association between persistence with statins and risk of incident cardiac events. The most persistent users (PDC > 80%) had a hazard ratio of 0.62 (95% confidence interval: 0.58-0.67) compared to non-persistent users (PDC <20%). Similar results were found when analyses were limited to patients with more than 5 years of follow-up. An interaction analysis between persistence and other factors detected a stronger risk reduction among diabetic males. CONCLUSIONS: This large and selected community-based study supports the results of several randomized controlled trials regarding the beneficial effect of persistent statin therapy against cardiac events among primary prevention patients.

PCV21

EFFECTS OF AZILSARTAN MEDOXOMIL VERSUS VALSARTAN AND OLMESARTAN MEDOXOMIL ON THE ACHIEVEMENT OF SYSTOLIC BLOOD PRESSURE GOALS AMONG HYPERTENSIVE PATIENTS WITH DIABETES

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OBJECTIVES: Healthcare Effectiveness Data and Information Set (HEDIS) defines controlled hypertension as systolic/diastolic BP (SBP/DBP) <130/80 mm Hg for patients with essential hypertension and diabetes. We estimated the percentage of diabetes patients with uncontrolled essential hypertension who would reach SBP goals with the angiotensin II receptor blockers (ARBs) azilsartan medoxomil, valsartan, and olmesartan medoxomil. METHODS: A Monte Carlo simulation model was created to estimate the number of patients with hypertension (SBP >130 mm Hg) and diabetes who would achieve SBP goal when treated with azilsartan medoxomil, valsartan, or olmesartan medoxomil, assuming perfect adherence; accounting for nonadherence was alternatively perfect and that 48% of patients receiving any ARB would discontinue treatment. RESULTS: Patient characteristics based on NHANES data were mean ± SD age 56±13 years, 56% male, 23% with prior cardiovascular disease, baseline SBP 151±19 mm Hg. We estimated that 41.0% of patients receiving azilsartan medoxomil would achieve SBP goal vs 43.8% for valsartan and 44.8% for olmesartan medoxomil, assuming perfect adherence; accounting for nonadherence, 21.2%, 13.9%, and 14.8% of patients would reach SBP goals, respectively. CONCLUSIONS: Our findings suggest more patients treated with azilsartan medoxomil than with valsartan or olmesartan medoxomil are expected to reach SBP goal. Further analysis should address whether these differences in SBP translate into better HEDIS quality scores.

PCV22

META REGRESSION ANALYSIS TO INDIRECTLY COMPARE THE SAFETY AND EFFICACY OF DALTEPARIN TO ENOXAPARIN IN PATIENTS WITH UNSTABLE CORONARY ARTERY DISEASE

Schuetz CA1, van Herick A1, Alperin P1, Peskin B1, Hsia J2, Gandhi SK2

OBJECTIVES: Healthcare Effectiveness Data and Information Set (HEDIS) defines controlled hypertension as systolic/diastolic BP (SBP/DBP) <130/80 mm Hg for patients with essential hypertension and diabetes. We estimated the percentage of diabetes patients with uncontrolled essential hypertension who would reach SBP goals with the angiotensin II receptor blockers (ARBs) azilsartan medoxomil, valsartan, and olmesartan medoxomil. METHODS: A Monte Carlo simulation model was created to estimate the number of patients with hypertension (SBP >130 mm Hg) and diabetes who would achieve SBP goal when treated with azilsartan medoxomil, valsartan, or olmesartan medoxomil, assuming perfect adherence; accounting for nonadherence was alternatively perfect and that 48% of patients receiving any ARB would discontinue treatment. RESULTS: Patient characteristics based on NHANES data were mean ± SD age 56±13 years, 56% male, 23% with prior cardiovascular disease, baseline SBP 151±19 mm Hg. We estimated that 41.0% of patients receiving azilsartan medoxomil would achieve SBP goal vs 43.8% for valsartan and 44.8% for olmesartan medoxomil, assuming perfect adherence; accounting for nonadherence, 21.2%, 13.9%, and 14.8% of patients would reach SBP goals, respectively. CONCLUSIONS: Our findings suggest more patients treated with azilsartan medoxomil than with valsartan or olmesartan medoxomil are expected to reach SBP goal. Further analysis should address whether these differences in SBP translate into better HEDIS quality scores.

PCV23

COMPARING THE EFFECTIVENESS OF ROSUVASTATIN AND ATORVASTATIN IN PREVENTING CARDIOVASCULAR OUTCOMES: ESTIMATES USING THE ARCHIMEDES MODEL

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OBJECTIVES: No major class trial has compared rosuvastatin with atorvastatin in preventing major adverse cardiovascular events (MACE). This study estimated the effectiveness of rosvastatin 20mg (R20) versus atorvastatin 40mg (A40) and 80mg (A80) in preventing MACE in several higher cardiovascular risk patient populations using the ARCHIMEDES model. Methods: The effectiveness of rosvastatin and atorvastatin was estimated using the ARCHIMEDES model. Archimedes model was used to simulate head-to-head clinical trials in several populations [10-year Framingham risk score (FRS) >5%, FRS >20%, EURO SCORE ≥ 5, Diabetes, secondary prevention, and Acute Coronary Syndrome (ACS)] to estimate the occurrence of MACE (comprising MI, stroke, and cardiovascular death) over time. Patients (ages 45–70) based on the National Health and Nutrition Examination Survey were enrolled in trial simulations. Treatments were modeled and validated using biomarker and outcomes data from published trials. RESULTS: The number of events in each arm was predicted from 3,060 to 55,512 deaths for the rosvastatin and atorvastatin population. R20 reduced MACE more than A40 or A80 in all scenarios, with higher risk subgroups showing greater absolute benefit. In individual trial simulations, this study bridges gaps in the evidence and helps identify cohorts that would benefit most from treatment with rosuvastatin rather than atorvastatin.

PCV24

EVALUATION OF THE CLINICAL FACTORS AND PREVENTIVE MEDICATIONS ASSOCIATED WITH THE LENGTH OF HOSPITAL STAY AMONG ISCHEMIC STROKE PATIENTS

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OBJECTIVES: Length of hospital stay (LOS) is a major cost component of hospital budgets. Accurate prediction of LOS has become increasingly important for health care systems, and reducing the LOS has the potential for large savings in the public hospital system. This study aimed to assess the factors associated with prolonged LOS of ischemic stroke taking into consideration demographic, risk factors, and clinical signs that can be assessed at the time of admission. Particular attention is paid on the impact of previous medication use on LOS. METHODS: A retrospective cohort study of all acute ischemic stroke survivors attending a hospital in Malaysia between May 1, 2008 to May 31, 2011. Long-term use of any antiplatelet or anticoagulant as a stay greater than or equal to the median of LOS. Data included demographic information, clinical information, risk factors, and previous medication use. SSPE version 15 was used for data analysis. RESULTS: Overall, 363 patients were studied. The median (interquartile range) of LOS was 69 (45–113) hours. The independent factors associated with prolonged LOS were a history of atrial fibrillation (P = 0.011), patients with moderate and severe Glasgow Coma Scale (P = 0.001), patients with higher body temperature (P = 0.015), patients with higher fasting or random blood glucose (P = 0.004), and patients without previous use of angiotensin converting enzyme inhibitor medication (P = 0.027). CONCLUSIONS: This study provided scientific data for the factors that could hamper the discharge, particularly before clinicians can evaluate the most effective, efficient, and acceptable methods of managing patients with acute ischemic stroke. Moreover, these variables are potential targets for admission time optimization, even though information is validated and real targets to reduce the burden of illness and healthcare costs of ischemic stroke.

PCV25

MANAGEMENT OF ACUTE ISCHEMIC STROKE AND ITS LONG TERM EVOLUTION IN THE UNITED STATES AND CANADA

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OBJECTIVES: Acute ischemic stroke (AIS) is a major public health concern and among the leading causes of death and disability in western societies. The management of AIS and its long term evolution in the USA and Canada was assessed through a literature search. METHODS: Medline was searched for the time period 1999-2010 to identify stroke cohorts and registries containing relevant data on AIS management and/or long term evolution. Subsequently, a ranking process was completed in order to select the most relevant references. A total of 680 references were retrieved (581 USA and 99 Canada). Publications from more than 80 distinct cohorts/registries/databases were analyzed and a final selection led to the identification of 43 publications for the USA and 25 for Canada. IS proportion among all strokes ranged from 43%-90% in hospital cohorts. 24%-33% of all stroke admissions were admitted at the hospital for less than 3 hours and 72% of all stroke admissions had received 3 hours of acute stroke treatment was received in 1.1%-14% of all AIS patients. The majority of patients, i.e. 82%-100% underwent a CT/MRI scanning. In general, hospital setting and care characteristics were poorly documented and relatively few quality indicators of stroke treatment were targeted. For long term survival, cardiovascular mortality was well documented (5%-17% 1 month, 17%-35% 3 months, 30%-37% 3 years, 37%-54% 5 years). AIS recurrence and cardiac events were described in few, mainly USA, studies. There was a lack of data on disability (modified Rankin Scale) evolution 3 months and studies on depression were scarce. CONCLUSIONS: Hospital setting, characteristics of care, and long term evolution of disability are poorly documented in American and Canadian registries. New cohort and registry studies should specifically aim to generate real life data on ischemic stroke care that influence short and long term clinical and associated economic outcomes.