surgery. METHODS: This one-year retrospective cohort study was conducted at a medical center in Taiwan from January 1st to December 31th in 2011. Adult patients (above 18 years) who had undergone total hip replacement or total knee replacement were identified by inpatient electronic database. Medical records were reviewed from the surgery day to at least three months post-operation for collecting demographic details and DVT-related clinical symptoms as the surrogate of effectiveness. Demographic and pre-surgery characteristics of patients were assessed by descriptive statistic. Relative risk (RR) was calculated with 95% confidence interval (95% CI). RESULTS: Medical records of 212 patients (66.98% women) were reviewed. A total of 81 patients (38.21%) received rivaroxaban, 37 patients (17.45%) received aspirin, and 45 (21.22%) patients received no antithrombotics or antplatelets. There was no stroke case in aspirin, warfarin, and aspirin/rivaroxaban combination group. Compared to other anti-thrombotics, rivaroxaban was associated with higher RR for stroke (RR 1.11; 95%CI: 1.00–1.24) and higher RR for bleeding (RR 1.45; 95%CI: 1.32–1.9). However, aspirin/rivaroxaban combination showed an increase in bleeding events (RR 1.87; 95%CI: 0.46–7.7). CONCLUSIONS: Treatment with aspirin or warfarin seems effectively reduce the risk of stroke. Aspirin/rivaroxaban combination may increase bleeding events. Further studies are needed to explore the effectiveness and safety of antithrombotics using a longitudinal data source with sufficient patients’ characteristic data.

PCV7 A MIXED TREATMENT COMPARISON (MTC) TO COMPARE THE EFFICACY OF ANTI-THROMBOTIC AGENTS IN THE PREVENTION OF STROKE AND SYSTEMIC EMBOLISM (SE) IN PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION (NVAF)

Iannuzzi JC, Rickles AS, Fleming FJ, Monson JR, Noyes K
University of Rochester School of Medicine and Dentistry, Rochester, NY, USA

OBJECTIVES: To quantify the incremental cost-effectiveness of dabigatran, rivaroxaban, dabigatran etexilate (dabigatran), aspirin and adjusted standard dose warfarin (warfarin) in people with NVAF. METHODS: Randomised controlled trials (RCTs) for inclusion were identified using the MS for rivaroxaban, and 2 similar reports for dabigatran; inclusion was validated using published systematic reviews. RCTs were assessed for comparability based on patients’ disease severity, and treatments received. A Bayesian MTC was conducted, and fixed and random effects models were explored. Consistency was assessed via pair-wise meta-analysis for each treatment versus warfarin. Odds ratio (OR) was chosen as the summary statistic. RESULTS: The network of 8 RCTs formed a “radiating star”. The fixed effects model was the best-fitting model. There was reasonable agreement between the number of unconstrained data points, residual deviance and pair-wise results, suggesting a coherent network. Statistically significant results compared with warfarin: reduction in ischaemic stroke with dabigatran (OR 0.78; 95% Credible Interval [95% CI]: 0.60–1.00); reduction in SE with rivaroxaban (OR 0.24; 95% CI: 0.07–0.54); reduction in minor extracranial bleeds with dabigatran (OR 0.88; 95% CI: 0.82–0.96) and aspirin (OR 0.57; 95% CI: 0.45–0.73); reduction in intracranial bleeds with dabigatran (OR 1.41; 95% CI: 0.27–6.0) and rivaroxaban (OR 0.66; 95% CI: 0.46–0.92); increase in myocardial infarction with dabigatran (OR 1.43; 95% CI: 1.02–1.97); and increase in discontinuations with dabigatran (OR 1.36; 95% CI: 1.24–1.48). CONCLUSIONS: This research suggests dabigatran and rivaroxaban may offer different clinical benefits and harms in patients with NVAF compared with warfarin.

PCV8 ASSESSMENT OF 30-DAY REHOSPITALIZATION FOR ACUTE MYOCARDIAL INFARCTION IN PATIENTS WITH ACUTE CORONARY SYNDROME WHO RECEIVED PERCUTANEOUS CORONARY INTERVENTION: A COMPARATIVE EFFECTIVENESS STUDY OF CLOPIDOGREL AND PRASUGREL

Jain V, Faries DE, Ernst RB, Lipkin C2, Zhao Z2, Moret C2
Eli Lilly and Company, Indianapolis, IN, USA, 2Premier Healthcare Alliance, Charlotte, NC, USA

OBJECTIVES: A 30-day rehospitalization rate for acute myocardial infarction (AMI) following hospital discharge among patients with acute coronary syndrome (ACS) who have received percutaneous coronary intervention (PCI) has been adopted as a hospital quality and performance measure. This study sought to compare 30- and 90-day AMI-related rehospitalization rates between ACS-PCI patients receiving clopidogrel versus those receiving prasugrel. METHODS: The study endpoint was pre-specified, and analysis was done under blinding. Using a large geographically diverse US database maintained by PREMIER, the study analyzed AMI-related hospitalizations among ACS-PCI patients receiving either clopidogrel or prasugrel between July 2009 and June 2011. Analysis included patients treated with prasugrel who were identified by the AMI-PCI treatment algorithm, patients who would have benefited for prasugrel treatment per the label. Treatment differences in rehospitalization rate at 30 and 90 days were analyzed. Unadjusted comparisons used chi-square tests. Multivariate logistic regression analyses adjusted for baseline patient differences. RESULTS: The study population included 83,576 patients, of which 74,163 received clopidogrel and 9,403 received prasugrel. For clopidogrel and prasugrel, respectively, the observed AMI-related rehospitalization rates were 4.74% and 3.85% at 30 days (P=0.0001) and 6.27% and 5.13% at 90 days (P=0.0001). Prasugrel was associated with approximately 10% lower odds of AMI-related rehospitalization (Odds ratio=0.892 at 30 days [95% CI: 0.798–0.998]; Odds ratio=0.901 at 90 days [95% CI: 0.817–0.994]). CONCLUSIONS: Compared to clopidogrel-treated patients, prasugrel-treated patients experienced fewer rehospitalizations for AMI at 30 days and 90 days following ACS-PCI discharge. Similar results were obtained after adjusting for baseline patient characteristics. The potential for unmeasured confounder bias is a limitation in this real-world observational research.