VALIDATION OF THE UPDATED CHARLSON COMORBIDITY INDEX (CCI) TO PREDICT HEALTH CARE UTILIZATION FOR DIABETIC PATIENTS: A LARGE COHORT STUDY

MC4
LONG TERM PERSISTENCE WITH ACEI/ARB THERAPY AFTER ACUTE MYOCARDIAL INFARCTION: AN ANALYSIS OF THE 2006-2007 MEDICARE 5% NATIONAL SAMPLE DATA

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OBJECTIVES: To study the patterns of discontinuation of ACEI/ARB therapy and to identify factors associated with discontinuation among post myocardial infarction (MI) patients enrolled in Medicare. METHODS: This is a retrospective cohort study utilizing the Medicare 5% national sample claims data for 2006-2007. Medicare beneficiaries with continuous enrollment in Part A, B, and D in 2006-2007, and who were hospitalized for an acute MI between January 1 and June 30 of 2006, were identified using a validated algorithm, requiring a hospitalization episode ≥3 and ≥180 days with an ICD-9-CM of 410.x1 as primary or secondary diagnosis. Post-MI patients with an ACEI/ARB prescription within 90 days of discharge were followed to study patterns of discontinuation until December 31, 2007. Time to discontinuation was defined as the days from initiation of therapy to a therapy gap of ≥90 days. Survival curves were constructed using the Kaplan-Meier technique, and potential predictors of therapy discontinuation, including demographic characteristics, comorbidities, and concomitant medications were estimated using Cox proportional hazards regression. RESULTS: Of the 1,949 subjects in the cohort, 66.1% were females, 82.9% were Caucasian with a mean age of 76.8 (± 8.2) years. Approximately, 20% of the patients discontinued therapy within six months and 45% discontinued within one year. Caucasians were less likely to discontinue therapy as a group. The increasing multiple medication compliance from 50% to 80% was associated with the average probability of predicted CVD occurrence from 0.46 (p = 0.001) to 1.14 (p = 0.042, p = 0.0001) at the mean level of covariates. CONCLUSIONS: After controlling for underlying conditions, patients with multiple medications was significantly associated with a decrease in the CVD event rate with type 2 diabetes and comorbid hypertension.

MC5
VALIDATION OF THE UPDATED CHARLSON COMORBIDITY INDEX (CCI) TO PREDICT HEALTH CARE UTILIZATION FOR DIABETIC PATIENTS: A LARGE COHORT STUDY

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OBJECTIVES: In analyses of patients with type 2 diabetes (T2DM) in a large electronic health record (EHR) database, small differences were found to be statistically significant between N=1162 patients with liraglutide versus a comparison cohort due to the comparison group sample size (n=274,922). The purpose of this study is to evaluate a bootstrapping technique to provide robust mean and variance estimates for comparison patients, thereby helping to address the issue of being over-powered. METHODS: Study patients were age ≥18 years with T2DM, prescribed liraglutide or other anti-diabetic drug January 1, 2010 to July 16, 2010 and with ≥13 months of EMR activity. Bootstrapping was used to provide cohort mean, 95% CI estimates, and standard errors of the EHR-based estimates. Results were calculated as the mean of the mean values identified in 1000 random draws with replacement of 1162 comparison patients. Means (95% CI) were compared for continuous variables (age, HbA1c and blood pressure [BP]) for liraglutide versus the overall comparison group and to bootstrap estimates. RESULTS: Of 1162 liraglutide patients, C45% (95% CI) age was 54.9 (54.4, 55.3) years versus 54.6 (54.2, 55.0) years for all comparison patients and 60.9 (60.1, 61.6) years for comparison patients per bootstrap estimates (both p<0.05). HbA1c was 8.12% (8.00, 8.24) for liraglutide versus 7.62% (7.61, 7.63) and 7.63% (7.49, 7.76) for all comparison patients and per bootstrap, respectively (both p<0.05). BP was 127.8 (126.1, 128.7)/75.8 (75.3, 76.6)