Markov model for evaluating the long-term cost-effectiveness of clopidogrel in patients with NSTEMI was adapted and extended by using local utility and economic values. The effect of clopidogrel was applied during the first year in the model and was estimated by the CURE trial. Costs assigned to each health state included antiplatelet treatment cost, cost for the management of adverse events and the costs for concomitant medication, hospitalization, outpatient visits, rehabilitation and nursing. The incremental cost-effectiveness ratio (ICER) was calculated. A probabilistic sensitivity analysis was conducted in order to assess the impact of all uncertain model parameters varying simultaneously. The results are presented as mean (95% Uncertainty Interval (UI)). **RESULTS:** The analysis showed a discounted survival of 8.27 (8.25-8.30) years in the aspirin treatment group and 8.42 (8.39-8.44) years in the aspirin+clopidogrel treatment group; a difference of 0.14 (0.11-0.18, p<0.001) years. Adjusting the survival for the quality of life, the model predicts 7.52 (7.15–7.79) and 7.66 (7.27–7.94) discounted QALYs in the aspirin and clopidogrel+aspirin arm, respectively, resulting in a difference of 0.14 QALYs (0.10-0.17, p<0.001). The cumulative lifetime costs per patient were € 15,976 (€14,848–€17.156) and € 15,392 (€14,301- €16,535), for aspirin and clopidogrel+aspirin treatment arm, respectively, a difference of € 584 (€525-€647). The ICER was €4111 (€3342–€5169) for each life-year saved and €4385 (€3487–€5647) for each QALY saved. For a decision threshold of €5500 per discounted QALY, clopidogrel+aspirin is cost-effective in more than 95% of randomly sampled analyses. **CONCLUSIONS:** Treatment with clopidogrel in addition to aspirin is a cost-effective treatment option in patients with NSTEMI from the perspective of a third-party payer in Greece.

PCV77

ECONOMIC EVALUATION OF DABIGATRAN ETEXILATE 150DIB FOR THE STROKE PREVENTION IN ATRIAL FIBRILLATION IN GREECE: A COST –EFFECTIVENESS ANALYSIS UNDER THE GREEK NHS SETTING

Fragoulakis V[1], Theodoratou T[2], Maniadakis N[1]
[1]National School of Public Health, Athens, Greece, [2]Boehringer Ingelheim, Athens, Greece

OBJECTIVES: To estimate the cost-effectiveness of Dabigatran etexilate 150dib relative to Sintrom, Aspirin, Aspitin-Clopidogrel, Best Supportive Care and no treatment, in the management of patients with Atrial Fibrillation in the Greek health care setting. **METHODS:** A Markov model was adopted to estimate long term outcomes of patients moving during their lifetime in between the following health states: primary and recurrent ischemic stroke, hemorrhagic stroke, transient ischemic attack, systemic embolism, acute myocardial infarction, intracranial hemorrhage, extracranial hemorrhage and death. Data on event rates and patent quality of life associated with different health states and patient survival times were based on a multinational clinical trial (RE-LY) and the related literature. Furthermore, data on resource use associated with the management of patients and of different events were collected from a survey of local hospitals. Unit prices were collected from official resources and relate to 2011. A 3.5% discount rate was used for all outcomes. Sensitivity analysis and probabilistic analysis was used to test the robustness of the analysis **RESULTS:** The mean total life-time cost of patients on Dabigatran etexilate was estimated at €20,103, relative to €11,639 in the case of Sintrom, while mean Quality Adjusted Life Years (QALYs) were 9.86 and 9.83 for the two treatments, respectively. The incremental cost-effectiveness ratio of Dabigatran etexilate relative to Sintrom was estimated at €25,952. Similarly it was estimated at €8,223, €10,392 and €7,536 against Asprin-Clopidogrel, Aspirin alone and No-Tretament, respectively. Sensitivity analyses indicated that the cost-effectiveness of Dabigatran etexilate remained below acceptable thresholds (€50,000 per QALY gained) in significant variations of baseline parameters. Probabilistic analysis indicated that in about 85% of cases its cost-effectiveness ratios, relative to the above comparators were below the aforementioned threshold. **CONCLUSIONS:** Dabigatran etexilate may represent a cost-effective choice for the management of patients with atrial fibrillation in Greece.

PCV78

A COST-EFFECTIVENESS ANALYSIS OF CLOPIDOGREL VERSUS ASPIRIN IN PATIENTS WITH ATHEROTHROMBOSIS IN GREECE

Kourlaba G, Fragoulakis V, Maniadakis N
National School of Public Health, Athens, Greece

OBJECTIVES: To conduct an economic analysis comparing treatment with clopidogrel against aspirin in patients with peripheral artery disease, a recent stroke, or a recent myocardial infarction from the Greek third-party-payer perspective. **METHODS:** A Markov model with a 6-month cycle length was developed to evaluate the lifetime cost-effectiveness of clopidogrel versus aspirin. The effect of clopidogrel was applied only during the first 2 years of the model and this was retrieved from CAPRIE trial. Local utility data were used to estimate quality-adjusted life years (QALY). The state-specific costs consists of the costs that reflect and encapsulate all resource used for the care of patients within the health care system during a 6-month period in the acute and follow-up phase, separately. The cost-effectiveness of clopidogrel over aspirin was evaluated by calculating the incremental cost per life year saved (LYS) and incremental cost per QALY saved (ICER). A probabilistic sensitivity analysis was conducted and the results are presented as mean (95% Uncertainty Interval (UI)). **RESULTS:** The analysis showed that the discounted survival was 11.83 (11.41-12.22) years and 12.17 (11.75-12.55) years in aspirin and clopidogrel treatment group, respectively, a difference of 0.27 (0.10-0.45) life-years. The corresponding discounted QALYs were 8.63 (8.34 – 8.91) and 8.84 (8.54–9.10), respectively. The cumulative lifetime costs per patient were €19,880 (€18,863–€20,939) and €21,039 (€20,006–€22,089), for aspirin and clopidogrel treatment arm, respectively. The ICER was calculated to be € 4,921 (€ 3,079–€ 9,969) for

each LYS and €6,326 (€ 3,737–€ 16,699) for each QALY saved. For a "willingness-to-pay" threshold of € 9,500 per discounted QALY, clopidogrel was found to be cost-effective in more than 90% of randomly sampled analyses. **CONCLUSIONS:** This economic analysis indicates that treatment with clopidogrel for secondary prevention of cardiovascular events in atherothrombotic patients is a cost-effective antiplatelet treatment over aspirin in a Greek third-party payer perspective.

PCV79

ECONOMIC EVALUATION OF ROSUVASTATIN VERSUS ATORVASTATIN, SIMVASTATIN AND PRAVASTATIN IN HIGH RISK PATIENTS TREATED FOR PRIMARY AND SECONDARY PREVENTION OF CARDIOVASCULAR DISEASE IN GREECE

Fragoulakis V, Kourlaba G, Maniadakis N
National School of Public Health, Athens, Greece

OBJECTIVES: To evaluate common therapeutic alternatives (rosuvastatin, atorvastatin, simvastatin, pravastatin) for the prevention of primary and secondary cardiovascular events in Greece. **METHODS:** A Markov model with distinct health states (no event, fatal/non fatal acute myocardial infarction (MI), fatal/non fatal stroke, post-MI, post-stroke & all cause death) was developed, to reflect within a 20-year time span health and economic outcomes of non-smoking patients assumed to be at base line at mean age of 70 years, with no prior treatment of hypertension, systolic blood pressure at 140mmHg and total cholesterol at 260mg/Dl. The HellenicSCORE risk score equation was used to transform systolic blood pressure reductions in different medications into long-term reductions in cardiovascular events. Transition probabilities from acute myocardial infarction or stroke to death were obtained from the Framingham study. Treatment cost was estimated from a payer perspective and includes the cost of medication and all resources used in the management of events. Health states were associated with local quality of life data to estimate Quality Adjusted Life Years (QALYs). A probabilistic sensitivity analysis was conducted to deal with uncertainty. Prices reflect 2011 and outcomes were discounted at 3.5%. **RESULTS:** For males, discounted QALYs were: 10.18 (95%CI:10.11-10.23), 10.04 (95%CI:9.96-10.10), 9.94 (95%CI: 9.84-10.02) and 9.88 (95%CI: 9.76-9.97) for rosuvastatin, atorvastatin, simvastatin and pravastatin, respectively. The mean total cost was: 15,646 (95%CI:15,173-16,130), 16,678 (95%CI:16,184-17,187), 17,242 (95%CI:16,732-17,766) and 17,585 (95%CI: 17,060-18,119) respectively. For females, QALYs were: 10.33 (95%CI:10.28-10.37), 10.26 (95%CI:10.20-10.30), 10.20 (95%CI:10.13-10.25) and 10.16 (95%CI: 10.08-10.22), respectively. Similarly, mean total cost was: 15,030 (95%CI:14,632-15,430), 15,608 (95%CI:15,192-16,023), 15,951 (95%CI:15,521-16,379) and 16,153 (95%CI:15,714-16,591) respectively. Hence rosuvastatin was a dominant therapy option. **CONCLUSIONS:** Rosuvastatin may represent an attractive option relative to alternative therapies, from an economic and clinical point of view, in the primary and secondary prevention of cardiovascular events in the National Health Service of Greece.

PCV80

ECONOMIC EVALUATION OF PRAVASTATIN FOR THE PREVENTION OF CORONARY ARTERY DISEASE IN JAPAN

Onishi Y, Hinotsu S, Nakao YM, Urushihara H, Kawakami K
Kyoto University, Kyoto, Japan

OBJECTIVES: The cost-effectiveness study of pravastatin for primary prevention of coronary artery disease (CAD) was assessed applying epidemiologic data and risk predictions of CAD in Japan. **METHODS:** A Markov transition model was used for evaluating the cost-effectiveness of 20mg/day of pravastatin treatment with diet therapy. The incidence of acute myocardial infarction (AMI) was estimated using newly developed risk predictions of CAD in Japan. Hypothetical population of men and women from 45 to 75 years old were assumed according to the cardiac risk factors from Japan Atherosclerosis Society Guideline for Prevention of Atherosclerotic Cardiovascular Disease. Quality-adjusted life-years (QALYs) and incremental cost-effectiveness ratios (ICERs) over a lifetime horizon were estimated from the perspective of payers. One way sensitivity analysis and probabilistic sensitivity analysis were conducted to see the robustness of the model. **RESULTS:** The predicted incidence of AMI was 4.4/10,000 person-years for men and 1.4/10,000 person-years for women aged 55 years with initial total cholesterol level (TC) of 240 mg/dl without other cardiac risk factors (i.e. low cardiac risk) and 20.1/10,000 person-years for men and 6.6/10,000 person-years for women with initial TC level of 240 mg/dl, and risks of smoking, hypertension and diabetes (i.e. high cardiac risk). Over a lifetime horizon, the ICERs were depended on the level of cardiac risk factors. The ICERs were decreased proportionally with increased age and number of cardiac risk factors. Considering the willingness to pay threshold per QALYs, pravastatin treatment was not cost-effective in all subgroups evaluated in this study. **CONCLUSIONS:** Due to the predicted low incidence of CAD in Japan, pravastatin treatment was not cost-effective for primary prevention of CAD in population not only at low cardiac risk but also at high cardiac risk. Further evaluations of cost-effectiveness on CAD treatment in Japan using available epidemiological data and risk predictions are needed.

PCV81

COST-EFFECTIVENESS OF TICAGRELOR VERSUS CLOPIDOGREL IN PATIENTS WITH ACUTE CORONARY SYNDROME: RESULTS FROM THE PLATO STUDY: A CANADIAN ANALYSIS

Mittmann N[1], Chan B[2], Seung SJ[3], Liovas A[4], Cohen E[1]
[1]Sunnybrook Health Sciences Centre, Toronto, ON, Canada, [2]University of Toronto, Toronto, ON, Canada, [3]HOPE Research Centre, Toronto, ON, Canada, [4]AstraZeneca Canada Inc., Mississauga, ON, Canada