

**OBJECTIVES:** To critically appraise the published network meta-analyses (NMAs) evaluating the efficacy or safety of the new oral anticoagulants (NOACs) dabigatran, rivaroxaban and apixaban for the prevention of stroke in patients with non-valvular atrial fibrillation (AF). **METHODS:** A systematic literature review was performed to identify the relevant NMAs using MEDLINE®, EMBASE®, Cochrane Library, Database of Abstracts of Reviews of Effects, and Health Technology Assessment. The synthesis studies were evaluated using the 'Questionnaire to assess the relevance and credibility of the NMA'. **RESULTS:** Eleven NMAs evaluating NOACs among adults with non-valvular AF were identified. Most NMAs included three large phase III RCTs, comparing NOACs to adjusted-dose warfarin (RE-LY, ROCKET-AF, ARISTOTLE). The main differences identified related to potential treatment effect modifiers regarding the mean time spent in therapeutic range (TTR) in the warfarin arm, the risk of stroke or systemic embolism across the trials (mean CHADS<sub>2</sub> score: Cardiac failure, Hypertension, Age ≥ 75 years, Diabetes mellitus, Stroke, 2 two points for stroke) or primary versus secondary prevention, and type of populations used in the analysis. Kansal et al. appropriately adjusted the ROCKET-AF TTR to match the RE-LY population based on individual patient data. Meta-regressions are not expected to minimize confounding bias given limited data, whereas subgroup analyses had some impact on the point estimates for the treatment comparisons. **CONCLUSIONS:** Results of the synthesis studies were generally comparable and suggested the NOACs had similar efficacy, although some differences were identified depending on the outcome. The extent to which the differences in the distribution of TTR, CHADS<sub>2</sub> or primary versus secondary prevention biased the results remains unclear.

## PCV19

## TARGETED LITERATURE REVIEW OF UNMET NEED IN THE HYPERLIPIDAEMIA POPULATION WITH HIGH RISK OF CARDIOVASCULAR DISEASE

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**OBJECTIVES:** To examine recommended target levels of low-density lipoprotein cholesterol (LDL-C) for hyperlipidaemia patients at high risk (i.e., with two or more risk factors or coronary heart disease or its risk equivalents) for cardiovascular disease (CVD); to determine the proportions of patients who do not achieve targeted LDL-C levels in real-world setting studies. **METHODS:** A targeted literature review identified guidelines and real-world studies that analysed hyperlipidaemia patients who were not at goal (as defined by study). MEDLINE, Embase, the Cochrane Library, and BIOSIS databases were searched. Guideline publications were searched from 2008; observational studies were searched from January 2005 to December 2013. There were no language or geographical restrictions. **RESULTS:** 17 guidelines and 70 observational studies were included in the review. While country-specific guideline recommendations vary slightly, the commonly used European Atherosclerosis Society and European Society of Cardiology (EAS/ESC) guidelines recommend a LDL-C target of < 2.5 mmol/L for patients with high CVD risk. Most studies reported that between 61.8% and 95.4% of high-risk patients did not reach this target. 3 studies from North America reported lower proportions, between 18.9% and 42.3%. The EAS/ESC guidelines recommend a LDL-C target of < 1.8 mmol/L for patients with very high CVD risk. Studies reported that 68.1% to 96.0% of patients do not achieve this goal. **CONCLUSIONS:** Patients in higher cardiovascular-risk categories tend to have more stringent LDL-C target levels, which may contribute to failure to achieve target levels. This suggests several unmet needs: large numbers of patients who fail to achieve LDL-C targets, reducing the patients' risk for CVD, and consequently reduce the occurrence of cardiovascular events. Based on recently published American College of Cardiology and American Heart Association guidelines, which do not recommend a treatment target LDL-C level, further research is needed to re-evaluate the unmet need in hyperlipidaemia patients.

## PCV20

STUDY ON DRUG UTILIZATION AND ASSESSMENT OF STROKE RISK USING CHADS<sub>2</sub> AND CHA<sub>2</sub>DS<sub>2</sub>-VASc SCORING IN ELDERLY PATIENTS WITH NON-VALVULAR ATRIAL FIBRILLATION

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**OBJECTIVES:** Stroke Risk Stratification in AF patients of can be done using CHADS<sub>2</sub> (Congestive heart failure, Hypertension, Age ≥75, DM, prior Stroke/TIA [2 points]); or CHA<sub>2</sub>DS<sub>2</sub>VASc<sub>2</sub> (Congestive heart failure/left ventricular ejection fraction ≤35%, Hypertension, Age ≥75 [2 points], DM, prior Stroke/TIA/thromboembolism [2 points], Vascular disease, Age 65-74, Sex- female). Treatment options for Prevention of stroke includes Anti-coagulants (Vitamin K Antagonist-Warfarin, Acenocoumarol; and Newer Oral Anticoagulant- Dabigatran) and anti-platelets (Aspirin and Clopidogrel). The objective of this study was to assess better tool for Stroke Risk Stratification; CHADS<sub>2</sub> vs CHA<sub>2</sub>DS<sub>2</sub>VASc<sub>2</sub> and to observe utilization pattern of antithrombotics with stroke as the outcome. **METHODS:** Elderly patients (Age>65yrs) with Non-Valvular Atrial Fibrillation admitted in the hospital within span of 2yrs (2012-13) were selected excluding patients with comorbidities like Atrial flutter, DVT, PFO, Endocarditis and/or ARF (after approval of ethical committee). Total of 160 patients were segregated based on stroke risk and percentage of patients experiencing thromboembolic event in each group was observed and CHADS<sub>2</sub> and CHA<sub>2</sub>DS<sub>2</sub>-VASc were compared. The efficacy of antithrombotics in prevention of thromboembolic event in patients with AF was studied. **RESULTS:** For stroke risk stratification, CHA<sub>2</sub>DS<sub>2</sub>-VASc was observed to be a better tool than CHADS<sub>2</sub> to predict 'truly low risk', 'moderate risk' and 'high risk' patients. A shift of AF patients from 'low-moderate risk' by CHADS<sub>2</sub> to 'high risk' by CHA<sub>2</sub>DS<sub>2</sub>VASc was noticed, 95% of patients required anticoagulation (either VKA or NOACs) as per CHA<sub>2</sub>DS<sub>2</sub>VASc, whereas, only 60% required OACs as per CHADS<sub>2</sub>. Most patients who experienced CVA belonged to 'No antithrombotics prescribed' group (25%). Dabigatran showed no incidence of CVA outcome, followed by VKA-, (Warfarin-28% and Acenocoumarol-18%) and least efficacy was seen by

Antiplatelets-30%. **CONCLUSIONS:** CHA<sub>2</sub>DS<sub>2</sub>-VASc showed better prediction than CHADS<sub>2</sub> for stroke risk prediction. Dabigatran was observed to have better outcome followed by VKA and Anti-platelets.

## PCV21

## MANAGEMENT OF CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION:

## CLINICAL AND REPORTED OUTCOMES FROM A REFERRAL HOSPITAL IN SPAIN

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**OBJECTIVES:** To evaluate the management of Chronic Thromboembolic Pulmonary Hypertension (CTEPH) in a referral hospital by assessing clinical variables, patient-reported outcomes and caregivers' burden. **METHODS:** An observational, retrospective study was conducted. All patients (aged >18 years) attending the specialised unit on CTEPH at the 12 de Octubre Hospital (Spain), between January 2010 and November 2012, were offered to participate. Clinical variables were recorded at the clinical session for treatment decision (Pulmonary endarterectomy -PEA- if operability was confirmed or medication therapy -MT- if inoperable), and after one year. Outcomes considered: The New York Heart Association Functional Class (FC), 6-Minute Walking Distance, pulmonary arterial pressure, pulmonary vascular resistance and pro-brain natriuretic peptide. Participants completed the EQ-5D and caregivers' fulfilled the Zarit Burden Interview. Differences between groups were studied (Chi-squared, Mann-Whitney U and ANCOVA). **RESULTS:** A total of 64 CTEPH cases (57.8% males) were included. Mean (SD) age at diagnosis was 55.8 (14.9) and 67.2% had an III-IV FC at diagnosis. At the moment of treatment prescription, differences in clinical variables were not found (all p>0.4) between PEA (n=35-54.7%) and MT groups (n=29-45.3%). After 12 months, 8 patients died (2 in PEA group and 6 in MT). Among survivors, FC was significantly better in PEA group (93.9% improved at least one level). Regarding EQ-5D, patients undergoing PEA showed significant higher utilities (0.83-0.17- vs. 0.53-0.31-p=0.007) and VAS values (80.22-14.24- vs. 49.47-20.68-p<0.001). Furthermore, mean VAS values in PEA group were comparable to general population (adjusted by sex and age). Finally, formal care was needed by just 4.8% of patients in PEA versus 33.3% in MT. Reported caregivers' burden were relatively low in both groups (p=0.87). **CONCLUSIONS:** The positive outcomes obtained, especially in those patients undergoing PEA, suggest the experienced management of CTEPH by this referral hospital and highlights the importance of detecting candidates for PEA.

## PCV22

## THE 3.5-YEAR MORTALITY IMPACT OF DRUGS IN SECONDARY PREVENTION OF MYOCARDIAL INFARCTION IN REAL-LIFE (INTERIM ANALYSIS OF THE EOLE COHORT)

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**OBJECTIVES:** Few studies have assessed the real-life impact of secondary prevention drugs on all-cause mortality post-myocardial infarction (MI), especially in countries with low incidence of MI. The objective of this interim analysis after 3.5-year of follow-up was to assess the real-life all-cause mortality impact of drugs reimbursed for MI secondary prevention in France: acetylsalicylic acid (ASA), anti-platelet agents (APA), beta-blockers (β-), angiotensin converting enzyme inhibitors (ACEI), statins, and omega-3 supplementation (Om3). **METHODS:** Cohort study of patients with recent (≤3 months) acute MI included by hospital and non-hospital cardiologists, with 6-year follow-up. Vital status was obtained from the National death registry, and failing that by patient/relatives/physicians investigation. Drug exposure was defined using both physician and patient reports at inclusion. Cox proportional hazard model was used to estimate for each drug, mortality hazard ratio (HR) of exposed versus non exposed patients, adjusted for gender, age, cardiovascular risk factors, other MI prevention drugs, and propensity score to be exposed at inclusion. **RESULTS:** Between May 2006 and June 2009, 596 physicians included 5538 patients: mean age 62.1 years, 77.6% male, 9.6% current smokers, 14.5% diabetic, 44.6% hypercholesterolemic, 43.6% hypertensive, 8.2% with LVEF <40%. At inclusion, 97.5% were exposed to ASA, 91.0% to APA, 89.7% to β-, 71.1% to ACEI, 92.0% to statins, and 15.7% to Om3. The 3.5-year mortality was 7.8% (95%CI [7.1%-8.5%]) with an incidence rate of 23.2 per 1000 patient-years. Adjusted HR were: 0.98 [0.60-1.61] for ASA, 0.86 [0.60-1.24] for APA, 0.84 [0.63-1.11] for β-, 0.80 [0.61-1.03] for ACEI, 0.67 [0.45-1.00] for statins, and 0.82 [0.58-1.16] for Om3. **CONCLUSIONS:** The 3.5 year interim all-cause real-life death reduction point estimates were close to those of large randomized controlled trials, except for ASA, for which almost all patients were exposed. The study's statistical power will be sufficient to confirm or not these trends at the final 6-year analysis.

## PCV23

## A DATABASE ANALYSIS OF PATIENTS ELIGIBLE FOR SECOND-LINE LIPID-LOWERING TREATMENT FOR HYPERCHOLESTEROLAEMIA IN ENGLAND

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**OBJECTIVES:** In 2012, the NHS Health and Social Care Information Centre (HSCIC), with support from NICE, reported on the eligible population for ezetimibe as a second-line lipid-lowering therapy (LIT) in England. Several populations were omitted from this analysis, including some very high-risk Type 2 Diabetes Mellitus (T2DM) patients with CVD. We re-evaluated the eligible population for ezetimibe indicated for treatment intensification in a retrospective analysis. **METHODS:** Patients with ≥1 total cholesterol (TC) measure in each year of interest were iden-