved DMTs for MS among geographically and culturally diverse patient populations and their impact on health related quality of life. METHODS: The study was an observational multinational post marketing study. A retrospective medical data about diagnosis and therapy was conducted using OptumHealth Reporting and Insights employer claims database on MS patients (≥2 diagnoses of ICD-9-CM 340.xx) initiating DMD therapy in 2002 through 2012. The study included 2,566 patients 18 years or older with a documented diagnosis of relapsing-remitting MS (RRMS) and monotherapy with current DMT from Argentina, Australia, Austria, Belgium, Brazil, Canada, Czech Republic, Denmark, France, Germany, Iran, Ireland, Israel, Italy, Mexico, The Netherlands, Portugal, Spain, Sweden, Switzerland, UK, and Venezuela were included. Retrospective medical data about diagnosis and therapy were documented by physicians or nurses. For the purpose of patient predetermined treatment, the MS International Quality of Life Questionnaire (MSQoL) was selected. RESULTS: “Adherence” was operationally defined as “Not missing a DMT injection or changing dose within 4 week prior to study”. The study findings revealed that 75% of the patients were non-adherent. 95% of patients forgot to administer injections compared to 50% of non-adherent patients. This is a common reason for non-adherence were forgetting to administer the injection, being tired of injections, pain at injection, and injection anxiety. Comparison to non-adherent patients, the disease burden was lower (p<0.05).

PND36 PATIENT-REPORTED MOTIVATIONS FOR MEDICATION SWITCHING AND ORACLE CHALLENGES AMONG PATIENTS WITH MULTIPLE SCLEROSIS

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OBJECTIVES: MS is a chronic, progressive, autoimmune disease that is characterized by episodes of worsening, symptoms or relapses. Patient adherence to medications can help reduce or lessen relapses; however, non-adherence is a recognized problem in patients with MS. The objectives of this study are to better understand patients’ reasons for medication switching and/or adherence challenges among patients with multiple sclerosis. METHODS: We extracted 150 records for MS patients from a unique database of physician-patient interactions (RealHealth Data). Using Atlas ti, we analyzed these records to identify specific motivations for medication switching and/or adherence challenges and how patients stopped, what if anything they took as a replacement or an addition as well as to the patients’ reaction(s) to new medication or non-medication. RESULTS: On average, patients’ ages ranged from 18-45, 66% of patients reported their pain as a 3 or 4 and 83% reported actively taking prescribed medications. Patients’ functional disability was similar to the general MS population, with a noted variability of motor skills. The medications pre-scribed to these patients included: Aubagio (5%), Copaxone (22%), Extavia/Betaseron (3%), Gilenya (17%), Rebif (14%), Tecfidera (10%) and Tysabri (19%). Patients’ reported neurologic disorders – patient-reported outcomes and patient preference studies