A trial designed to evaluate the lifetime clinical and economic impact of six-month treatment with apixaban was undertaken for the perspective of the UK National Health Service. Six-month treatment with apixaban was predicted to increase life expectancy and QALYs as compared to LMWH/edoxaban.

**OBJECTIVES:** 
- To identify the effectiveness of triple antihypertensive combination therapy for patients with resistant hypertension in Taiwan.
- To compare the effectiveness of triple antihypertensive combination therapy for patients with resistant hypertension in Taiwan.

**METHODS:** 
- A total of 3,928 patients with resistant hypertension were identified at 93 hospitals in Taiwan from January 2009 to December 2013.
- The mean blood pressure (BP) at baseline was 169±15/106±7 mmHg.
- The average age of the patients was 61±12 years.
- The mean duration of hypertension was 12±7 years.
- The mean number of antihypertensive drugs taken at baseline was 2.9±1.4.
- The mean weight was 72.4±11.8 kg.
- The mean BMI was 24.4±3.6 kg/m².
- The mean serum creatinine was 0.95±0.22 mg/dL.
- The mean eGFR was 71.2±20.3 mL/min/1.73 m².

**RESULTS:** 
- The mean BP at baseline was 169±15/106±7 mmHg.
- The mean weight was 72.4±11.8 kg.
- The mean BMI was 24.4±3.6 kg/m².
- The mean serum creatinine was 0.95±0.22 mg/dL.
- The mean eGFR was 71.2±20.3 mL/min/1.73 m².

**CONCLUSIONS:** 
- Triple antihypertensive combination therapy for patients with resistant hypertension in Taiwan was effective and safe.
- Further research is needed to evaluate the long-term outcomes of this therapy.

**A375**

**PCV8**

**PATIENT PROFILE OF NEW USERS OF NOVEL ORAL ANTICOAGULANTS IN NON-VALVULAR ATRIAL FIBRILLATION (NVAF): REAL-WORLD EVIDENCE FROM PRIMARY CARE DATA IN GERMANY**

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**OBJECTIVES:** 
- To describe the demographics and clinical characteristics of patients with NVAF who were prescribed with NOACs.
- To report the economic impact of NOACs prescription in Germany.

**METHODS:** 
- Retrospective cohort study of patients with NVAF who were newly prescribed with NOACs (index prescription) from December 2012 and October 2014, using German primary care data from IMS Health.
- Multivariate Cox proportional regression analysis was performed to investigate the risk factors for mortality.

**RESULTS:** 
- There were 13,551 patients identified as the prevalence cases of NVAF during 2004-2006. Results showed the A+C+D group had a lower risk of mortality (HR = 1.01; 95%CI 0.99-1.03; p = 0.227).
- Subgroup analysis showed there was no significant difference in the risk of MACE between the A+B+C group and the A+C+D group either in patients with prior stroke history (HR = 1.10; 95%CI 0.96-1.25; p = 0.180) or without prior history of stroke, myocardial Infarction or end stage renal failure. Results showed: 13,551 patients identified as the prevalence cases of NVAF during 2004-2006.

**CONCLUSIONS:** 
- The A+C+D combination therapy seemed to be more effective than the A+B+C therapy in preventing MACE among patients with NVAF.

**PCV12**

**NETWORK META-ANALYSIS TO ASSESS COMPARATIVE EFFECTIVENESS OF NOAC THERAPIES IN PATIENTS WITH HEART FAILURE AND REDUCED FRACTION**

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**OBJECTIVES:** 
- To assess the comparative effectiveness of NOAC therapies in patients with heart failure and reduced fraction.

**METHODS:** 
- Randomized trials that showed blockade of beta adrenergic receptors leads to symptomatic improvement, reduced hospitalization and end-organ damage (with heart failure) were included in our meta-analysis.

**RESULTS:** 
- There were 830 references and found 21 randomized trials in 23,122 patients with 3,871 events. The treatments included in our study were Enalapril (E), Metoprolol (M), Atefenol (A), Bisoprolol (Bi), Bucindolol (Bu), Carvedilol (C), Metoprolol (M), Nebivolol (N) and placebo (P).

**CONCLUSIONS:** 
- Network meta-analysis showed that carvedilol ranks highest among beta-blockers for reduction in mortality in patients with heart failure and reduced ejection fraction.

**PCV13**

**COST-EFFECTIVENESS OF APIXABAN COMPARED TO LOW MOLECULAR WEIGHT HEPARIN/ EDOSAXAN FOR TREATMENT AND PREVENTION OF RECURRENT VENOUS THROMBOEMBOLISM**

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**OBJECTIVES:** 
- To assess the cost-effectiveness of apixaban compared to LMWH/edoxaban for the treatment and prevention of recurrent venous thromboembolism (VTE).

**METHODS:** 
- A Markov model was developed to evaluate the lifetime clinical and economic impact of six-month treatment following a VTE event with apixaban versus LMWH/edoxaban. The model included death due to recurrent VTE, thromboembolism, non-maj or bleed, chronic thromboembolic pulmonary hypertension, and death.

**RESULTS:** 
- Transition rates among health states were based upon AMPLIFY and AMPLIFY-EXT data. Network meta-analysis, network meta-regression, and other quantitative methods were based on published estimates. Price parity with apixaban was assumed in the absence of any pricing information for edoxaban. Outcomes were life-years gained, QALYs gained, costs estimated in 2012 British pounds, and the incremental cost-effectiveness ratio (ICER).

**CONCLUSIONS:** 
- Six-month treatment with apixaban was predicted to increase life expectancy and QALYs as compared to LMWH/edoxaban over a lifetime horizon. When these treatments were priced at parity, apixaban was associated with cost-savings due to avoided bleeds and higher cost of LMWH. Dominance was maintained even when edoxaban was priced at an 18% discount.
to apixaban. One-way and probabilistic sensitivity analyses indicated that model conclusions were robust across a wide range of inputs. CONCLUSIONS: Apixaban appears to be a dominant alternative to LMWH/edoxaban for the treatment and prevention of VTE.

PCV14 REAL-WORLD EFFECTIVENESS OF AMLODIPINE/VALSARTAN/HYDROCLOROTHIAZIDE SINGLE-PILL COMBINATION IN THE TREATMENT OF PATIENTS WITH ESSENTIAL HYPERTENSION

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OBJECTIVES: Uncontrolled hypertension remains a major problem for health care systems worldwide, being strictly related to a persistently elevated burden of cardiovascular morbidity and mortality. Because of the multifactorial nature of hypertension, the pharmacological starting point is combination therapy to achieve blood pressure (BP) control. This analysis aimed to further investigate the effectiveness of amlopidine/valsartan/hydrochlorothiazide (A+V+H) single-pill combination in lowering the BP of hypertensive patients, previously assessed in an observational study. METHODS: This was a real-world, open-label, observational study conducted in 7132 patients diagnosed with essential hypertension and for whom treatment with A+V+H was indicated according to clinical practice. The observational period was 3 months. Descriptive analysis, hypothesis testing and linear regression models were performed. RESULTS: The reduction in systolic blood pressure (RSP) between baseline and last visit was 25.7±17.51 mmHg (means±SD) while the reduction in diastolic blood pressure (RDP) was 11.9±4.0 63 mmHg (means±SD). A t-test showed that both reductions are statistically significant (p<0.001). Multiple linear regression models were fitted to RSP and RDP, to assess the influence of patients’ characteristics, comorbidities and previous treatments. CONCLUSIONS: Although significant, the model covariates were not sufficient to explain the reduction in SP and DP (11% and 13% explained, respectively) found between the baseline assessment and last visit. Nonetheless, the relative effectiveness of the various drug combinations relevant to characterize hypertension were included in the study, the results allow to conclude that reduction found is mainly explained by the treatment with A+V+H single pill combination.

PCV15 A MIXED TREATMENT COMPARISON (MTC) TO COMPARE THE EFFICACY OF ANTI-THROMBOCYTE AGENTS IN TREATMENT AND SECONDARY PREVENTION OF VENOUS THROMBOEMBOLISM (VTE) IN PATIENTS WITH DEEP VEIN THROMBOSIS (DVT)

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CONCLUSIONS: New oral anticoagulants (NOACs) are available for the treatment and prevention of VTE, but evidence on their clinical effectiveness compared with existing treatments is limited. We conducted a clinical effectiveness evaluation of edoxaban, dabigatran and rivaroxaban using adjusted standard dose warfarin (warfarin) as a common comparator in patients with index DVT. This research was conducted 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 factor Xa inhibitor, edoxaban. METHODS: Randomised controlled trials (RCTs) for inclusion were identified using the CS for edoxaban (as part of Technology Appraisal [TA] 600). We assessed RCTs for comparability based on patient population, disease severity, and treatments received. We conducted a Bayesian MTC and explored fixed and random effects models. Odds ratio (OR) was the summary statistic for VTE recurrence and major bleed. RESULTS: The network of RCTs formed a “radiating star.” The Deviance Information Criterion (DIC) and the residual deviance with the number of unconstrained data points for both outcomes showed fixed and random effects models were equally good fit. Due to the small number of studies and the shape of the network, the results from the fixed effects model are presented. Results compared to warfarin were (OR) favoured warfarin: VTE recurrence edoxaban OR 0.95 (95% CrI: 0.60–1.40), dabigatran OR 1.27 (95% CrI: 0.78–1.97), rivaroxaban OR 0.64 (95% CrI: 0.40–0.96), major bleed edoxaban OR 0.84 (95% CrI: 0.48–1.35), dabigatran OR 0.83 (95% CrI: 0.50–1.31), rivaroxaban OR 0.92 (95% CrI: 0.37–1.90). CONCLUSIONS: Rivaroxaban demonstrated a 36% reduction in risk of VTE recurrence compared to warfarin that was statistically significant at the 5% level. We did not identify other significant differences either when comparing NOACs to warfarin or when comparing NOACs with each other.

PCV16 COMPARATIVE EFFECTIVENESS OF TIACGRELOR VS. PRASUGREL IN PATIENTS WITH ACUTE CORONARY SYNDROME

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OBJECTIVES: Randomized controlled trials have provided evidence that both prasugrel and ticagrelor significantly reduce complications in patients with acute coronary syndrome (ACS). However, no head-to-head comparisons were performed between these third-generation drugs. The aim of this study was to compare the hospital administrative rates between patients receiving ticagrelor and prasugrel for secondary percutaneous coronary intervention (PCI). METHODS: A retrospective cohort study was designed to compare all cause hospitalization over 365 days post PCI discharge. Patients who received PCI with an ACS hospitalization between January 2012 and December 2013 were extracted from the Truven Health Analytics MarketScan database. Eligible patients filled either a prasugrel or ticagrelor prescription within 14 days from the discharge date. To be included in the analytic cohort, patients needed to be continuously enrolled in the data over six-months prior to the index admission, and comorbid conditions that over period were assessed using Chi-square and Student t-tests for categorical and continuous variables, respectively. In order to select the patients using CMS-1500 forms for the time-to-first hospital re-admission or prevention of VTE. The effectiveness of ticagrelor compared to prasugrel was determined using a Cox-proportional hazard regression model. We controlled for potential confounders whose p-values at the baseline comparison were less than 0.1. RESULTS: A total of 9698 patients received PCI with a primary diagnosis of ACS, with 65.5% treated prasugrel (PR) and 34.4% ticagrelor (TI) at index PCI. hospitalization at 1.056 (95% CI 0.987, 1.258) which was unchanged after adjusting for the potential confounders (HR: 1.056 [95% CI: 0.867 – 1.280]). CONCLUSIONS: The selection of third-generation antiplatelet agents following PCI was not associated with a clinically or statistically significant reduction in hospital re-admission.

PCV17 CAN DATA SIMULATION HELP EVALUATE HTA OUTCOMES OVER TIME AND FACILITATE EARLY DECISION-MAKING? A CASE STUDY OF TICAGRELOR IN ACUTE CORONARY SYNDROME IN THE UK

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BACKGROUND: In October 2011, the National Institute for Health and Care Excellence (NICE) recommended the use of ticagrelor in adult patients presenting with acute coronary syndrome (ACS) in England and Wales. The relative effectiveness and cost-effectiveness of ticagrelor compared to clopidogrel—the current standard care in the NHS—were based on results from one large multicentre study including over 18,000 ACS patients. Patients were recruited from October 2006 to July 2008 and primary trial data analysis was completed in September 2009, demonstrated that ticagrelor significantly reduced the rate of death, myocardial infarction (MI), and/or stroke versus clopidogrel. Delays in completing and reporting on RCTs can impede access to new valuable treatments, however, data simulation may allow for the continuous modelling of trial results and support early HTA submissions. OBJECTIVES: Using a data simulation approach to estimate ticagrelor vs. clopidogrel cost-effectiveness at an earlier time point, we explore whether a trial design with shorter follow-up or the publication of an interim analysis could have resulted in a positive NICE decision at an earlier time point. METHODS: Time-to-event data was extracted from published RCTs for hospital and individual patient data was simulated assuming censoring and recruitment distributions. The relative effectiveness of ticagrelor was assessed as a continuum from 2006 to 2009, and the probability of ticagrelor being cost-effective in the UK was also evaluated over time using a trial-based economic model. RESULTS: Despite increased uncertainty around the probabilities of death, MI and stroke estimated from immature trial data, results suggest that ticagrelor was a cost-effective alternative to clopidogrel before the original continuum months following primary trial analysis. Data simulation allowed us to evaluate HTA outcomes prior to the original planned analysis which, in retrospect, could have led to an earlier NICE recommendation for ticagrelor in ACS.

PCV18 ASPIRIN VERSUS CLOPIDOGREL IN PATIENTS WITH ISENTMIC STROKE: A COST AND EFFECTIVENESS COMPARISON FROM BEIJING MEDICAL INSURANCE DATABASE

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OBJECTIVES: The cost- and effectiveness of aspirin and clopidogrel in ischemic stroke (IS) patients from data of Beijing medical insurance database. METHODS: We randomly selected 10% of patients diagnosed as IS from the first time during January 2012-December 2012 and then followed their inpatient records from the time of IS diagnosis to 13.94 (95% CrI: 0.56–1.39), dabigatran OR 0.92 (95% CrI: 0.37–1.90). CONCLUSIONS: Rivaroxaban demonstrated a 36% reduction in risk of VTE recurrence compared to warfarin that was statistically significant at the 5% level. We did not identify other significant differences either when comparing NOACs to warfarin or when comparing NOACs with each other.

PCV19 A MIXED TREATMENT COMPARISON (MTC) TO COMPARE THE EFFICACY OF ANTI-THROMBOCYTE AGENTS IN TREATMENT AND SECONDARY PREVENTION OF VENOUS THROMBOEMBOLISM (VTE) IN PATIENTS WITH ACTIVE CANCER

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OBJECTIVES: New oral anticoagulants (NOACs) are available for the treatment and prevention of VTE but evidence on their clinical effectiveness compared with existing treatments is limited. This research compared the clinical effectiveness of dabigatran, rivaroxaban, adjusted standard dose warfarin (warfarin) and low molecular weight heparin (LMWH) in people with active cancer following VTE. This research was con-