were driven by the lower costs of oral administration relative to subcutaneous injection and a lower rate of long-term complications. A number of one-way sensitivity analyses showed that the model was robust. CONCLUSIONS: Rivaroxaban dominates enoxaparin as prophylaxis against VTE following THR and TKR in Korea, reducing overall costs and improving health outcomes.

OBJECTIVES: To evaluate the cost-effectiveness of dabigatran etexilate (DBG) compared to enoxaparin in the prevention of venous thromboembolism (VTE) following total hip replacement (THR) or total knee replacement (TKR) from the perspective of the Portuguese NHI. METHODS: DBG (220 mg once daily) was compared to enoxaparin (40 mg once daily) in patients undergoing THR (prophylaxis 28-35 days) and TKR (6-10 days). A decision tree was used to model the ten week post-surgery acute phase. A Markov process modeled long-term events such as recurrent VTE, post-thrombotic syndrome and intraocular hemorrhage for patient’s remaining lifetimes. Relative risks for VTE and bleed events were derived from the DBG phase III trials, RE-NOVATE and RE-MODEL which compared DBG with enoxaparin 40 mg once daily. Published longitudinal studies were used to estimate the probabilities of long-term events. Resource use associated with administration of the prophylaxis and the management of clinical events was obtained from a national multi-centre prospective study involving 50 patients. Unit costs were taken from national sources. Utility weights were taken from published international literature. RESULTS: VTE and bleeding rates were similar for DBG and enoxaparin. DBG was marginally more expensive than enoxaparin in TKR but less costly in THR, since no nursing time for administration of treatment is required in hospital or following discharge. The probabilistic analysis estimated that DBG cost an additional €11 per patient in TKR (ICER €2,848/QALY) and saved €253 per patient in THR. The probability of DBG being cost-effective was 79% in TKR and 99% in THR at a willingness to pay threshold of €20,000 per QALY. Results proved to be robust across a wide range of sensitivity analyses. CONCLUSIONS: DBG is cost-saving in THR compared to enoxaparin and non-inferior in terms of efficacy or safety. Thus, DBG is cost-effective for the prevention of VTE in patients undergoing THR.

OBJECTIVES: To evaluate the incremental cost-effectiveness of four angiotensin receptor blockers in hypertension, in a large US managed care setting. METHODS: A decision analysis model was developed to estimate costs to reach JNC-VI blood pressure (BP) goal for four ARBs: olmesartan (OLM), valsartan (VAL), irbesartan (IRB), and losartan (LOS). The study period was 5/1/01 to 12/31/06. Patients were 218 years, had 22 claims for the Index ARB, a medical claim for HTN (ICD-9 codes 401.xx-404.xx), and minimum 6 months pre- and 9 months post-index eligibility. Outcomes were all-cause and HTN-attributable actual plan costs to achieve JNC-7 goal (<140/90, <130/80 with diabetes mellitus, DM). Costs were calculated for over 120,000 eligible patients receiving ARBs in the plan. BP goal attainment was determined from 1293 medical charts and linked to costs in the claims database. Model robustness was tested using Monte Carlo simulation and probabilistic sensitivity analysis (PSA). RESULTS: 121,472 patients met inclusion criteria. Mean age was 51.2 years, 22 % had DM. ARB cohorts were (n OLM (19,525); VAL (59,176); IRB (17,226) and LOS (25,546). OLM was found more effective in achieving JNC-7 goal, and to incur lower all-cause and HTN-attributable costs, dominating other options. The CE ratios per percent of patients to reach HTN goal for OLM were $8,964 (all-cause costs) and $1,986 (HTN-attributable costs), compared to the ratios for LOS ($10,848 and $3,291), VAL ($10,537 and $3,577) and IRB ($13,397 and $4325). (All costs adjusted to 2006 CPI). Monte Carlo and PSA results were consistent with the baseline analysis. CONCLUSIONS: Compared to VAL, IRB and LOS, OLM was found to be the most cost-effective of the four ARBs for the treatment of hypertension in a large US managed care population.

OBJECTIVES: To estimate cost-effectiveness of either the public health strategy of increasing tobacco taxes or implementing smoking bans in public venues as a strategy for reducing tobacco use. METHODS: Quasi and mortality rates for smokers and nonsmokers were obtained from existing published literature and incorporated into a Markov Chain Monte Carlo model. The model included the public policies of taxes or bans for the incidence of acute myocardial infarction (AMI) and related mortality. The model incorporated the value of statistical life, and medical costs associated with AMI. RESULTS: The expected life years under conditions of taxes, bans, or neither (base-case) were similar at 60.23, 60.25, and 60.37 per smoker respectively. Implementation of bans resulted in net societal losses of $1476 and taxes $984 per smoker over the “no policy” condition. Costs were lowest under the strategy of