duced during a review of the company’s submission (CS) to the National Institute for Health and Care Excellence (NICE) Single Technology Appraisal programme for the oral direct thrombin inhibitor, dabigatran. METHODS: Randomized controlled trials (RCTs) for inclusion were identified using the CS for dabigatran (as part of Technology Appraisal [TA]327), and two similar submissions for rivaroxaban (TA261 and TA287). We included any trial comparing the active intervention and a control group, and those that provided the outcomes of interest. Two reviewers assessed the trial comparability based on patient population, disease severity, and treatments received. A Bayesian MTC was conducted, and fixed and random effects models were explored. Odds ratio (OR) was chosen as the summary statistic for VTE recurrence and major bleed. RESULTS: The network of 9 RCTs formed a “radiating star.” The fixed effects model had the lowest deviance information criterion (DIC) for VTE recurrence and major bleed and so was chosen as the best-fitting model. There was reasonable agreement between the number of unstated data points and the residual deviance for both outcomes. Results compared to dabigatran were (OR and 95% CrI): LMWH OR 0.99 (95% CrI: 0.95–1.07), warfarin OR 0.95 (95% CrI: 0.86–1.03), dabigatran OR 1.01 (95% CrI: 0.88–1.14), rivaroxaban OR 0.82 (95% CrI: 0.64–1.05), and NO data available on major bleed for rivaroxaban in people with active cancer. CONCLUSIONS: There were no significant differences in the outcomes evaluated. However, the available evidence suggests that LMWH may have the lowest risk of VTE recurrence in the treatments assessed.

PCV2

ASSOCIATION BETWEEN ADHERENCE TO EVIDENCE-BASED HEART FAILURE DRUG TREATMENT AND ONE-YEAR ALL-CAUSE HOSPITALIZATION AND ALL-CAUSE MORTALITY

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OBJECTIVES: To assess the association between adherence to heart failure (HF) evidenced-based treatment (i.e., β-blocker plus renin-angiotensin system inhibitor or angiotensin receptor blocker or hydralazine + isosorbide dinitrate), and 1) one-year all-cause hospitalization and 2) one-year all-cause mortality, among people hospitalized for HF. METHODS: We conducted two nested case-control studies using Quebec (Canada) medic行政数据stores. We selected cases and controls in a cohort made of Quebec residents ≥ 18 years who had a first diagnosis of HF between 01/01/2000 and 12/31/2009 and who did not use HF evidence-based treatment during the first year of diagnosis. Cases were hospitalized or who died in the year after HF diagnosis. Each case was randomly matched to 4 to 10 controls using incidence density sampling. Adherence to HF evidenced-based treatment was assessed using the proportion of days covered (PDC). Odds ratios (OR) were calculated using conditional multivariable logistic regressions. RESULTS: Among the 125,622 individuals in the cohort, 70,483 (56.1%) were hospitalized and 19,915 (15.9%) died during the first year after diagnosis. Only 7.5% of hospitalization cases, 8.0% of death cases and 9.5% of death cases and prescription of death cases had PDC ≥ 80%. Compared to those with a PDC ≥ 80%, patients who had a PDC > 0% and < 80% (OR=1.95 (95% CI=1.33–1.46) OR=0.82 (95% CI=1.48–1.58) were more likely to be hospitalized within the first year after diagnosis. Similarly, compared to those with a PDC ≥ 80%, patients who had a PDC > 0% and < 80% (OR=1.72 (95% CI=1.59–1.86) OR=0.82 (95% CI=0.26 (13.2-2.4) were more likely to die during the year after diagnosis. CONCLUSIONS: Adherence to HF evidence-based treatment was suboptimal and low adherence could increase the risk of hospitalization and have a detrimental effect on survival of HF patients.

PCV2

SYSTEMATIC REVIEW AND META-ANALYSIS OF SELF-MONITORING AND SELF-MANAGEMENT OF ANTI-CAOAGULATION THERAPY WITH VITAMIN K ANTAGONISTS (CUMARINS) COMPARED TO STANDARD AMBULATORY CARE.

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OBJECTIVES: The introduction of prothrombin time (INR) point-of-care devices permits patient self-testing of the INR values and subsequently, also self-adjustment of the dosing regimen. The purpose of this systematic review was to evaluate recent findings regarding the effects of self-monitoring and self-management of anticoagulation therapy with vitamin K antagonists (coumarins) compared to the standard ambulatory care. METHODS: A comprehensive literature search using OVID MEDLINE (1946 – April 2015) and EMBASE (1974 – April 2015) databases was performed. Selection criteria were restricted to randomized controlled clinical trials evaluating self-monitoring or self-management with standard care as control. Meta-analysis was performed in Review Manager Computer program (Version 5.3.) using a fixed-effect model with the Mantel-Haenszel method to calculate the pooled risk ratios (RR) and their 95% confidence interval (CI) of the following clinical outcomes: thromboembolic events, major haemorrhage, and all-cause mortality. Potential heterogeneity was assessed with I2 statistics. RESULTS: In addition to the 2010 Cochrane review (Self-monitoring and self-management of oral anticoagulation), 10 novel randomized trials were identified, in 3 of them self-monitoring was evaluated, while in the other 7 studies self-management was assessed. Until the April 2015, self-monitoring and self-management was evaluated in 15 randomized trials (14 RCTs, 1 non-RCT) and 12 non-RCTs randomized trials, respectively. Self-management was associated with significant reductions in both thromboembolic events (RR=0.48, 95%CI: 0.35–0.65, p<0.001) and mortality (RR=0.71, 95%CI: 0.55–0.91) while significant effect on major bleedings was found (RR=1.03, 95%CI: 0.77–1.38). In contrast to the 2010 Cochrane review, no significant benefit of self-monitoring could be confirmed: the RRw were 0.91 (95%CI: 0.71–1.16), 0.91 (95%CI: 0.75–1.09), and 0.99 (95%CI: 0.75–1.17) for the thromboembolic events, major bleedings, and all-cause mortality, respectively. CONCLUSIONS: Compared to the standard ambulatory care, patient self-management of the INR values shows beneficial effects on their anticoagulant therapy. Moreover, self-management better improves the probability of the occurrence of thromboembolic events than self-monitoring.

PCV2

NETWORK META-ANALYSIS OF VARIOUS TREATMENT STRATEGIES IN RESISTANT HYPERTENSION


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OBJECTIVES: To compare the cost and effectiveness of aspirin with that of clopidogrel in acute myocardial infarction (AMI) patients from data of Beijing Medical insurance database. METHODS: We randomly selected 10% of patients diagnosed as AMI the first time during January 2012- December 2012 and then followed their inpatient records to September 2013. According to the available evidence, the only effective active treatment strategy, research into future medicinal alternatives in TRHTN seems more effective than spironolactone. In addition, being the only effective active treatment strategy, research into future medicinal alternatives in TRHTN should use spironolactone as an active comparison, and as an obligatory background drug when investigating the effectiveness of device-based alternatives. Furthermore, trials investigating device-based alternatives such as renal denervation should always include sham procedure as a comparator.

PCV2

ASPIRIN VERSUS CLOPIDOGREL IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION: A COST AND EFFECTIVENESS COMPARISON FROM BEIJING MEDICAL INSURANCE DATABASE

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OBSERVATIONS: To compare the cost and effectiveness of aspirin with that of clopidogrel in acute myocardial infarction (AMI) patients from data of Beijing medical insurance database. METHODS: We randomly selected 10% of patients diagnosed as AMI the first time during January 2012- December 2012 and then followed their inpatient records to September 2013. According to the available evidence, the only effective active treatment strategy, research into future medicinal alternatives in TRHTN should use spironolactone as an active comparison, and as an obligatory background drug when investigating the effectiveness of device-based alternatives. Furthermore, trials investigating device-based alternatives such as renal denervation should always include sham procedure as a comparator.

PCV2

LONG-TERM INCREASED INPATIENT AND OUTPATIENT VISITS ASSOCIATED WITH A NEW CARDIOVASCULAR EVENT: A LARGE UNITED STATES REAL WORLD STUDY

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OBJECTIVES: To evaluate the burden to patients and the healthcare system associated with a new cardiovascular event (CVE) up to 3 years post-new CVE among high-risk hyperlipidemia patients. METHODS: Using the IMS LifeLink PharMius Plus commercial claims database we identified high-risk hyperlipidemia patients with and without a new CVE between 01/01/2006 and 06/30/2012. CVEs included primary inpatient claims for myocardial infarction (MI), peripheral arterial disease (PAD), cerebrovascular disease (CVD), and cardiovascular heart failure. Patients were stratified into two CVE risk cohorts: history of cardiovascular disease (CVD) (MI, UA, coronary artery bypass graft, percutaneous coronary intervention, I15) and coronary heart disease risk equivalent (CHD EK) [peripheral arterial disease, abdominal aortic aneurysm, acute coronary syndrome, dyslipidemia]. Propensity score matching was applied to compare the burden among patients with and without a new CVE, ranging from 1 month through 3 years post-CVE date. RESULTS: Using the IMS LifeLink PharMius Plus commercial claims database, this retrospective cohort study included high CVE risk hyperlipidemia patients

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