treated was 2,575 for fondaparinux and 2,668 for enoxaparin. Over 65% of total costs were attributed to the invasive treatment (PCI and revascularization). Drug costs (in-hospital therapies) accounted for 10% (fondaparinux) and 12% (enoxaparin) of total costs. The estimated rates of cardiovascular events were 7.3% and 9.9% for fondaparinux and enoxaparin, respectively. Results kept unchanged on days 30 and 180 post-NSTE-ACS. Sensitivity analysis confirmed base-case results.

CONCLUSIONS: Fondaparinux was dominant over enoxaparin (lower costs, better long-term benefits). The budget impact after 5 years of anticoagulant substitution (at 20% constant adoption rate per year) could reach 90 million BRL in savings for the Brazilian MoH and healthcare system.

PCV48
COST-EFFECTIVENESS ANALYSIS OF ANTIARRHYTHMIC THERAPIES FOR THE TREATMENT OF SUPRAVENTRICULAR TACHYCARDIA AND SURGICALLY INDUCED TACHYCARDIAS AND HYPERTENSION
Dexter F1,2, Yang J2, Carlton R3, Bramley T3, Harb G2
1University of Iowa, Iowa City, IA, USA, 2Baxter Healthcare Corporation, New Providence, NJ, USA, 3Caremark International, Inc., Palm Harbor, FL, USA

OBJECTIVES: The objective of this analysis was to estimate the cost-effectiveness of commonly used antiarrhythmic agents for the treatment of supraventricular tachycardia (SVT) and intraoperative/postoperative tachycardia and hypertension.

METHODS: A decision tree model was built to examine the cost-effectiveness of esmolol, metoprolol, diltiazem and amiodarone for the treatment of SVT and intraoperative/postoperative tachycardia and hypertension from a hospital perspective. The default pharmacy costs in the model were based on publicly available wholesale acquisition costs (WAC). Literature-based values were used for the rates and medical costs of adverse cardiac events including myocardial infarction, stroke, postoperative tachycardia and hypertension. The primary efficacy parameter was the rate of successful heart rate control, was based on literature values. The outcome was the cost per successful heart rate control with incremental cost-effectiveness ratios (ICERs) calculated. No discounting was applied due to the short time frame of the analysis.

RESULTS: The probabilistic sensitivity analysis, a Monte Carlo simulation consisting of 1,000 simulations was conducted to test the joint uncertainty of all modeling parameters simultaneously. Results: The total cost of therapy was $1,250.82, $2,630.19, $2,280.21, and $1,555.14 for esmolol, metoprolol, diltiazem and amiodarone, respectively. The rate of successful heart rate control was 90% (esmolol), 64% (metoprolol), 90% (diltiazem) and 74% (amiodarone). The cost per successful heart rate control was $1,389.80 (esmolol), $4,109.67 (metoprolol), $2,533.57 (diltiazem), and $2,101.54 (amiodarone). The ICER of esmolol dominated metoprolol, diltiazem and amiodarone in the probabilistic sensitivity analysis, esmolol was the most cost-effective antiarrhythmic in 99.6% of simulations. One-way sensitivity analyses showed the model was most sensitive to the cost of hypotension and bradycardia.

CONCLUSIONS: In this model, esmolol was the least costly and most effective antiarrhythmic. Esmolol is cost-effective in comparison with metoprolol, diltiazem and amiodarone for the treatment of SVT and intraoperative/postoperative tachycardia and hypertension.

PCV49
COST-EFFECTIVENESS ANALYSIS OF RIVAROXABAN VERSUS DABIGATRAN AND ENOXAPARIN FOR THE PREVENTION OF VENOUS THROMBOEMBOLISM AFTER TOTAL KNEE REPLACEMENT
Verbovich E1,3,4, Krasnikov A1,2,3, Vorobyev P2, Pashnikov S2, Lukyantseva D2, Bashlakova I2
1Russian Society for Pharmacoeconomics and Outcomes Research, Moscow, Russia, 2Moscow State Medical University named after I.M. Sechenov, Moscow, Russia

OBJECTIVES: The primary objective of the study was to evaluate the effectiveness and cost-effectiveness of rivaroxaban compared with dabigatran and enoxaparin for the prophylaxis of venous thromboembolism in patients undergoing elective total knee replacement (TKR) in the context of Russian health care system.

METHODS: A decision-tree model on the choice of regimens for thromboprophylaxis after TKR was adopted from the model developed by McCullagh et al. (2009). The model outcomes were mortality, occurrence of distal and proximal deep vein thrombosis (DVT) and pulmonary embolism (PE). The model was developed based on a review of the literature. The principal model inputs were the probabilities of occurrence of the events (DVT and PE). The probabilities were derived from the literature and adjusted for drug price changes over time. Total plan sensitivity estimates are derived from NHTANES. Sensitivity analysis examines variation in model parameters including drug prices, indication use, and discount rates. RESULTS: Assuming increasing statin use over time (with a mean of 1m new users per year) and a 3% discount rate, the cumulative incremental cost-effectiveness ratio (ICER) for atorvastatin vs. simvastatin ranges from cost saving at release to a maximum of $45,066 per QALY after six years of generic simvastatin in 2012. Over the full modeled life cycle (1997-2030), the cumulative ICER of atorvastatin is $20,331 per QALY. Results were similar in sensitivity analysis.

CONCLUSIONS: The ICER of atorvastatin varies across the product life cycle, rising during the period between generic simvastatin entry and generic atorvastatin entry, and declining afterwards. Over its life cycle, atorvastatin is associated with a cumulative ICER of $20,331 per QALY, with a maximum of $45,066 per QALY.

PCV50
COST-EFFECTIVENESS ANALYSIS COMPARING DABIGATRAN AND ADJUSTED-DOSE WARFARIN FOR STROKE PREVENTION IN ATRIAL FIBRILLATION
Zhao Y1, Lim L1, Coleman C2
1Yale-Griffin Hospital, Derby, CT, USA, 2University of Connecticut School of Pharmacy, Storrs, CT, USA

OBJECTIVES: Atrial fibrillation has been estimated to affect as many as 2.3 million Americans, making it the second most common cardiovascular condition in the United States. Atrial fibrillation has been found to increase patient’s risk of stroke by 5-fold. We sought to calculate the projected total treatment costs, quality-adjusted life years (QALYs) and cost-effectiveness of dabigatran and adjusted-dose warfarin for stroke prevention in patients with atrial fibrillation.

METHODS: This three-state Markov transition model (healthy with atrial fibrillation, disability, and death) simulated the treatment costs, quality-adjusted survival and cost-effectiveness of dabigatran and adjusted-dose warfarin (international normalized ratio of 2-3) for stroke prevention in atrial fibrillation. Our base-case consisted of a hypothetical cohort of 665 year old patients with atrial fibrillation, a moderate risk of stroke (CHADS2=2) and no contraindications to anticoagulation therapy. The parameters were adopted from the literature and adjusted for drug price changes over time. Cost-effectiveness was calculated over a patient’s lifetime and using a societal perspective (excluding indirect costs). One-way and threshold sensitivity analyses were performed on all relevant variables.

RESULTS: The mean quality-adjusted life expectancy of simulated patients was 12.9 and 12.2 years for those receiving dabigatran and warfarin. Total lifetime treatment costs were $464,649 and $181,904. The incremental cost-effectiveness ratio was $40,580. Upon one-way sensitivity analysis, our conclusions were found to be sensitive to changes in dabigatran cost and the differential efficacy of the two strategies. Threshold sensitivity analysis further revealed that daily dabigatran costs greater than $13 per day and differential efficacy between the two strategies of less than 0.15% per year resulted in incremental cost-effectiveness ratios greater than $50,000 per quality-adjusted life year gained.

CONCLUSIONS: Our analysis suggested that dabigatran is cost-effective for stroke prevention. However, this conclusion varied with changes in dabigatran costs and the antithrombotic efficacy of the two treatment strategies.