

effectiveness ratio (ICER). Bootstrapping technique was applied for assessing uncertainty in cost-effectiveness analyses. The robustness of findings was tested in sensitivity analyses. **RESULTS:** Although there were no significant differences in medication adherence and hospitalization outcomes between two groups, patients in CR programs had a gradually improved medication adherence and lower hospitalization over time. Mean annual costs (2003 value) were \$3172 and \$2092 per patient for CR group and control group, respectively. The ICER was \$538 for 1% improvement in medication adherence and \$1080 for an additional hospitalization avoided. **CONCLUSIONS:** CR programs offered benefits of improving medication adherence and reducing hospitalization over time although it was costly in the beginning of its provision. Trade-off of increase in costs for the increase in benefits should be considered.

## PCV50

## COST EFFECTIVENESS ANALYSIS OF AZILSARTAN MEDOXOMIL AND CHLORTHALIDONE FIXED DOSE COMBINATION THERAPY FOR TREATMENT OF HYPERTENSION

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**OBJECTIVES:** To analyze the cost-effectiveness of treating hypertensive patients with azilsartan medoxomil and chlorthalidone fixed dose combination (AZL-M/CLD FDC) therapy compared with other angiotensin receptor blocker (ARB) and hydrochlorothiazide (HCT) combinations commonly available in the US market. **METHODS:** A Markov Cohort Simulation approach was utilized. Simulated patients start in a hypertensive state and are followed over multiple time periods as they transition between mutually exclusive health states. Cost per Quality Adjusted Life Year (Cost/QALY) and Incremental Cost-effectiveness Ratios (ICERs) are calculated over all possible dose combinations. Cardiovascular disease (CVD) risks were based on the Framingham risk equations. FDCs of HCT and eight ARBs commonly used in the US market (Atacand HCT, Avalide, Benicar HCT, Hyzaar, Diovan HCT, generic Losartan HCT, Micardis HCT and Teveten HCT) were included in the analyses. **RESULTS:** Results suggest that AZL-M/CLD FDC is less expensive and more effective in lowering BP versus all branded ARB/HCT FDC comparators. When considering average costs and the CVD risks based on the Framingham risk equations for all therapies over a five year time horizon, AZL-M/CLD FDC would remain the least expensive and most effective branded ARB/Diuretic FDC therapy up to a 23.5% unit cost increase with the average office SBP reduction of -22.3% and up to 18.1% unit cost increase with the 24-hour ambulatory BP reduction of -17.0%. **CONCLUSIONS:** AZL-M/CLD FDC is predicted to be less expensive and more effective in reducing blood pressure and cardiovascular risk when compared to all branded ARB/HCT FDC comparators during a five year time horizon.

## PCV51

## DABIGATRAN VERSUS WARFARIN FOR ATRIAL FIBRILLATION IN COLOMBIA

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**OBJECTIVES:** To estimate the cost-effectiveness of Dabigatran compared to Warfarin in non-complicated atrial fibrillation in Colombia. **METHODS:** We developed a Markov model to represent the health states of atrial fibrillation and its complications; 6 health states and 2 transitional states were considered, including disabling and non-disabling stroke, myocardial infarction, pulmonary embolism and death. Major and minor hemorrhage were considered transitory in the model. Probabilities were derived from published clinical trials. Resource use was estimated from the Colombian Society of Cardiology guidelines and validated to adjust to usual practice. Direct medical costs were derived from different sources (public and private) and indirect costs (predicted wages lost and transportation costs) were obtained from the most recent National Health Survey. Utilities were obtained from a systematic literature review. Two separate analysis, payer and societal perspective, were performed in a 20-year horizon. Maximum and minimum values of effectiveness and resource use were included in the sensitivity analysis. The results were discounted at 3% annually. **RESULTS:** After 20 years of follow up, discounted direct medical costs accounted for USD\$70,500 for Warfarin and \$78,840 and \$79,860 for 150mg and 110mg of Dabigatran, respectively. When taking into account indirect costs, Warfarin increased their costs by 13% while Dabigatran costs were increased by 9%. Estimated life years for Dabigatran were higher (9.40 and 9.29 for 150mg and 110mg, respectively) as well as the QALYs (8.48, 8.39) than for Warfarin 9.09 LY and 8.12 QALYs. The calculated ICER was \$23,760 and \$34,690 per additional QALY when taking into account direct costs and even lower when considering indirect costs. **CONCLUSIONS:** In Colombia, the use of Dabigatran for the management of non-complicated atrial fibrillation compared to Warfarin increases years of life and QALYs. Assuming a similar willingness-to-pay as for other cardiovascular interventions, dabigatran is a cost-effective intervention.

## PCV52

## URAPIDIL IN TREATMENT OF HYPERTENSION URGENCIES IN THE RUSSIAN FEDERATION: COST-EFFECTIVENESS ANALYSIS

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**OBJECTIVES:** To assess the cost-effectiveness of urapidil compared with standard treatment of hypertension urgencies **METHODS:** A decision tree was used to simulate the effects of urapidil and standard therapy drugs such as captopril, clonidine, nifedipine, metoprolol, magnesium sulphate, furosemide, enalaprilat. Standard therapy drugs were revealed after observational study of prehospital treatment of hypertension crisis. The efficacy of drugs was obtained from clinical trials, while

medical care costs were estimated from standard of treatment of hypertension urgencies developed and published by Ministry of public health. A cost-effectiveness ratio of urapidil was compared with other drugs. At the last stage double phase sensitivity analysis was conducted. **RESULTS:** A CER of urapidil was the lowest (1942.89 RUB/64.73\$) in comparison to other drugs (captopril-1966.34 RUB/65.53\$; metoprolol-2191.43 RUB/73.03\$; enalaprilat - 2443.52 RUB/81.45\$; nifedipine-2485.71 RUB/82.83\$, furosemide-2505.53 RUB/83.5\$; clonidine-2558.12 RUB/85.26\$; ; magnesium sulphate -2932.92 RUB/97.73\$). Sensitivity analysis demonstrated stability of results, changing cost of hospitalization and cost of urapidil the advantage of urapidil from the position of "cost-effectiveness" was still obviously. **CONCLUSIONS:** Treatment of hypertension urgencies with urapidil is a dominated alternative from the perspective of the health economics.

## PCV53

## A COST-EFFECTIVENESS ANALYSIS COMPARING DABIGATRAN AND STANDARD TREATMENT FOR STROKE PREVENTION IN ATRIAL FIBRILLATION IN SLOVAKIA

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**OBJECTIVES:** To compare the costs and effectiveness of dabigatran etexilate with current standard treatment in patients with non-valvular atrial fibrillation (NVAF), from the Slovakian health care system perspective. **METHODS:** A previously published Markov cohort model was adopted to estimate the outcomes of patients with dabigatran (150mg BID, 110mg BID) in its labelled indication during their lifetime for the following health states: ischemic and haemorrhagic stroke, transient ischemic attack, systemic embolism, intracranial and extracranial haemorrhage, acute myocardial infarction, minor bleeds and death. Data on event rates and patient quality of life associated with different health states and patient survival time was based on the RE-LY trial and the literature. The base-case consisted of a cohort of patients with NVAF, CHADS<sub>2</sub> ≥ 1 and no contraindications to anticoagulation therapy. The modelled consequences of the clinical events were costs, disability and/or reduction in quality of life and death. Data on resource use associated with patient management and different events were estimated using a Slovakian expert panel, while unit prices were collected from the official sources update 2011. One-way sensitivity analyses was used on all relevant variables to test the robustness of the analysis. **RESULTS:** The dabigatran group had more life years and QALYs gained compared to standard treatment (warfarin, aspirin, clopidogrel and no treatment); these gains were primarily driven by a lower incidence of the intracranial events and systemic embolism. A cohort of 5,000 patients treated with dabigatran during their lifetime gained 40,238 QALYs (standard: 38,178 QALYs) with incremental costs of €35.9mill (standard: €37.3 mill). The incremental cost-effectiveness ratio (ICER) of dabigatran versus standard treatment was estimated at €17,437, below the Slovakian acceptable threshold (€18,000 per QALY gained). The sensitivity analysis consistently demonstrated the cost-effectiveness of dabigatran. **CONCLUSIONS:** Dabigatran represents a cost-effective treatment for preventing strokes in patients with NVAF in Slovakia.

## PCV54

## COST-EFFECTIVENESS ANALYSIS OF DABIGATRAN COMPARED TO WARFARIN FOR STROKE PREVENTION IN ATRIAL FIBRILLATION IN A MEDICARE POPULATION

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**OBJECTIVES:** Dabigatran was approved in the United States to reduce the risk of stroke and systemic embolism in patients with non-valvular atrial fibrillation (AF). Dabigatran has several potential advantages over the current standard of care (warfarin), including a generally better side effect profile, fewer drug interactions, and no international normalized ratio (INR) monitoring, but it is considerably more expensive. The objective of this analysis was to determine the cost-effectiveness of dabigatran versus warfarin for AF in a Medicare population. **METHODS:** A Markov model was used to simulate outcomes for patients aged 65 with AF and a (CHADS<sub>2</sub>) congestive heart failure, hypertension, age, diabetes, prior stroke [doubled] score ≥ 1. A 5-year time horizon and a managed care perspective were employed in this analysis. Data comparing the clinical performance of dabigatran and warfarin was derived from the RE-LY trial. Quality-adjusted life-years (QALYs) were used to assess outcomes and utility weights were obtained from systematic reviews. Direct medical costs associated with complications from AF were based on hospitalization costs for diagnostic-related groups and reported in U.S. 2011 dollars. **RESULTS:** Over a 5-year period, the incremental cost-effectiveness ratio (ICER) for dabigatran 150 mg was \$26,551 per QALY compared to warfarin. The ICER was most sensitive to the utility associated with the well state for each of the alternatives as well as the price of dabigatran, warfarin, and INR monitoring needed for warfarin therapy. In probabilistic analyses, dabigatran was cost-effective in 91% of simulations at a \$50,000/QALY threshold. **CONCLUSIONS:** Prescribing dabigatran increases quality-adjusted life expectancy for AF patients at a cost considered acceptable by American payers.

## PCV55

## COST-EFFECTIVENESS OF ROSUVASTATIN VERSUS EZETIMIBE/SIMVASTATIN FIXED COMBINATION IN REACHING CHOLESTEROL GOALS FOR MEXICAN PATIENTS

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