were females. The mean age and Charlson Co-morbidity Index score were higher among patients who received INF compared to those on ETA. All-cause PPPM costs were higher among patients who received ETA ($6320) compared to patients who received INF ($2313). The magnitude of the difference was greater among patients who received INF alone ($3368) compared to ETA alone ($8257, p < 0.05). Differences in total health care costs persisted after adjustment for covariates (p = 0.0366). Similar results were obtained when excluding outlier patients with high cost (outliers were defined as those patients with values more than 2 standard deviations above the mean). CONCLUSION: This study indicates that INF therapy is associated with lower all cause health care costs compared to ETA therapy, in the treatment of patients with PsA. The choice of a biologic treatment on health care costs should be considered when evaluating treatment strategies.

**EVALUATION OF PHARMACOLOGIC TREATMENTS OVER 30 MONTHS FOR OSTEOARTHRITIS USING A NATIONAL MANAGED CARE DATABASE**

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**OBJECTIVES:** To evaluate trends in utilization and cost of pharmacologic treatments of osteoarthritis (OA). METHODS: A retrospective analysis of OA patients (>18 years of age) in the PHARMetrics database during 2001 and 2002 was conducted using an observation period (January 2003–June 2005) divided into ten quarters. Patients were retained if they had continuous eligibility, at least two OA diagnoses, OA drug use during the observation period, no cancer, HIV or organ transplant, and were not in a nursing home. The percentage of days of drug availability, proportion of patients and cost were evaluated by type of pain treatment and adjunctive therapy (i.e., ulcer medications, hypnotics, and antidepressants). Patients’ treatments were assessed at the first quarter and followed through the tenth quarter. Random coefficient models for utilization and cost outcomes were evaluated, by treatment, using mixed model analysis of variance. RESULTS: Eligible patients (N = 9972) were, on average, 55.1 years old (SD 9.7) and 65.6% were female. Common comorbidities included endocrine or immunity disorders (71.9%), hypertension (59.0%), and obesity (17.6%). At the end of 30 months, the percent change in the number of subjects using COX-2s and NSAIDs indicated a reduction of 76% and 10%, respectively. Individual growth models on utilization and cost for COX-2 (p < 0.001) confirmed the trend. Among NSAID users, 35% used 2 or more different NSAIDs and 18.1% of these had an average time between NSAID switches of 90 days or less. Narcotics showed a significant increasing trend in percentage of days use and costs (p < 0.001). CONCLUSION: Trends over 30 months suggest, increasing narcotic use, high discontinuation of COX-2s, and a high proportion of NSAID patients with switches within 90 days. No single dominant therapy over time appeared in this study suggesting there is a potential for new approaches and reconsiderations for OA treatment.

**IMPACT OF PATIENT’S OUT-OF-POCKET COST ON ADHERENCE AND PERSISTENCE WITH BIOLOGIC THERAPIES FOR RHEUMATOID ARTHRITIS**

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**OBJECTIVES:** Assess impact of high patient out-of-pocket expenditures (OOP) on adherence and persistence with biologic treatments for RA. METHODS: An incidence cohort of RA patients with pharmacy claims for etanercept or adalimumab during 2002–2003 was selected from a database of insurance claims from self-insured employer health plans (N = 3111). Adherence was defined as the medication possession ratio (MPR), proportion of the 365 days follow-up covered by days supplied. Persistence was determined using a survival analysis of the likelihood of discontinuing therapy. Patient’s OOP was measured in two ways: 1) patient’s co-insurance and co-payments per week of therapy, and 2) proportion of the biologic medication’s cost paid by patient. Multivariate linear regression models of MPR and proportional hazard models of persistence estimated the impact of cost, adjusting for insurance type and demographic and clinical variables. RESULTS: OOP expenditure averaged $8 per week (SD $14, range $0 to $127). Only a very small proportion of patients (3.9%) paid more than $50 per week. The mean (SD) MPR for all patients was 0.52 (0.31). Adherence significantly decreased with increased weekly OOP (Coeff = -0.0035, P < 0.0001) and when patients paid a higher proportion of therapy costs (Coeff = -0.8890, P < 0.0001). This translates into approximately one week of therapy lost for every $5.50 increase in weekly OOP. Adherence was lower for younger patients, women and those with more comorbidities. Patients whose