hydrochlorthiazide. Using the ACCOMPLISH results for valsartan/amlodipine, it is likely to have reasonably low costs per event avoided for the treatment of high risk patients with hypertension in Sweden.

**PCV74**

**ONE-YEAR COST-EFFECTIVENESS OF CYTOCHROME P450 2C19 GENOTYPE-GUIDED ANTIPATELET THERAPY IN PATIENTS WITH ACUTE CORONARY SYNDROMES IN THE UNITED KINGDOM**

**OBJECTIVES:** Cytochrome P450 2C19 (CYP2C19) genotype has been shown to affect cardiovascular (CV) outcomes for clopidogrel but not prasugrel. This study evaluates the incremental cost-effectiveness ratio (ICER) of CYP2C19-guided vs. routine antiplatelet therapy in acute coronary syndrome (ACS) patients in the UK.

**METHODS:** We constructed a literature-based, decision analytic, Markov model to estimate the annual cost-effectiveness of CYP2C19-guided aspirin plus either clopidogrel or prasugrel therapy vs. no genotyping. Post-initial ACS CV events were based on the TRITON-TIMI 38 study and genetic substudy. Cost data sources were: National Health Service (NHS) reference cost for 2008–09—nonfatal MI and stroke, CV death, intracranial hemorrhage, other life-threatening bleed, and minor bleed; Drug Tariff 2009—drugs; www.genetic-health.co.uk/—CYP2C19 genotyping; or US-based reference where converted to £ using appropriate exchange rates—monthly CV disease maintenance cost. Disease-state utilities were obtained from published sources. The model allowed for clopidogrel/prasugrel discontinuation and aspirin monotherapy. Model sensitivity was assessed using a 1-way analysis of parameters varied by quartile or at least 25%. RESULTS: The analysis demonstrated an increase in incremental cost (£81); greater incremental QALY (0.05); and an ICER £1529/QALY for CYP2C19 genotype-guided therapy over 12 months. The model was most sensitive to monthly CV care cost, NFMI cost, proportion of patients on clopidogrel, and life-threatening bleeding cost. The model was least sensitive to the cost of clopidogrel/prasugrel, or CYP2C19 genotyping. CONCLUSIONS: The model-based ICER of £1,529/QALY for the CYP2C19 testing strategy is significantly less than the UK threshold of £20,000 that is considered good value. CYP2C19 genotype-guided clopidogrel or prasugrel therapy is cost-effective for up to 1 year in ACS patients in the UK.

**PCV75**

**CANADIAN COST-EFFECTIVENESS ANALYSIS OF DRONEDARONE VERSUS OTHER ANTI-ARRHYTHMIC DRUGS IN PATIENTS WITH PAROXYSMAL AND PERSISTENT ATRIAL FIBRILLATION**

**OBJECTIVES:** Dronedarone is a novel anti-arrhythmic drug (AAD) that, unlike other AADs, was shown to reduce cardiovascular hospitalizations or death in the ATHENA clinical trial. In addition, dronedarone reduces AF recurrence, maintains rate control, and has a favorable safety profile with low pro-arrhythmic and organ-toxicity profile. The objective of this study was to construct a health economic model to assess the cost-effectiveness of dronedarone vs. other AADs in a Canadian setting. METHODS: A state transition model evaluated through patient-level simulation has been developed using Microsoft Excel. It allows comparisons over varying time horizons and treatment durations. Transition probabilities are obtained from the Canadian health care system, treatment with statin monotherapy is considered to be cost-effective versus no treatment in female and male patients with 2 or more risk factors or CHD. Treatment and CVE direct medical costs were obtained from a medication database and DRGs for public hospitals in 2009 in Spain. Deterministic results were estimated and a probabilistic sensitivity analysis was conducted. Results were expressed as expected cost per quality adjusted life-years (QALYs) gained. RESULTS: In deterministic analyses, expected costs per patient per year at age of 40 were higher for patients with 2 or more cardiovascular risk factors who were not treated than those who were treated (female: £61,300 vs. £40,106; male: £22,160 vs. £18,333). Similar results were found for patients with CHD (female: £13,706 vs. £13,644, 0.10 QALY; male: £16,892 vs. £16,073, 0.12 QALY). CONCLUSIONS: From the perspective of the Canadian health care system, treatment with statin monotherapy is considered to be cost-effective versus no treatment in female and male patients with 2 or more risk factors or CHD.

**PCV76**

**COST-EFFECTIVENESS ANALYSIS OF DRONEDARONE IN PATIENTS WITH ATRIAL FIBRILLATION IN MEXICO: A WITHIN TRIAL ANALYSIS BASED ON ATHENA TRIAL**

**OBJECTIVES:** To perform a cost-effectiveness analysis (CEA) for the use of dronedarone in patients with atrial fibrillation (AF) in order to prevent hospitalizations due to cardiovascular events or death (HCED), from the public health care system perspective.

**RESULTS:** Patients randomized to dronedarone experienced 1190 events of HCED (average rate 415 events, 18% less hospitalizations (CI 95%: 10–25%) for the dronedarone group. The average cost per patient in the dronedarone group was $3028 as compared to the placebo group of $2,941, yielding a cost difference of $874, and an avoided incremental cost per HCED of $477.00 of dronedarone vs. the placebo group. The DSA shows the analysis is robust. CONCLUSIONS: According to the ATHENA trial, dronedarone is a cost-effective treatment option for the reduction of HCED from the Mexican perspective. Dronedarone’s value could be enhanced if indirect costs averted from the decreased rates of HCED included.

**PCV77**

**A SIMULATION MODEL TO ASSESS COST-EFFECTIVENESS OF STATINS IN HIGH RISK PATIENTS WITH ELEVATED LDL-C IN SPAIN**

**OBJECTIVES:** The aim of this study is to estimate cost-effectiveness of lowering low-density lipoprotein cholesterol (LDL-C) with statin monotherapy in patients with elevated LDL-C with two or more cardiovascular risk factors. The model consists of a Markov model with generic atenolol versus generic atenolol alone.

**RESULTS:** Cost-effectiveness analyses were based on real-world data for statin costs and £2,250 per quality adjusted life-year (QALY) was considered cost-effective. The model was estimated from data from the DORICA and PRIMULA study. LDL-C lowering efficacy of statins, mortality, and health-state utilities were obtained from published scientific literature. Cardiovascular risk factors included were age, sex, systolic blood pressure, diabetes, smoking and high-density lipoprotein cholesterol (HDL-C). Treatment and CVE direct medical costs were obtained from a medication database and DRGs for public hospitals in 2009 in Spain. Deterministic results were estimated and a probabilistic sensitivity analysis was conducted. Results were expressed as expected cost per quality adjusted life-years (QALYs) gained. RESULTS: In deterministic analyses, expected costs per patient per year at age of 40 were higher for patients with 2 or more cardiovascular risk factors who were not treated than those who were treated (female: £61,300 vs. £40,106; male: £22,160 vs. £18,333). Similar results were found for patients with CHD (female: £13,706 vs. £13,644, 0.10 QALY; male: £16,892 vs. £16,073, 0.12 QALY). CONCLUSIONS: From the perspective of the Spanish health care system, treatment with statin monotherapy is considered to be cost-effective versus no treatment in female and male patients with 2 or more risk factors or CHD.

**PCV78**

**COST-EFFECTIVENESS ANALYSIS OF IVABRADINE IN CHRONIC STABLE ANGINA PATIENTS IN AN AUSTRIAN SETTING**

**OBJECTIVES:** High resting heart rate (HR) has been progressively accepted as a modifiable cardiovascular risk factor. Ivabradine (Procoralan®) is a specific HR lowering agent. This study aimed estimating the cost-effectiveness of ivabradine in stable angina patients with a normal sinus rhythm and a resting HR above 70 beats per minute (bpm) from the Austrian health care perspective: 1) versus generic diltiazem with higher quality adjusted survival and lower costs; 2) versus beta-blockers (BB) when on concomitant treatment with a BB; and 3) in combination with generic metoprolol versus metoprolol alone. METHODS: A Markov chain Monte Carlo stochastic simulation model was used to estimate the influence of HR lowering in cardiovascular morbidity and mortality and its economic consequences. Treatments considered are ivabradine, 7.5 mg twice a day, diltiazem, 240 mg once a day and atenolol 50 mg once a day; HR distribution, survival and time to hospitalization were modelled using weibull functions. Events considered were acute myocardial infarction, stroke, heart failure, death or revascularization and were expressed as a quality adjusted life-year (QALY). The model was parameterized using data from a large, multinational, randomized clinical trial. In addition, dronedarone reduces AF recurrence, maintains rate control, and has a favorable safety profile with low pro-arrhythmic and organ-toxicity profile. The objective of this study was to construct a health economic model to assess the cost-effectiveness of dronedarone vs. other AADs in a Canadian setting. METHODS: A state transition model evaluated through patient-level simulation has been developed using Microsoft Excel. It allows comparisons over varying time horizons and treatment durations. Transition probabilities are obtained from the Canadian health care system, treatment with statin monotherapy is considered to be cost-effective versus no treatment in female and male patients with 2 or more risk factors or CHD.