**Poster Presentations**

**Friday, June 4 (6:30 pm - 8:00 pm)**

**(S130) IMPACT OF TREATMENT ADHERENCE ON CLINICAL AND ECONOMIC OUTCOMES**

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**Background:** The goals of treating multiple sclerosis (MS) with disease-modifying therapies (DMTs) are to slow the rate of disease progression and reduce relapses. Medication adherence in chronic diseases like MS plays an important role in long-term disease management. However, there are limited data on the impact of treatment adherence on MS-related clinical and economic outcomes in the real-world setting. **Objectives:** To assess the impact of treatment adherence on MS-related hospitalizations (INP), emergency department (ED) visits, relapses, and medical costs. **Methods:** Patients with ≥1 ICD-9-CM code for MS and who received ≥1 DMT (intramuscular or subcutaneous interferon beta-1a, interferon beta-1b, or glatiramer acetate) between July 1, 2004, and June 30, 2008, were identified from an administrative claims database. The first DMT received during the study period was defined as the index treatment, and ≥6-month pre- and ≥12-month post-index continuous health-plan enrollment were required. Adherence was assessed using medication possession ratio (MPR), defined as total number of days' supply of the index treatment divided by a 1-year period; patients with an MPR >80% were defined as adherent. Multivariate analyses were used to evaluate the impact of adherence on MS-related clinical and economic outcomes after controlling for baseline demographic and clinical characteristics. **Results:** Among 2446 MS patients, 54.6% were adherent to their index DMT. Compared with the adherent group, nonadherent patients were significantly more likely to have MS-related INP visits (odds ratio [OR], 1.70; 95% confidence interval [CI], 1.28-2.26), ED visits (OR, 1.49; 95% CI, 1.12-1.98), and relapses (OR, 1.71; 95% CI, 1.43-2.05), and incurred higher annual medical costs ($3199; 95% CI, $2870-$3564 vs. $4485; 95% CI, $3982-$5052; P < .001, respectively). **Conclusions:** Adherent patients had statistically significantly better clinical and economic outcomes compared with nonadherent patients. Medication adherence is important in improving disease outcomes and should be considered an important factor in selecting the appropriate treatment.

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**Keywords:** economic issues and MS, disease-modifying treatment in MS