ducted 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::** Randomised 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). RCTs were assessed for 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 unconstrained data points and the residual deviance for both outcomes. Results compared to dabigatran were (OR>1 favours dabigatran): VTE recurrence LMWH OR 0.96 (95% Credible Interval [95%CrI]: 0.15–3.37), rivaroxaban OR 1.29 (95%CrI: 0.12–5.42), warfarin OR 1.87 (95%CrI: 0.31–6.45); major bleed LMWH OR 0.85 (95%CrI: 0.15–2.67), warfarin OR 0.74 (95%CrI: 0.15–2.15). No data were 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.

PCV20

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) evidence-based treatment (i.e. β-blocker + angiotension-converting enzyme 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 newly diagnosed for HF. **METHODS:** We conducted two nested case-control studies using Quebec (Canada) medico-administrative data. 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 before their diagnosis. Cases were those 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 evidence-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, 9.5% of their controls, 6.9% of death cases and 11.6% of their controls had a PDC ≥ 80%. Compared to those with a PDC ≥ 80%, patients who had a PDC > 0% and < 80% (OR= 1.39 (95% CI=1.33-1.46) or a PDC = 0% (OR=1.53 (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 a PDC = 0% (OR=2.26 (2.13-2.40) were more likely to die during the year after diagnosis. **CONCLUSIONS:** Adherence to HF evidence-based treatment is suboptimal. A low adherence could increase the risk of hospitalization and have a detrimental effect on survival of HF patients.

PCV21

SYSTEMATIC REVIEW AND META-ANALYSIS OF SELF-MONITORING AND SELF-MANAGEMENT OF ANTICOAGULATION THERAPY WITH VITAMIN K ANTAGONISTS

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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 10 (4313 participants) and 19 (5413 participants) 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=0.70, 95%CI: 0.49–0.99, p=0.046), while no 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 RRs were 0.91 (95%CI: 0.71–1.16), 0.91 (95%CI: 0.75–1.10), and 0.94 (95%CI: 0.75–1.17) for the thromboembolic events, major bleedings, and 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.

PCV22

NETWORK META-ANALYSIS OF VARIOUS TREATMENT STRATEGIES IN RESISTANT HYPERTENSION

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OBJECTIVES: Currently, the most commonly applied approach to treatment of resistant hypertension (TRH) is adding on mineralocorticoid receptor antagonists (MRAs) such as spironolactone to existing medication therapy. Newer treatment alternatives for treating resistant hypertension were developed, however comparative effectiveness of these add-on strategies and MRAs is not established. Our objective is to perform a network-meta analysis of add-on treatment alternatives for MRAs in TRHTN and thus establish comparative effectiveness in terms of SBP and DBP reduction. **METHODS:** Recent meta-analyses for renal denervation (RDN) and placebo effect were supplemented with a systematic search for MRAs in TRHTN. Newer renal denervation articles were identified using Pubmed searches. Search terms included Randomized control trials (RCT), TRH, MRAs. We Independently extracted data using a pre-defined data extraction form, including Cohrane study quality indicators and the GRADE criteria. Network meta-analysis techniques were used to compare the effects of add-on treatment alternatives for TRHTN, using spironolactone as a common comparator. **RESULTS:** We identified 16 articles which met our inclusion criteria. The results show that lack of add-on medication therapy leads to markedly higher blood pressure measurements than spironolactone, office SBP 24 [95% CI 2; 48] DBP 7.4 [-2.9; 18]. While add-on placebo medication results in significantly higher blood pressure than add-on spironolactone, SBP 19 [5.7; 32] DBP 8.3[2.3; 14], add-on spironolactone's blood pressure reducing effects equal those of add-on sham operations SBP 0.58 [-28; 29] DBP 0.36 [-12; 13]. **CONCLUSIONS:** Currently, no active, add-on treatment strategy for 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.

PCV23

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

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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 and prescription records to September 2013 from Beijing medical insurance database. We divided these patients into 5 groups according to their drug utilization records during the observation period. 1239 patients were divided into 5 groups according to the proportion of aspirin prescription by 100.0%, 60.1-99.9%, 40.0-60.0%, 0-39.9% and 0(clopidogrel only). We compared the rate of recurrences, cost of anti-platelet drugs and rate of hemorrhage events in different drug utilization groups. The Kruskal-Wallis test and Bartlett's test were used in the analysis. **RESULTS:** 1239 patients were identified(age 65.69±15.51, male 73.69%), 63 (2.54%) patients used aspirin only, 761 (61.42%) patients used aspirin more(60-100%), 289 (23.33%) patients used 40-60% aspirin, 116 (9.36%) patients used aspirin 0-40% and 10 (0.83%) patients used clopidogrel only. The MI recurrence rates for patients of different prescription groups were significantly different(p<0.01), patients with only aspirin utilization recurred less than that of patients with 60-100% aspirin and 40-60% aspirin prescription, patients with 0-40% aspirin prescription recurred less than that of patients with 60-100% aspirin prescription. The cost of anti-platelet drugs for patients of different drug groups was significantly different(p<0.01), The hemorrhage rate of patients with only aspirin prescription was higher than that of patients with two drugs. **CONCLUSIONS:** A small proportion of AMI patients used only one drug for anti-platelet treatment, while most patients used both aspirin and clopidogrel. Patients who used aspirin only had lower cost of anti-platelet drugs, lower rate of recurrence and higher rate of hemorrhage events. Further studies on cost-effectiveness for aspirin and clopidogrel would provide moret evidence.

PCV24

LONG-TERM INCREASED INPATIENT AND OUTPATIENT VISITS ASSOCIATED WITH CARDIOVASCULAR EVENTS: 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 (CVEs) up to 3 years post-new CVE among high-risk hyperlipidemia patients. **METHODS:** Using the IMS LifeLink PharMetrics Plus commercial claims database, this retrospective cohort study included high CV 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), unstable angina (UA), ischemic stroke (IS), transient ischemic attack, revascularization and heart failure. Patients were stratified into two CV risk cohorts: history of cardiovascular disease (CVD) [MI, UA, coronary artery bypass graft, percutaneous coronary intervention, IS] and coronary heart disease risk equivalent (CHD RE) [peripheral artery disease, abdominal aortic aneurysm, coronary artery disease, diabetes, 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 PharMetrics Plus commercial claims database, this retrospective cohort study included high CV risk hyperlipidemia patients