Sensory Systems Disorders - Conceptual Papers & Research on Methods

Objective: The purpose of this retrospective cohort study is to analyze the effect of the iPLEDGE program on rates of fetal exposure to isotretinoin in females of childbearing potential (FCBP). Methods: This study used databases from Kaiser Permanente Southern California, which includes prescription records, laboratory results, and outpatient/patient visit procedures and diagnoses. All FCBP who filled isotretinoin during the study period of March 1, 2004 to February 29, 2008 were identified. Chart review was performed to validate pregnancy in patients with positive pregnancy indicators. The analysis was performed at the treatment course-level. Treatment courses were excluded if they straddled both before and after iPLEDGE implementation on March 1, 2006. Posson regression was used to analyze the impact of iPLEDGE on the rate of fetal exposures, controlling for age, prior utilization of acne prescription medications, and other risk factors. Results: There were a total of 8 fetal exposures during 2,583 treatment courses before iPLEDGE and 6 fetal exposures during 1,959 treatment courses after iPLEDGE implementation. Unadjusted fetal exposure rates increased slightly from 3.09 per 1,000 treatment courses to 3.76 per 1,000 treatment courses with iPLEDGE. When controlling for other factors, the rate ratio for fetal exposure after compared to before iPLEDGE implementation was 0.45 [95% CI: 0.31, 0.67] in FCBP less than 21 years of age. In FCBP greater than or equal to 21 years of age, the rate ratio was 1.46 [95% CI: 1.10, 1.94]. Conclusions: The risk of fetal exposure among treatment courses filled by younger FCBP significantly decreased by 35% after the implementation of iPLEDGE. In contrast, the rate of fetal exposure significantly increased by 46% after iPLEDGE began among treatment courses filled by older FCBP. Our results suggest that the iPLEDGE program had a differential effect on the rate of fetal exposures to isotretinoin depending on patient age group.

Sensory Systems Disorders – Medical Care Use & Policy Studies

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Poster Session III

Cardiovascular Disorders – Clinical Outcomes Studies

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who suffered a VTE event and those that did not. Risk adjustment was done using propensity score matching (using the ProChoi-sim algorithm) controlling for baseline demographic and clinical characteristics between patients with and without VTE. RESULTS: In patients who underwent total knee replacement surgery (n = 104,952), 1.9% had post-operative VTE events during their initial hospitalization. Almost 69% (n = 1377) of these patients had deep vein thrombosis (DVT), 25% (n = 501) had pulmonary embolism (PE), and 6% (n = 119) had both DVT and PE. The overall likelihood of mortality was four times higher for VTE patients compared those without VTE. 13.35% vs. 3.35%. Patients with VTE during their initial hospitalization were more likely to be hospitalized in 90 days (compared to patients without an event during the same hospital stay (16.62% vs. 8.00%). In 90 days after the event, patients with VTE were more likely to have bleeding (10.17% vs. 2.68%). CONCLUSIONS: VTE events during initial hospitalization for total knee replacement surgery increased the adverse events compared with no VTE events.

PCV5

ADVERSE EVENT ANALYSIS FOR MEDICARE PATIENTS WHO UNDERWENT HIP FRACTURE SURGERY AND SUFFERED VENOUS THROMBOEMBOLISM

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OBJECTIVES: To estimate re-hospitalization and bleeding rates during the 90 days after a venous thromboembolism (VTE) event in patients who underwent knee replacement surgery and compare the outcomes with patients who did not suffer a VTE. METHODS: Based on 2005–2007 national Medicare claims, all patients who underwent knee replacement surgery were identified. The 90 days follow-up event rates for patients who had a VTE event during their initial hospitalization were calculated. Events were compared between patients who suffered a VTE event and those that did not. Risk adjustment was done using propensity score matching (using the ProChoi-sim algorithm) controlling for baseline demographic and clinical characteristics between patients with and without VTE. RESULTS: In patients who underwent total knee replacement surgery (n = 104,952), 1.9% had post-operative VTE events during their initial hospitalization. Almost 69% (n = 1377) of these patients had deep vein thrombosis (DVT), 25% (n = 501) had pulmonary embolism (PE), and 6% (n = 119) had both DVT and PE. The overall likelihood of mortality was four times higher for VTE patients compared those without VTE. 13.35% vs. 3.35%. Patients with VTE during their initial hospitalization were more likely to be hospitalized in 90 days (compared to patients without an event during the same hospital stay (16.62% vs. 8.00%). In 90 days after the event, patients with VTE were more likely to have bleeding (10.17% vs. 2.68%). CONCLUSIONS: VTE events during initial hospitalization for total knee replacement surgery increased the adverse events compared with no VTE events.

PCV6

A META-ANALYSIS OF EFFICACY OF ATORVASTATIN IN COMPARISON TO PRAVASTATIN, SIMVASTATIN AND ROSUVASTATIN FOR THE CONTROL OF DYSLIPIDEMIA AND CARDIOVASCULAR EVENTS PREVENTION

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OBJECTIVES: The aim of this study was to conduct a meta-analysis of randomized clinical trials (RCTs) to identify the effectiveness and safety of atorvastatin, simvastatin and rosuvastatin. METHODS: A systematic review was performed including RCTs in primary and secondary prevention where total cholesterol, LDL-C, HDL-C, major cardiovascular events, as well as adverse events frequency were analyzed. RCTs were searched in March 2009 in Medline, Embase and the Cochrane Collaboration. Two independent reviewers identified all articles, selected the abstracts, and extracted the data. Odds ratios (OR) and weighted means differences were calculated with 95% confidence intervals (95%CI). Random effects models were employed in the Meta-analyses using RevMan v.5.0 software. RESULTS: From 7539 studies, 66 RCT were selected. Atorvastatin showed statistically a higher improvement in LDL-C, total cholesterol, HDL-C and triglycerides in comparison to pravastatin and simvastatin (5%-15%). Rosuvastatin was statistically superior against atorvastatin in LDL-C and total cholesterol, however not in HDL-C and triglycerides (p < 0.01). Atorvastatin obtained higher reductions in age- and myocardial infarction-unrelated unstable angina, PE and total cholesterol compared to pravastatin and simvastatin (p < 0.05). Rosuvastatin 80 mg showed in comparison to pravastatin 40 mg a higher reduction of major cardiovascular events (OR 0.87; 95%CI 0.77–0.97, p = 0.01), revascularization (OR 0.86; IC95% 0.76–0.98, p = 0.02) and unstable angina (OR 0.74; 95%CI 0.57–0.95, p = 0.02); nevertheless no statistical differences were found for AMI or cardiovascular death. Rosuvastatin requires data on cardiovascular events prevention in order to be compare appropriately against atorvastatin. The frequency of adverse events resulted similar among all the statins considered in the assessed. CONCLUSIONS: Atorvastatin in comparison to pravastatin and simvastatin showed a higher control of dyslipidemia and a better reduction of major cardiovascular events, without increasing the frequency of adverse events.