EFFECT OF BLACK-BOX WARNING ON TIME TO SWITCH FROM ANTIDEPRESSANTS TO ANTIPSYCHOTICS AMONG CHILDREN SUFFERING FROM DEPRESSIVE DISORDERS IN TEXAS 

PMMH60

OBJECTIVES: To examine the effect of antidepressant black-box warning on time to switch to antipsychotics among previous antidepressant users. METHODS: Information from the 2003-2004 Medicaid Analytic eXtract (MAX) data from Texas, released by Centers for Medicare & Medicaid Services (CMS), were used in the study. Children aged 6-18 years and diagnosed with depression (ICD-9-CM: 293.xx, 296.xx, 298.xx, 300.xx, 301.xx, 309.xx, 314.xx) were identified. To assess the impact of FDA public health advisory antidepressants released in March 2004, children on antidepressants in February 2004 were considered to be the cases while those in February 2003 were the controls. Medication switch was operationally defined as the initiation of an antipsychotic prescription within 30 days before the end of the previous antidepressant prescription. A multivariable Cox proportional hazard model, adjusted for demographic factors and antidepressant drug classes, was used to examine the association between black box warning and time to switch to an antipsychotic among the previous antidepressant users. RESULTS: There were 14,457 children between 6-18 years, diagnosed with depression in 2003, and 26,694 in 2004. These patients, 1646 were identified as cases affected by black box warning and 1714 were identified as controls. The most commonly prescribed antidepressant was sertraline in both 2003 and 2004. FDA public health advisory on antidepressants was found to be significantly increase the time to switch from antidepressants to antipsychotics (HR = 1.41; 95% Confidence interval: 1.26-1.59). The shorter time to switch was found among Hispanics [HR (vs. Whites) = 0.851 (95% CI 0.79-0.967)]. No statistically significant association was found between other factors and medication switch. CONCLUSIONS: FDA public health advisory on antidepressants was not found to be associated with shorter time to switch to antipsychotics. Further studies are required to examine treatment discontinuation and augmentation, and switching to other medications resulting from black box warning on antidepressants.

THE EFFECTS OF ANTIDEPRESSANT STEP-THREE STRATEGIES ON PHARMACOLOGICAL AND MEDICAL UTILIZATION AND EXPENSES 

PMMH61

Ahls L1, Miettinen NM1, Fogg Y1, Bell D2
1Lilly and Company, Indianapolis, IN, USA, 2Lilly, USA

OBJECTIVES: This study examines the effects of step therapy for antidepressants on prescription drug utilization and spending and other medical care utilization and spending. METHODS: Study population employers who had implemented step therapy were compared to employers without step therapy using a pre/post design. Data were from the 2003 through 2006 MarketScan Research database, and the study sample consisted of employees and dependents who used antidepressants (n = 15,552 patients whose employer implemented a step therapy protocol; and n = 45,244 patients in the comparison group without step therapy). Multivariate generalizing estimated equation models were used to estimate the effects of step therapy on medical and prescription drug spending and utilization while controlling for important covariates and adjusting for clustering by patient. RESULTS: The effects of step therapy on the number of antidepressant days supplied per antidepressant user was characterized by an immediate drop in the number of antidepressant days supplied after implementation (coefficient < 0.01, p < 0.001). However, the number of antidepressant days supplied grew with time (coefficient 0.014 per quarter, p < 0.001), and, 5 quarters after implementation, the number of antidepressant days supplied in step therapy plans began to exceed the days supplied in comparison plans (i.e., in the fifth quarter after implementation the combined effect is -0.061 + 0.014 = 0.009). For antidepressant users, step therapy was associated with an increase in outpatient office visits and inpatient admissions and the increase remained relatively constant each quarter after step therapy began. Step therapy was also positively associated with the number of emergency room visits and the increase in emergency room visits grew with the amount of time elapsed since step therapy was implemented. CONCLUSIONS: Rather than just shifting patients to lower cost antidepressants, step therapy may have the unintended effect of reducing overall antidepressant use and increasing medical care use and costs.

MEASUREMENTS OF DEPENDENCE TO ANTI-DEPRESSANT MEDICATIONS 

PMMH62

Ahls L1, Geerds SC2, Ye W3, Waterson PK2
1Lilly and Company, Indianapolis, IN, USA, 2Lilly USA, LLC, Indianapolis, IN, USA

OBJECTIVES: Health plans often conduct analysis of patient adherence to alternative anti-depressant options using only pharmacy data. This study assesses how various factors identified on medical claims and pharmacy data records impact compliance, and evaluates the accuracy of two common measures of adherence (MME) across two selective serotonin and serotonin-norepinephrine reuptake inhibitors (SSRIs and SNRIs) during 2005. Study patients (n = 251,934) were continuously eligible 6 months before and 12 months after initiation on their index medication (duloxetine, venlafaxine XR, citalopram, escitalopram, fluoxetine, paroxetine, or sertraline). Compliance was defined as percentage of patients with 365-day medical possession ratio >80%. Analysis was based on chi-square tests and logistic regression. All reported differences were statistically significant at p < 0.01. Confidence intervals for all reported odds ratios were significant at the 95% level. RESULTS: Across all SNRI patients, compliance was the same for venlafaxine XR and duloxetine (80%). Among SNRI patients with diagnosed MDD, however, compliance was greater for duloxetine (44%) than venlafaxine XR (41%). Across all SSRI patients, compliance was highest for citalopram (29%), lowest for escitalopram (26%). Among SSRI patients diagnosed with MDD, however, compliance was highest for those on paroxetine (33%), lowest on citalopram (29%). Significant predictors of compliance based on pharmacy claims data among MDD patients included prior use of antidepressants (OR = 1.72) and initial dosing at sub- or super-therapeutic levels (OR = 0.85 and 0.92, respectively). Predictors based on medical claims data included recent visits to a mental health specialist (OR = 1.21), a co-morbid diagnosis of GAD (1.20), and the presence of a co-morbid baseline pain (OR = 0.85). CONCLUSIONS: Measures of medication compliance may be impacted by a number of factors, including patient characteristics, history, and physician adherence. Further research is needed to determine relevant confounders identified in medical claims, as well as pharmacy data records.