AC7

COMPARING ADHERENCE TO FIXED DOSE COMBINATION VERSUS MULTI-PILL COMBINATION THERAPIES AMONG PATIENTS WITH DYSLIPIDEMIA IN A MANAGED CARE POPULATION

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OBJECTIVE: To compare adherence among dyslipidemia patients initiating on fixed dose combination (FDC) therapy versus multi-pill combination (MPC) therapies in a managed care population. **METHODS:** Using claims data from the HealthCore Integrated Research Database, study patients ≥18 years were identified as newly-initiating on FDC [Advicor®: niacin extended release (ERN) + lovastatin] or MPC's [simvastatin + ERN (ERN/S), lovastatin + ERN (ERN/L)] between January 1, 2000-June 30, 2006 [index date], with a minimum 6 months pre- and 12 months post-index health plan eligibility. Adherence to dyslipidemia therapy was measured using medication possession ratio (MPR). Multivariate logistic regression was used to estimate associations between study cohorts and optimal adherence (MPR ≥80%) while controlling for baseline demographic and clinical differences. **RESULTS:** A total of 8988 patients (6638 FDC; 1687 ERN/S; 663 ERN/L) were identified. Patients initiating FDC therapy were significantly younger [mean (SD) ages of 51.9 (10.5) versus 56.0 (9.4) years [ERN/S] and 56.1 (10.6) years [ERN/L], respectively, $p < 0.01$, and comprised of fewer males (73.1% vs. 83.0% and 77.7%, respectively; $p < 0.01$ and $p = 0.1$). Baseline Deyo-Charlson comorbidity scores were significantly lower among FDC patients (0.50 ± 0.9 vs. 0.7 ± 1.1 and 0.6 ± 1.1, respectively; $p < 0.01$ and $p < 0.05$). During one-year follow-up, average MPR was higher among FDC patients versus both ERN/S and ERN/L patients (0.54 ± 0.35 vs. 0.50 ± 0.35 and 0.47 ± 0.34, respectively; $p < 0.01$). Multivariate logistic regression showed that ERN/S and ERN/L patients were 31.3% (95% CI: 22.9%–39.5%) and 39.1% (95% CI: 26.7%–49.4%) less likely to be optimally adherent than FDC patients, $p < 0.01$. **CONCLUSION:** Adherence was significantly higher among FDC-initiated patients versus MPC-initiated dyslipidemia therapies in this managed care population. Further studies in clinical and economic impact of improved adherence to FDC dyslipidemia therapy are warranted.

AC8

ASSOCIATION OF MEASURES OF MEDICATION ADHERENCE AND SEVERE RELAPSES WITH MULTIPLE SCLEROSIS DISEASE-MODIFYING THERAPY

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OBJECTIVE: To examine the relationship between 3 measures of medication adherence for relapsing multiple sclerosis (MS)-related drug therapy and the likelihood of experiencing a severe MS relapse. **METHODS:** Subjects were selected from the PHARMetrics database if they had at least 1 MS drug (Avonex®, Betaseron®, Copaxone®, Rebif®) claim from January 1, 2000 through December 31, 2004, were continuously eligible for 24 months after their first MS-related prescription (index date), and 6 months prior to the index date. Subjects were excluded if the were <18 or >65 years of age, exposed to Tysabri® after the index date, had evidence of study medication use in a health care facility, or if admitted to a long-term care facility. Severe MS relapse was defined as an MS-related hospitalization or emergency room visit. MS-related medication adherence was measured by 3 methods: medication possession ratio (MPR), consistence, and persistence. Covariates included, age, gender, region of the country, and treatment status (new or existing), comorbidities, and therapy type (mono- or multi-drug therapy). **RESULTS:** Subjects (N = 2388) had a mean age of 43.9 years, 76.7% were new patients, 8.1% had at least 1 severe MS relapse, and 76.4% were female. All 3 adherence measures were significantly associated with severe MS relapse with odds ratios of 0.921 (MPR), 0.946 (persistence), and 0.895 (consistence) indicating that increased adherence is associated with decreased likelihood of experiencing a severe MS relapse. Other significant covariates ($p < 0.05$) in all models were comorbidity and East region (Mid West reference). Age, gender, and the other regions were not significant at alpha = 0.05. These results are consistent with previously reported findings on maximum gap in drug therapy and likelihood of a severe MS relapse. **CONCLUSION:** The relationship between MS-related drug therapy adherence and the reduced likelihood of a severe MS relapse is consistently supported across three measures of medication adherence.

DRUG USE RESEARCH II

DU5

IMPACT OF FORMULARY RESTRICTIONS ON ADHERENCE TO SECOND GENERATION ANTIPSYCHOTICS

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OBJECTIVE: To analyze the impact of formulary restrictions on adherence to second generation antipsychotics (SGAs). **METHODS:** A retrospective cohort study was conducted on data from a national pharmacy benefit management company covering January 1, 2004 to December 31, 2005. Patients ≥18 years of age newly treated with SGAs (aripiprazole, olanzapine, quetiapine, risperidone, ziprasidone) were followed for up to 1 year after index prescription. The two cohorts were categorized as: open formulary (all SGAs on formulary without restriction), and/or restricted formulary (any SGA not on formulary, or any formulary SGA requiring step therapy or prior authorization). Logistic regression was used to determine the main effect of formulary category on medication adherence (medication possession ratio [MPR] ≥0.8) and the probability of changing index medication regimen (switching to or adding another drug, or discontinuing index drug), adjusting for co-pay, patient demographics, geographical location, concomitant medications, index drug and health plan type. **RESULTS:** The study sample included 5017 patients (45% male) with a mean age of 46.2 years (SD 16.2). Patients in open formulary plans were significantly more likely to be adherent than patients in restricted formulary plans (OR = 1.14, 95% CI: 1.05–1.23), and were significantly less likely to change their index regimen (OR = 0.91, 95% CI: 0.84–0.99). Patients in single-tier formularies were significantly more likely to be adherent than those in two-tier formularies (OR = 1.21, 95% CI: 1.15–1.27) and less likely to change their index regimen (OR = 0.8, 95% CI: 0.75–0.85). Higher co-pays were associated with significantly lower adherence (OR = 0.95, 95% CI 0.93–0.98) but a lower likelihood of changing index regimen (OR = 0.98, 95% CI:0.96–1.00). **CONCLUSION:** Patients newly started on SGAs are more adherent and less likely to change their initial medication regimens on open formulary plans than on restricted plans. Formulary restrictions may adversely impact treatment continuity in patients new to SGA therapy.