

pared to the “do nothing” strategy. To collect the information needed to process to this assessment, two databases are used: a survey focused on equivalent incomes ($n=3331$) in a representative sample of the French population and a cost-effectiveness model produced by the French National Authority for Health (HAS). **RESULTS:** As preliminary results, we find that antihypertensive treatments in primary prevention are efficient if the inequality aversion is 0, 1 or 2. However antihypertensive treatments are not efficient anymore if it is decided to take a stronger degree of inequality aversion of 3. Indeed, 20% of the poorest individuals would have an increase of income if antihypertensive treatment were not prescribed and reimbursed by the national health insurance given their actual participation to public health care expenses. **CONCLUSIONS:** These results may reflect issues raised by the funding of health care in the French system.

PCV44

ECONOMIC EVALUATION OF A SINGLE-PILL TRIPLE COMBINATION WITH VALSARTAN, AMLODIPINE AND HYDROCHLOROTHIAZIDE AGAINST ITS DUAL COMPONENTS IN GREECE. THE GENERIC SUBSTITUTION CASE

Stafylas P¹, Kourlaba G², Georgiopoulos D³, Hatzikou M³, Maniadakis N²
¹AHEPA University Hospital, Kalamaria, Greece, ²National School of Public Health, Athens, Greece, ³Novartis Hellas, Metamorfofis, Greece

OBJECTIVES: The first single-pill triple antihypertensive therapy with valsartan (VAL), amlodipine (AML) and hydrochlorothiazide (HCTZ) is currently available. The aim of this study was to compare the cost-effectiveness of the single-pill triple combination with dual components in generic forms. **METHODS:** A Markov model evaluating the cost-effectiveness of the single-pill triple combination against each of the dual components was constructed. Two important assumptions have been considered i) the cheaper available generics ii) effectiveness and adverse-events were the same as in the original forms. To achieve the lowest available price for the generic alternatives, three pills were necessary for the combination AML/VAL, three for VAL/HCTZ and two for AML/HCTZ. It was also assumed that adherence and Quality of Life (QoL) were similar as with single pill dual components. The time horizon was lifetime. Effectiveness and costs were discounted at 3% rate. The analysis was conducted from Greek third-party-payer perspective, in 2012(€). **RESULTS:** The triple combination was expected to increase life expectancy by 0.14 to 0.49 years and QALYs by 0.12 to 0.38, comparing with its dual components. The total cost of treatment with triple combination was estimated at €17,499 in comparison to €16,521 for AML/VAL, €14,959 for VAL/HCTZ and €11,269 for AML/HCTZ. The incremental cost-effectiveness ratio (ICER) per Quality Adjusted Life Year (QALY) gained with the triple combination versus the dual combinations VAL/AML, VAL/HCT and AML/HCTZ was 13,251€, 28,067€ and 16,541€. There was a probability of more than 80% for the triple combination to be cost-effective with an incremental cost effectiveness ratio (ICER) threshold of 25,000€/QALY gained. **CONCLUSIONS:** The single-pill triple combination therapy with VAL/AML/HCTZ is a cost-effective antihypertensive choice, compared to its dual components in generic forms. Moreover, this study may underestimate the cost-effectiveness of the triple combination since a single-pill formulation would improve treatment adherence and effectiveness more than the other comparators, requiring 2 to 3 different pill intake.

PCV45

LONG TERM COST-EFFECTIVENESS ANALYSIS OF TICAGRELOR IN PATIENTS WITH ACUTE CORONARY SYNDROMES FROM A TURKISH HEALTH CARE PERSPECTIVE BASED ON DATA FROM THE PLATO TRIAL

Abaci A¹, Bozkurt E², Mellstrom C³, Caglayan B⁴
¹Gazi University, Ankara, Turkey, ²Atatürk Educational Hospital, ANKARA, Turkey, ³AstraZeneca, Mölndal, Sweden, ⁴AstraZeneca Turkey, Istanbul, Turkey

OBJECTIVES: The PLATO trial showed that in patients with acute coronary syndromes (ACS) treatment with ticagrelor compared with clopidogrel significantly reduced the rate of myocardial infarction, stroke, or death from vascular causes without a significant increase in the rate of overall major bleeding. The aim of this analysis is to estimate long-term cost-effectiveness of treating ACS patients with ticagrelor from a Turkish health care perspective. **METHODS:** A two-part decision-analytic model, including a one-year decision tree and a long-term Markov model, was constructed to estimate lifetime costs, LYs and QALYs of treating patients for one year with ticagrelor plus acetylsalicylic acid (ASA) compared with clopidogrel plus ASA. Event rates, health-care costs, and QALYs were estimated for the first year by using individual-patient data from PLATO. The cost was calculated by applying Turkish unit costs. For the second year onwards, necessary assumptions and external data sources were utilized to extrapolate quality-adjusted survival conditional on whether a non-fatal MI, a non-fatal stroke or no event occurred during the first year. Probabilistic sensitivity analyses were performed. The willingness to pay threshold per QALY considered for the cost effectiveness analysis was 3 times GDP per capita. **RESULTS:** Ticagrelor was associated with life expectancy gains of 0.116 years primarily due to reduced rate of CV mortality and 0.101 additional QALYs and an incremental cost of 1662 TL compared to clopidogrel over a life time horizon. The incremental cost per life year and QALY gained were 14 297 TL and 16 415 TL respectively compared to clopidogrel. Probabilistic sensitivity analysis indicated > 99% probability of ticagrelor being cost-effective compared with clopidogrel at a willingness to pay of 52002 TL per QALY. **CONCLUSIONS:** Treating ACS patients with ticagrelor instead of clopidogrel for one year is cost-effective from the Turkish public health care perspective.

PCV46

THE PHARMACOECONOMIC ANALYSIS OF ILOPROST IN CRITICAL LIMB ISCHEMIA

Axentyeva M¹, Krysanov I¹, Chupin A²

¹Research Center for Clinical and Economic Evaluation and Pharmacoeconomics, Russian National Research Medical University, Moscow, Russia, ²Clinical Hospital N 83, Moscow, Russia

OBJECTIVES: To perform pharmacoeconomic analysis of iloprost for critical limb ischemia (CLI). **METHODS:** Direct medical and indirect costs were calculated for iloprost 20 mcg per day for 21 days vs typical practice of treating patients with CLI. Direct medical costs included drug therapy, hospital treatment for amputations and treating ulcers and were calculated from Russian health care system point of view. Indirect costs included expected gross domestic product (GDP) loss due to the disability of patients in working age. The expected number of amputations and cases of ulcer treatment was calculated on the base of data from meta-analysis (T. Loosemore, et al, 1994). Percentage of patients with CLI of working age was taken from the retrospective study of treating CLI at Moscow hospitals. All prices were for year 2012. To assess the sustainability of the study results the one-way sensitivity analysis was performed, all costs were varied within $\pm 30\%$ interval. **RESULTS:** Due to less amputations (absolute risk reduction (ARR) 16%) and hospitalizations for ulcer treatment (ARR 23%) iloprost saves €372 per patient for health care system. If expected loss of GDP is taken into account the total costs saved are equal to €6190. The results of one-way sensitivity analysis show that iloprost remains less costly than typical practice in every scenario tested. **CONCLUSIONS:** Iloprost appeared to be a cost-saving option when compared with typical practice of treating patients with CLI in Russian health care system.

PCV47

ECONOMIC EVALUATION OF DABIGATRAN FOR STROKE PREVENTION AMONG PATIENTS WITH ATRIAL FIBRILLATION IN THE NETHERLANDS

Le HH¹, Pechlivanoglou P¹, Engelfriet PM², Postma MJ¹, Redekop WK³
¹University of Groningen, Groningen, The Netherlands, ²National Institute for Public Health and the Environment, Bilthoven, The Netherlands, ³Erasmus University Rotterdam, Rotterdam, The Netherlands

OBJECTIVES: Patients with atrial fibrillation (AF) are at increased risk of stroke. Furthermore, AF-related strokes are associated with greater severity, disability, and mortality than strokes of other etiologies. Management with vitamin K antagonists (VKAs) like warfarin has been an effective and cost-effective strategy. However, their use requires regular monitoring and is associated with a significant risk of bleeding, among other shortcomings. Dabigatran is a novel oral anticoagulant associated with lower stroke and similar major hemorrhage rates compared to warfarin. This study evaluated the cost-effectiveness of dabigatran for stroke prevention in AF patients for the Dutch situation. **METHODS:** A Markov model was developed using efficacy data extracted from the RE-LY registration study and cost data from Dutch costing studies. The model contained the following health states: AF, stroke or systemic embolism, transient ischemic attack, intracranial hemorrhage, myocardial infarction, pulmonary embolism, extracranial hemorrhage, minor bleeding, and death. The model allowed for new or recurrent events over the lifetime of the patient. Additionally, factors such as subgroup-specific stroke risk, drug discontinuation, and time in therapeutic range (a measure of quality of anticoagulation) were included in the model. Univariate and probabilistic sensitivity analyses were conducted on the base-case incremental cost-effectiveness ratio (ICER). **RESULTS:** In the base-case analysis, dabigatran-150mg compared to VKA has an incremental cost of €3,057 and a QALY gain of 0.26, corresponding to an ICER of €11,758/QALY. At an informal willingness-to-pay threshold of €50,000/QALY, the probability that dabigatran is cost-effective was approximately 0.93. Sensitivity analysis identified quality of anticoagulation care, drug-specific stroke risk, and stroke cost as having the biggest impact on the ICER. **CONCLUSIONS:** Dabigatran may be a cost-effective option for AF patients in The Netherlands. However, updated estimates, specifically for anticoagulation care, stroke risk, and stroke cost in The Netherlands, would further improve and reduce uncertainty surrounding the results.

PCV48

SYSTEMATIC REVIEW OF COST-EFFECTIVENESS MODELS FOR PHARMACOLOGIC STROKE PREVENTION IN ATRIAL FIBRILLATION

Limone B¹, Baker WL², Roberts M¹, Coleman CI³
¹Hartford Hospital, Hartford, CT, USA, ²University of Connecticut, Hartford, CT, USA, ³University of Connecticut, Storrs, CT, USA

OBJECTIVES: To conduct a systematic review of economic models of pharmacologic stroke prevention in atrial fibrillation (SPAF). **METHODS:** We searched Medline, Embase, NHSEED and the Tuft's Registry through May 2012. Included models assessed pharmacologic SPAF using a Markov process or discrete event simulation (DES), calculated both costs and effectiveness, and was published in English. Two investigators independently screened models and extracted data. **RESULTS:** Twenty-two models, published between 1995 and 2012, were identified. One model was a DES, and the remainder Markov models. Eleven models used a structure similar to Gage et al. (1995); five were derivatives of Sorensen et al. (2009), with the remainder using unique structures. Only 5 models had a non-CNS systemic embolism health state. Models typically started at 65 or 70 years and followed patients for their lifetime (e.g., ≥ 75 years of age). Inaccuracies in reporting of perspective existed; however, no model included indirect costs and all but one calculated quality-adjusted life-years (QALYs). Twenty models included warfarin; however, only 50% assessed the impact of INR control on conclusions. Most models included aspirin alone (73%), ten evaluated newer anticoagulants, and three evaluated clopidogrel + aspirin. Comparative efficacy and safety data for warfarin vs. aspirin/control models were often derived from meta-analyses; whereas, data for newer agents came from a lone randomized trial. Models otherwise used similar sources of non-drug dependent inputs. Eighty-two percent of reported base-case incremental cost-effectiveness ratios (ICERs) were cost-effective ($< \$50,000/\text{QALY}$). Models typically found warfarin (vs. aspirin/no therapy), dabigatran and rivaroxaban