developed to evaluate the relative effectiveness between the NOACs and warfarin for the primary efficacy endpoint of stroke or systemic embolism (SE) and primary safety endpoint of major hemorrhage. Secondary endpoints included ischemic stroke, hemorrhagic stroke, SE, myocardial infarction, intracranial hemorrhage, gastrointestinal hemorrhage, cardiovascular-related mortality, and all-cause mortality. A probability of best treatment was calculated for each antithrombotic agent for the NOACs (apixaban, rivaroxaban, and edoxaban) versus warfarin. The analyses identified dabigatran-150mg, rivaroxaban, and warfaran showed significant risk (RR) reductions over warfarin for stroke or SE (RR=0.65, 0.78, 0.79, respectively). However, indirect comparisons did not reveal significant differences between the individual NOACs. For the primary safety endpoint, dabigatran-110mg was significantly better than warfarin (RR=0.81) and rivaroxaban (RR=0.79) whereas apixaban showed significant reduction over warfarin, dabigatran-150mg, and rivaroxaban (RR=0.70, 0.75, 0.69, respectively). Significant differences between the NOACs were also found for secondary endpoints of hemorrhagic stroke, intracranial hemorrhage, and gastrointestinal hemorrhage. The analyses identified apixaban-150mg and axipaban as the best option for the prevention of stroke or SE and major hemorrhage, respectively.

PCV12

EFFICACY OF HEART FAILURE PHARMACOLOGICAL TREATMENT CLASSES AND COMBINATIONS: NETWORK META-ANALYSES

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OBJECTIVES: To compare efficacy and tolerability of drug classes and combinations for chronic heart failure (CHF) based on randomized evidence (RCTs) to populate an economic model with updated estimates. METHODS: A systematic literature review (2000-2011) identified 54 RCTs of angiotensin converting enzyme inhibitors (ACEI), beta-blockers (BB), angiotensin II receptor blockers (ARB), and aldosterone antagonists (AA). Efficacy and tolerability results of individual studies were compared by network meta-analysis of regimens which could be compared varied, depending on the outcome considered. For all-cause deaths and left-ventricular ejection fraction (LVEF), 10 regimens could be included: (ACEI; BB; ARB; ACE+BB; ARB+ACE; AA+ACE; BB+ACE or ARB; BB+ACE+ARB; BB+AA; BB+ARB or AA; ACE+ARB); for other outcomes, up to five of these regimens could be included. All-cause death risk was estimated using a fixed-effects model. Network meta-analysis was performed using the best results. RESULTS: No significant difference was found for any of the comparisons for any outcome. There was no evidence of treatment effects were modified by fixed effects. CONCLUSIONS: Network meta-analysis allow the estimation and comparisons of efficacy and tolerability of HF drug classes and combinations. The ranking of treatments from best to worst varied across outcomes, but an overall conclusion was that combinations were the most effective without being necessarily the least tolerable.

PCV13

ARE STATINS EFFECTIVE TO PREVENT FIRST NON-FATAL MYOCARDIAL INFARCTION IN REAL LIFE IN A LOW-RISK COUNTRY? A POPULATION-BASED CASE-REFERENT STUDY USING THE PGKR INFORMATION SYSTEM

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OBJECTIVES: To assess the impact of real life statin utilization on the risk of first non-fatal myocardial infarction (MI) in France in a population-based case-referent study using the pharmacoeconomicinformation system ‘PGKR’. Data on comorbidities, risk factors, and medications were obtained from medical records and patient telephone interviews. General practices (n=371) and cardiology centres (n=60) across France were employed in the study. Cases were patients with the first MI ≤1 month before the date of recruitment (n=2238). Controls were patients seen by a general practitioner with no restriction to the reasons of consultation (n=2238), matched to MI cases on gender, age, frequency of visits to a doctor, date of recruitment and personal history of non-cardiovascular chronic disease. Statin exposure was defined as any utilisation in the two-year prior to date of MI in cases or recruitment date in controls. Adjusted odds ratios (OR) of the risk of first MI was estimated by multiple conditional logistic regression models. Comparison meta-analyses allow the comparison of estimators of efficacy and tolerability of the most used drugs and combinations. The results could be of interest and applicable to other industrialised countries as the observed risk reduction was constant across MI risk levels.

PCV14

COLESEVELAM FOR THE TREATMENT OF HYPERLIPIDEMIA: A RETROSPECTIVE ‘REAL-WORLD’ ANALYSIS FROM AN INTEGRATED HEALTH SYSTEM

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OBJECTIVES: To examine effectiveness of Colesevelam in reducing low-density lipoprotein cholesterol (LDL-C) among patients with hyperlipidemia (HL) in the real-world setting. METHODS: In this retrospective study, patients with HL were identified through electronic health records, who were ≥18 years old, and had an initial order for colesevelam between Jan 2004 and Dec 2011, an LDL-C value within ±4 months of the initial order date (baseline), and ≥12 months of LDL follow-up and continuous colesevelam treatment. Outcome measures were LDL-C and the percent of patients at the appropriate LDL-C goal based on NCEP ATP III guidelines. Generalized estimating equation models were used to assess differences in LDL-C outcomes between baseline and twelve months, adjusting for covariates including statin and other medication use. A p-value <0.05 was considered statistically significant. Missing data were imputed by linear interpolation. Sensitivity analysis with and without imputation was performed. RESULTS: A total of 468 patients met the predefined inclusion criteria and had a mean age of 63 years old. Of these patients, 48.7% were females and 73.3% had prior statin use. Mean change in LDL-C in baseline from 12 months was -11.4 mg/dL (p=0.0001), a relative decrease of 9.6%. The percent of patients at LDL-C goal at baseline was 42.3%, which increased to 56.2% (p<0.0001) at 12 months. CONCLUSIONS: Long-term, continuous colesevelam treatment was associated with a significant reduction in LDL-C and an increase in the percent of patients achieving LDL-C goal from baseline. This is the first ‘real-world’ analysis demonstrating the benefits of colesevelam among patients with HL in a community-based integrated health system. The LDL-C lowering results parallel findings from pivotal clinical trials.

PCV15

BIAS-CORRECTED INDIRECT COMPARISON META-ANALYSIS OF NEW ORAL ANTICOAGULANT IN ATRIAL FIBRILLATION

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OBJECTIVES: Meta-epidemiological studies have shown that open-label trials were potentially biased and, in average, overestimate treatment effect magnitude by about 14% compared to double-blind trials. In network meta-analysis where the types of trials are present, this bias could influence indirect comparisons and favor the less rigorous trials. The objective was to estimate the relative efficacy of apixaban compared to other new anticoagulants (NOAC) in stroke and systemic embolism prevention in atrial fibrillation (AF) using indirect contrast meta-analysis and taking into account the bias of open-label trial such RELY (dabigatran). METHODS: We performed a systematic literature review to identify all RCTs evaluating NOAC in AF. Adjusted indirect comparisons and bias correction were conducted using meta-analysis tools derived from those described by Bucher et al. and Welton et al., respectively. The magnitude of the bias induced in treatment effect estimation from these sources was estimated and used to bias-individual indirect comparisons and favor the less rigorous trials. Our objective was to estimate the relative efficacy of apixaban compared to other new anticoagulants (NOAC) in stroke and systemic embolism prevention in atrial fibrillation (AF) using indirect contrast meta-analysis and taking into account the bias of open-label trial such RELY (dabigatran). RESULTS: A total of 13,486 patients were included in this analysis. The analysis was performed using the best results. CONCLUSIONS: After correction for the potential bias of the phase 3 trial of dabigatran due to the open-label design, indirect comparisons of the apixaban to dabigatran showed no significant difference in terms of stroke or systemic embolism and ischemic stroke for the 2 doses. Further research on a AF specific bias estimation should be undertaken to better understand the magnitude of the possible effect size overestimation in RELY open-label study.

PCV16

USE OF ACE INHIBITORS IN SERBIA IN 2009 AND 2010

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OBJECTIVES: Cardiovascular diseases are the most frequent cause of morbidity and mortality in many countries. That explains why medications for the treatment of cardiovascular diseases are the most used group of drugs. The aim of the study was to analyze the consumption of ACE inhibitors in Serbia during 2009 and 2010 year from pharmacotherapeutical and pharmacoeconomic point of view. METHODS: The data about the use of ACE inhibitors were taken from the Agency for Drugs and Medical Devices of the Serbia. RESULTS: During both analyzed years significant part of consumption of ACE inhibitors was taken by more expensive drugs in Serbia. The data about the use of ACE inhibitors were taken from the Agency for Drugs and Medical Devices of the Serbia. OBJECTIVES: To analyze the consumption of ACE inhibitors in Serbia during 2009 and 2010 year from pharmacotherapeutical and pharmacoeconomic point of view. METHODS: The data about the use of ACE inhibitors were taken from the Agency for Drugs and Medical Devices of the Serbia. RESULTS: During both analyzed years significant part of consumption of ACE inhibitors was taken by more expensive drugs in Serbia. The data about the use of ACE inhibitors were taken from the Agency for Drugs and Medical Devices of the Serbia. OBJECTIVES: To analyze the consumption of ACE inhibitors in Serbia during 2009 and 2010 year from pharmacotherapeutical and pharmacoeconomic point of view. METHODS: The data about the use of ACE inhibitors were taken from the Agency for Drugs and Medical Devices of the Serbia. RESULTS: During both analyzed years significant part of consumption of ACE inhibitors was taken by more expensive drugs in Serbia. The data about the use of ACE inhibitors were taken from the Agency for Drugs and Medical Devices of the Serbia.

CONCLUSIONS: During both analyzed years significant part of consumption of ACE inhibitors was taken by more expensive drugs in Serbia. The data about the use of ACE inhibitors were taken from the Agency for Drugs and Medical Devices of the Serbia.