base-case analysis. RESULTS: Base case analysis, resulted in an ICER of £15,681 per QALY for EVAR versus OSR. The average QALY gain at 30 years post surgery was 0.072 for EVAR compared with OSR. Results were most sensitive to the relative risk of short-term mortality, cost of the EVAR device and long-term rate of secondary interventions in the EVAR group. CONCLUSIONS: The results suggest that EVAR is cost-effective for non-ruptured AAA versus OSR with a probability of 66% and 60% based on willingness-to-pay thresholds of £30,000 and £20,000, respectively.

PCV70

COST-EFFECTIVENESS OF CLOPIDOGREL IN COMBINATION WITH ASPIRIN FOR ACUTE CORONARY SYNDROMES IN AUSTRALIA
Liew D1, Cordony A2
1The University of Melbourne, Melbourne, Victoria, Australia, 2Sanofi-Aventis Australia, Macquarie Park, NSW, Australia

OBJECTIVES: To determine if clopidogrel plus aspirin is cost-effective compared to aspirin alone for patients following ACS, from the Australian health care perspective. METHODS: A Markov model was constructed by extrapolation of data from the Australian Acute Coronary Syndromes Prospective Audit (ACACIA) registry (n = 2553) in the first model cycle, and the Reduction in Atherothrombosis for Continued Health (REACH) registry (n = 2567 Australian patients) in subsequent cycles. Decision analysis was applied to compare clopidogrel plus aspirin against aspirin alone. Efficacy data were drawn from the Clopidogrel in Unstable Angina to Prevent Recurrent Events (CURE) trial. A utility study was conducted in 2007 with 86 participants using health states validated by clinical experts. Drug and disease costs were obtained from literature and health care reimbursement fees, and updated using Australian health price indices. An annual discount rate of 5% was applied to all costs and effects beyond one year in accordance with reimbursement guidelines. Twenty sensitivity analyses were undertaken, varying the 95% confidence intervals surrounding efficacy measures from CURE, uncertainty in cost and utility inputs and variations to time horizons and discount rates. RESULTS: The base-case incremental cost-effectiveness ratio (ICER) with a ten-year time horizon was A$14,496/QALY and remained below the unofficial cost-effectiveness threshold of A$40,000/QALY throughout all sensitivity analyses. Treatment remained cost-effective up to an inflated clopidogrel cost of 229%, and even when acute hospitalization costs were removed (A$20,267/QALY). The five-year ICER was A$20,124/QALY. Sensitivity analyses demonstrated that the ICER ranged from A$6443/QALY when the risk of events observed in ACACIA were applied to all years, up to A$36,974/QALY using the 95% upper confidence interval for efficacy. CONCLUSIONS: Clopidogrel with aspirin represents a highly cost-effective treatment option for patients with ACS in Australia. This was confirmed by the Australian reimbursement authority’s recent recommendation that treatment with clopidogrel plus aspirin be reimbursed for ACS patients.

PCV71

COST/UTILITY ANALYSIS IN PATIENTS WITH DRUG REFRACTORY CONCOMITANT ATRIAL FIBRILLATION IN SPAIN
López Gude MJ1, Rodriguez Bezos D2, Rodríguez Barrios JM2, Serrano Contreras D2
1Hospital 12 Octubre, Madrid, Spain, 2Medtronic Iberia, Madrid, Spain

OBJECTIVES: Atrial fibrillation is the most common arrhythmia in the clinical practice. It is related with an important morbidity, a decrease in patients’ quality of life and is a risk factor of suffering a stroke. The Spanish estimated atrial fibrillation prevalence is 2.52%, and is higher over 60 years. Radiofrequency surgical ablation is a treatment alternative to restore sinus rhythm in drug-refractory atrial fibrillation patients. The main objective of this study is to develop a five-year cost-utility analysis including the different treatment alternatives in drug-refractory concomitant atrial fibrillation patients in the Spanish setting. METHODS: A Markov model was developed to simulate the evolution of a 1000 cohort of over 40 years old patients with paroxistical and persistent atrial fibrillation that could be treated with: non ablation, surgical ablation and catheter ablation. The model included four heath states: sinus rhythm, atrial fibrillation, dependent stroke and death. The time horizon was five years, with a cycle length of three months. The data of cost and effects were obtained from the published literature and experts opinion. Costs and effects were discounted at 3.5%. A sensibility analysis was developed to determine the robustness of the main variables of the model. RESULTS: Based on 1000 patients simulation with concomitant atrial fibrillation, preliminary results show that the QALY gained were 3.79, 4.25, and 4.23, respectively for no ablation, surgical ablation and catheter ablation. The costs per patient were respectively 8889, 11,157 and 11,865. The cost per QALY gained of the most effectiveness option (surgical ablation) when compared with no ablation is €4909. Surgical ablation is a dominant option vs. catheter ablation. CONCLUSIONS: These preliminary results show that surgical ablation is a cost-effective treatment option in drug refractory concomitant atrial fibrillation patients in the Spanish setting, with less cost and a higher efficacy than the catheter ablation.
analyses, dominance was lost in ACEi-using and NYHA class II patients; in these subgroups, the mean ICUR is €17,000–27,000/QALY. CONCLUSIONS: Valsartan is expected to be cost-effective for the treatment of Italian patients with mild-to-severe CHF, and can result cost-saving in selected patients, as compared to current standard care.

PCV73
COST-EFFECTIVENESS OF ENDOVASCULAR ANEURYSM REPAIR VERSUS OPEN SURGICAL REPAIR: ACUTE INFRARENAL ABDOMINAL AORTIC ANEURYSM IN AN EMERGENCY SETTING
Hayes P1, Ryan J2, Jensen M2, Harrison L3, Brasseur P3
1 Addenbrooke’s Hospital, Cambridge, UK, 2 Abacus International, Bicester, UK, 3 Medtronic Europe Sàrl, Tolochenaz, Switzerland
OBJECTIVES: To determine the cost-effectiveness of endovascular aneurysm repair (EVAR) versus open surgical repair (OSR) for acute (ruptured or symptomatic intact), infrarenal abdominal aortic aneurysm (AAA) in an emergency setting. METHODS: A two-stage cost-utility model was developed for the recent appraisal of EVAR by the National Institute for Health and Clinical Excellence in England and Wales to capture the lifetime costs and benefits of EVAR for non-ruptured AAA. This model was adapted to capture the costs and health outcomes of EVAR for acute AAA. The model population represented a 70-year-old, fit for open surgery, with an acute AAA. A decision-tree model captured the short-term costs and health outcomes of patients during the first 30 days post repair, followed by a Markov model, with monthly cycles during the first 24 months and yearly cycles thereafter, until death. Clinical endpoints included mortality, complications and secondary interventions. Primary data sources included a meta-analysis of 23 studies and the EVAR I randomised controlled trial. Costs were applied from trial data and national reference sources. A discount rate of 3.5% was applied to costs and health outcomes. Univariable and multivariable sensitivity analyses were performed for all parameters. An incremental cost-effectiveness ratio (iCER) reflecting incremental lifetime costs per quality-adjusted life-year (QALY) gained was calculated for the base-case analysis. RESULTS: EVAR dominates OSR in the base case analysis. The average QALY gain at 30 years post surgery was 0.064 for EVAR compared with OSR. The results were not sensitive to changes in parameters. CONCLUSIONS: The results suggest that EVAR for acute AAA is cost-effective versus OSR with probabilities approaching 100% based on willingness-to-pay thresholds of £20,000 and £30,000.

PCV74
COST-EFFECTIVENESS OF DABIGATRAN ETEXILATE FOR THE PRIMARY PREVENTION OF VENOUS THROMBOEMBOLISM IN PATIENTS UNDERGOING TOTAL HIP OR TOTAL KNEE REPLACEMENT SURGERY
Wolowacz S1, Roskell N1, Maciver F1, Beard S1, Robinson P2, Plumb J1
1 RTI Health Solutions, Manchester, UK; Boehringer Ingelheim Ltd, Bracknell, UK, 2 Boehringer Ingelheim GmbH, Ingelheim am Rhein, Germany
OBJECTIVES: To evaluate the cost-effectiveness of Dabigatran (DBG) compared to low-molecular-weight heparin (LMWH), for the prevention of venous thromboembolism (VTE) following total hip or knee replacement surgery (THR/TKR) from the perspective of the UK NHS. METHODS: DBG (220 mg once daily) was compared to LMWH in patients undergoing THR (prophylaxis duration 28–35 days) and TKR (6–10 days). The 10-week post-surgery acute phase was modeled via a decision tree. A Markov process (1 year cycle length) modeled long-term events (recurrent VTE, post-thrombotic syndrome [PTS] and consequences of intracranial hemorrhage) for patient’s remaining lifetimes. Relative risks for VTE and bleed events were derived from the DBG phase III studies, RE-NOVATE and RE-MODEL which compared DBG with enoxaparin 40 mg once daily. Probabilities of long-term events were estimated from published longitudinal studies. Drug costs (for LMWH a weighted average was used), resource use associated with administration of prophylaxis and the management of clinical events, as well as utility weights, were taken from national sources and published literature. RESULTS: Thromboprophylaxis with DBG was less costly than LMWH in TKR and substantially less in THR, since no nursing time is required either in hospital or following discharge for treatment administration. VTE and bleeding rates were similar for DBG and LMWH (all differences non-significant). The probabilistic analysis estimated that DBG saved £93 and £17 per patient on average in THR and TKR respectively; the probability of cost-effectiveness was 99% in THR and 81% in TKR at a willingness to pay threshold of £20,000 per QALY. Results were shown to be robust across a range of further sensitivity analyses. CONCLUSIONS: DBG is cost-saving compared to LMWH and non-inferior in terms of efficacy and safety to enoxaparin 40 mg once daily. Therefore DBG can confidently be regarded as cost-effective for the prevention of VTE in patients undergoing THR or TKR.

PCV75
THE IMPACT OF POSTPRANDIAL PEAKS ON CARDIOVASCULAR COMPLICATIONS BEYOND THE HBA1C LEVEL—A HEALTH ECONOMIC ASSESSMENT
Neesser K, Heister F, Weber C
Institute for Medical Informatics and Biostatistics, Basel, Switzerland
OBJECTIVES: An increasing number of studies is demonstrating that postprandial blood glucose peaks (PPG), which are not necessarily reflected by higher HbA1c values, represent a strong risk factor for the development of cardiovascular complications. This study aims to assess the economic effects of an improved glycemic control by self-monitoring of blood glucose (SMBG) with respect to coronary artery disease (CAD). METHODS: We used a Markov model based on the UKPDS risk engine, comparing two type 2 diabetic cohorts (100% male, age 57 years, BMI 29.0, systolic blood pressure 140 mmHg, total cholesterol 5.98 mmol/l, HDL 1.27 mmol/l, baseline HbA1c 8.0%), whereas one cohort performed (SMBG) and the other not. In a first scenario, one performed (SMBG) and the other not. In a first scenario, an additional reduction of PPG from 10 mmol/l to 7.8 mmol/l was assumed in the SMBG group. RESULTS: In scenario 1 the mean life expectancy was 8.35 years (SMBG) vs. 8.19 years and 8.01 years (SMBG / No-SMBG group, respectively). In scenario 2 the mean life expectancy was 8.19 years and 8.01 years (SMBG / No-SMBG group, respectively). The cost effectiveness ratio (ICER) of using SMBG was €228,800 per life year gained (LYG) in scenario 1 and €20,083/LYG (scenario 2). CONCLUSIONS: Using only HbA1c as risk factor for CAD leads to an underestimation of the potential benefits of SMBG compared to the combination of HbA1c and PPG. This may lead to a restricted use or even to the exclusion of a worthwhile health technology. The present assessment is focused only on CAD and represents a conservative approach. Further, it has to be examined whether PPG shows similar effects in other diabetes related complications.