PCV64
THE POTENTIAL CLINICAL AND ECONOMIC OUTCOMES OF PHARMACOGENETIC-ORIENTED WARFARIN THERAPY IN RUSSIA
Gerasimova KV
The First Moscow State Medical University named after I.M. Sechenov, Moscow, Russia, Moscow, Moscow, Russia
OBJECTIVES: To evaluate the potential clinical and economic outcomes of using genotype data to guide the management of warfarin anticoagulation therapy. **METHODS:** A decision tree was designed to simulate two groups – group of standard care and genotyped group. Both groups were separated by CYP2C9 genotypes in patients with alleles CYP2C9*2 and CYP2C9*3 and patients with genotype CYP2C9*1*1. CYP2C9*1*1 patients were subdivided further into VKORCBB and VKORCAA/AB types. Outcomes in each group were: major bleeding (gastrointestinal and intracranial), minor bleeding (hemorrhoid, hemarthrosis, hemophtalmos and others) and no bleeding. Direct medical costs from the Russian healthcare system point of view were estimated. Rate of bleedings in patients with different genotypes and relative risks of bleedings in pharmacogenetic-oriented approach were obtained from the literature. Sensitivity analysis to key parameters was performed. **RESULTS:** In the basic scenario costs of the standard treatment were higher than in pharmacogenetics-oriented group: 8545 rubles (USD305) and 6806 rubles (USD243) for 1 patient per year respectively. Sensitivity analysis showed that the model is sensitive to the price of pharmacogenetic test only: the pharmacogenetic approach remains cost-saving until the test costs less than 2600 rubles (USD93). **CONCLUSIONS:** In the Russian health care system, pharmacogenetic-oriented warfarin therapy is cost saving if the price of pharmacogenetic test does not exceed 2600 rubles (USD93).

PCV65
CLINICO-ECONOMIC EVALUATION OF COMPLEX CARDIOVASCULAR THERAPY WITH MAGNESIUM OROTATE IN PATIENTS WITH CHRONIC HEART FAILURE VERSUS STANDARD THERAPY IN UKRAINE
Iakovlieva L, Kyrychenko O, Mishchenko O
National University of Pharmacy, Kharkiv, Ukraine
OBJECTIVES: To evaluate the profitability of the complex cardiovascular therapy with magnesium orotate in patients with chronic heart failure (CHF) IV functional class (NYHA IV). **METHODS:** Cost-effectiveness evaluation of 2 treatment strategies was performed using the modeling "decision tree". Data from various sources: the results of two clinical trials (Stepura O.B., Martynow A.I., 2009; Libis R.A. et al, 1999) and National standard of treatment of patients with CHF FC IV were used in the modeling. Cost-effectiveness ratio was evaluated in accordance with the threshold willingness to pay for improving health achievement. The analysis of the impact of the investigated treatment strategies on the budget, taking into account the lost productivity was conducted. **RESULTS:** The inclusion of magnesium orotate in the CHF standard therapy improves the health (NNT was 1 / 0, 24 ≈ 4), it gives an additional 0,14 QALYs and requires additional costs. Only direct medical costs were included in the cost value. Incremental cost-effectiveness ratio was 1517,82 $ / add. QALY. It is less than GDP per capita (current threshold willingness to pay), i.e. cardiovascular therapy with magnesium orotate is cost effective. However, taking into account the financial capacity of the health system in Ukraine, in real practice such costs for achieve better health are less acceptable than the costs of standard therapy. Indirect costs (lost productivity) during 2 years in the application of standard therapy with magnesium orotate were less than indirect costs in application only standard therapy. Saving money - 606,7 $ per patient. **CONCLUSIONS:** Thus the inclusion of magnesium orotate in the standard therapy in patients with CHF is cost effective. High direct costs are compensated due in indirect costs savings.

PCV67
HEALTH-ECONOMIC IMPACT OF THE HUNGARIAN SALT INTAKE REDUCTION PROGRAM
Nagyjanosi L[1], Martos É[2], Bödönyi D[3], Vokó Z[3]
[1]*Syreon Research Institute, Budapest, Hungary,* [2]*National Institute for Food and Nutrition Science, Budapest, Hungary,* [3]*Eötvös Loránd University, Budapest, Hungary*
OBJECTIVES: Salt consumption in Hungary is high in international comparison, the average salt intake is 17,28g per day in men and 12,05g in women. Our aim was to study the cost-effectiveness of the salt intake reduction program run by the Hungarian National Institute for Food and Nutrition Science. **METHODS:** We built a cohort simulation Markov-model. The health benefit achieved by reduced salt intake was calculated for the 40-60 year old Hungarian population in 7 health states: healthy, hypertension, acute- and post AMI and stroke, death The transitional probabilities were calculated from national and international publications. We used the data of National Health Found and expert estimations to define the costs of interventions and health states. The efficacy was modeled with the use of data from the literature. It was assumed that 3g salt reduction results in 5Hgmm decline in systolic blood pressure (SBP) and 1Hgmm SBP lowering will reduce the prevalence of the hypertension with 1%. A discount rate of 5% was applied. **RESULTS:** If a public health program could reduce the salt intake to 10g/day/capita at in 5 years by 31 USD PPP/capita/year investment, then the ICER would be 4090.5 USD PPP (1USD PPP=128.92 HUF). In this scenario the lifelong risk of AMI and stroke would decrease with 0.0034The incremental cost of the intervention is 27.15 USD PPP, and the QALY win is 0.0066. **CONCLUSIONS:** An effective public health program to reduce salt intake would be cost-effective in Hungary.

PCV68
PHARMACOGENOMIC TESTING FOR WARFARIN USE IN TYPICAL OUTPATIENT SETTINGS LOWERS HEALTH CARE COSTS: THE MEDCO-MAYO WARFARIN EFFECTIVENESS STUDY
Aubert RE[1], Epstein RS[1], Yao J[1], O'Kane DJ[2], Tinnirello J[1], Teagarden JR[1], Moyer TP[2]
[1]*Medco Health Solutions, Inc., Franklin Lakes, NJ, USA,* [2]*Mayo Clinic, Rochester, MN, USA*
OBJECTIVES: To measure the comparative direct medical care costs between incident warfarin patients who did or did not experience genotyping to guide dosing. **METHODS:** We reanalyzed the previously published MM-WES in which we demonstrated that genotyping reduces the risk of hospitalization for bleeding and thromboembolism in patients who initiate warfarin treatment in typical outpatient practice settings. We used a cost consequence analysis to estimate the 6-month costs and consequences of warfarin genotyping. The intervention group (IG) comprised 896 patients and a comparison group was constructed from 2688 historical controls (HC). The direct medical care costs were estimated for inpatient, office visits and laboratory utilization (including cost of genotyping) and summed to a total cost per patient. A boot-strapping method was performed to estimate confidence limits around the difference in mean cost per patient to assess statistical significance. **RESULTS:** Over the 6-month monitoring period, the all cause–related per patient costs for the genotyped IG patient was $4127 compared to $5040 for HC. The all-cause difference of -$913 per patient reached statistical significance, 95% CI (-$895, -$930). Various subgroup analyses including warfarin-related costs will be presented. **CONCLUSIONS:** Our analysis suggests that providing results of warfarin genotyping to treating physicians in typical outpatient settings produces cost-savings within six months of initiating warfarin therapy. These estimates are likely conservative as they do not include ancillary costs such as rehabilitation or indirect costs, nor do they estimate costs beyond six months.

PCV69
ECONOMIC EVALUATION OF PRIMARY PREVENTION OF CARDIOVASCULAR DISEASES IN MILD HYPERTENSION: A SCENARIO ANALYSIS FOR THE NETHERLANDS
Stevanovic J[1], O'Prinsen AC[2], Postma MJ[1], Pechlivanoglou P[1]
[1]*University of Groningen, Groningen, The Netherlands,* [2]*Sanofi-Aventis, Gouda, The Netherlands*
OBJECTIVES: According to current Dutch guidelines, antihypertensive treatment for patients with mild hypertension is recommended if the 10-year fatal cardiovascular disease (CVD) risk exceeds 10% or if accompanying risk factors are present. Recent evidence suggests that lifelong CVD risk estimates might be more informative than 10-year risk estimates. The aim of this study was to estimate the economic impact and influence on CVD risk of blood pressure (BP) reduction, in patients ineligible for treatment according to guidelines. **METHODS:** A Markov model was developed to assess the lifetime costs and health benefits of BP reduction with hydrochlorothiazide (HCT) or HCT plus losartan. Patients had mild hypertension and low 10-year CVD risk. The SCORE risk estimates were modified to predict fatal and non-fatal events over a lifelong time horizon. We analysed scenarios for different age groups, gender and reductions in BP. Costs and health effects were discounted at 4.0% and 1.5%, respectively; a Dutch healthcare perspective was used. **RESULTS:** A total of 48 different scenarios were modeled. Minor BP reductions were potentially not cost-effective in young women treated with HCT (€59,000 per life-year gained (LYG)), whereas potential cost-effectiveness was observed in a comparable male population (€12,000 per LYG). BP reduction was, generally, found to be more cost-effective in men, in older subjects and for larger BP reductions (up to cost-saving results). Results for HCT plus losartan were comparable. **CONCLUSIONS:** In patients ineligible for antihypertensive treatment according to current Dutch guidelines, reducing BP, nonetheless, resulted in clinical benefits for several patient populations. BP reduction was found to be potentially cost-effective in males for all age groups and even cost-saving in older ages, whereas for females it was less favorable. This, together with recent decreases in drug prices, should trigger further discussion on antihypertensive treatment in patients with low 10-year fatal CVD risk.

PCV70
COST EFFECTIVENESS OF TICAGRELOR IN THE TREATMENT OF ACUTE CORONARY SYNDROME IN GERMANY
Theidel U[1], Asseburg C[2], Giannitsis E[3], Katus H[3]
[1]*Herescon Gmbh, Hannover, Germany,* [2]*ESiOR Ltd, Kuopio, Finland,* [3]*Department of Medicine III, University of Heidelberg, Heidelberg, Germany*
OBJECTIVES: The PLATO trial showed that in patients with acute coronary syndromes (ACS) treatment with ticagrelor plus acetylsalicylic acid (ASA) compared with clopidogrel/ASA significantly reduced the rate of myocardial infarction (MI), stroke, or death from vascular causes without a significant increase in the rate of overall major bleedings. The present study evaluates the long-term cost-effectiveness of treating patients with ticagrelor in Germany from the perspective of the Statutory Health Insurance (SHI). **METHODS:** : A two-part decision-analytic model, comprising a decision tree approach for the first year followed by a long-term Markov model, was constructed to estimate lifetime costs and life year gained (LYG) of treating ACS patients for one year with ticagrelor/ASA compared with clopidogrel/ASA. Data for the first year were derived from the PLATO trial. For the long-term model the German lifetable from the cause-of-death-statistics and selected conservative assumptions were utilized to extrapolate survival conditional on whether a non-fatal MI, a non-fatal stroke or no event occurred during the first year. Costs were based on official tariffs (e.g. DRGs) and published literature. For the base case daily cost of €2.99 was applied for ticagrelor. Daily cost for clopidogrel was applied in a range from €0.38 (lowest generic) to €2.44 (Plavix) with an average generic cost of €0.68 (base case). Extensive probabilistic, uni- and multivariate sensitivity analyses were performed. **RESULTS:** : Treatment with ticagrelor was associated with 0.16 LYG versus clopidogrel. The cost per LYG in the base case was €3,361. Overall the cost per LYG ranged from €-430 (dominant situation) to €4,077 compared with clopidogrel (Plavix vs. lowest generic). Results were consistent