SAPIEN® transcatheter implantation therapy versus drug treatment with or without aortic balloon valvuloplasty. The outcomes used were effectiveness (as measured by clinical outcomes chance of successful implantation procedure and safety). In results with acute aortic regurgitation, cost-effectiveness ratio (ICER) per years saved and years free from serious adverse events. Probabilistic sensitivity analysis was performed on the main parameters of the model. RESULTS: Compared with medical therapy with or without aortic balloon valvuloplasty, the employment of the SAPIEN® valve predicted to significantly reduce resource utilization by HKD6,348 (USD814, USD=7.89HKD) and stroke treatment cost by HKD45,226 (USD5,798) per patient over the first 90 days post-surgery. Events that occur over the long term are modeled using a Markov structure, which provides the option to simulate events occurring over the short-term and long-term. We calculated quality adjusted life years (QALY) for apixaban, as well as similar costs -showing small savings when compared to rivaroxaban the model results show similar long-term gains in QALY's and LYG for apixaban mainly due to lower bleeding costs. CONCLUSIONS: Apixaban is a cost-effective alternative in preventing VTE in patients undergoing THR or TKR in Colombian private setting.

PCV97 COST-EFFECTIVENESS OF THROMBOLYSIS FOR MYOCARDIAL INFARCTION (MI) IN TOWARDS A PARADIGM SHIFT IN ANTICOAGULATION? TOO SOON TO CONCLUDE ON COST-EFFECTIVENESS OF NEW ANTICOAGULANTS

OBJECTIVES: Most patients with myocardial infarction in Colombia are treated with fibrinolysis, despite tenecteplase being recognized as more effective. Our objective was to evaluate the cost-effectiveness and cost-utility of tenecteplase compared to streptokinase, in the treatment of ST elevation myocardial infarction.

METHODS: We designed a decision tree model, from the perspective of the Colombian health system. We calculated quality adjusted life years (QALY) gained (using data Tuft's registry), as well as cost per death, and cost per major outcome averted (death, stroke, severe heart failure). The costs were estimated in Colombian pesos for 2012 (Exchange rate USD=1COP17875) using national tariff manuals (Social Security 2001 with inflation adjustment) and resource use obtained from our local university hospital, validated by national expert panel.

We performed a probabilistic and deterministic sensitivity analysis. RESULTS: The average total cost for the treatment of a tenecteplase treated patient was US$1456. The cost per incremental QALY gained with tenecteplase was US$1447, US$9530 per death averted, and US$14.6 per year QALY gained and life years gained (LYG) over a prophylaxis + five-year time horizon. A discount rate of 3.5% was used for both costs and outcomes. RESULTS: Results indicate that the use of apixaban is dominant compared to enoxaparin and dabigatran in the overall population for THR and TKR (less number of VTE events, total bleeds and deaths which generated higher number QALYs and lower overall costs). When compared to rivaroxaban the model results show similar long-term gains in QALY's and LYG for apixaban, as well as similar costs -showing small savings for apixaban mainly due to lower bleeding costs. CONCLUSIONS: Apixaban is a cost-effective alternative in preventing VTE in patients undergoing THR or TKR in Colombian private setting.

PCV96 THE COST-EFFECTIVENESS OF APIXABAN IN VENOUS THROMBOEMBOLISM PREVENTION IN PATIENTS UNDERGOING TOTAL KNEE OR HIP REPLACEMENT IN THE COLOMBIAN PRIVATE SECTOR

OBJECTIVES: To evaluate the cost-effectiveness of apixaban compared to enoxaparin, rivaroxaban and dabigatran in venous thromboembolism prevention (VTE) compared to placebo in the prophylactic use of the SAPIEN® valve implantation procedure. The results were expressed as the ratio of incremental cost per years saved and years free from serious adverse events, and probabilistic sensitivity analysis was performed on the main parameters of the model. RESULTS: Compared with medical therapy with or without aortic balloon valvuloplasty, the employment of the SAPIEN® valve predicted to significantly reduce resource utilization by HKD6,348 (USD814, USD=7.89HKD) and stroke treatment cost by HKD45,226 (USD5,798) per patient over the first 90 days post-surgery. Events that occur over the long term are modeled using a Markov structure, which provides the option to simulate events occurring over the short-term and long-term. We calculated quality adjusted life years (QALY) for apixaban, as well as similar costs -showing small savings when compared to rivaroxaban the model results show similar long-term gains in QALY's and LYG for apixaban mainly due to lower bleeding costs. CONCLUSIONS: Apixaban is a cost-effective alternative in preventing VTE in patients undergoing THR or TKR in Colombian private setting.

PCV95 COST-EFFECTIVENESS OF CATHETER ABLATION VERSUS ANTIARRHYTHMIC DRUG THERAPY FOR THE TREATMENT OF ATRIAL FIBRILLATION IN MALAYSIA

OBJECTIVES: To evaluate the cost-effectiveness of apixaban compared to enoxaparin, rivaroxaban and dabigatran in venous thromboembolism prevention (VTE) compared to placebo in the prophylactic use of the SAPIEN® valve implantation procedure. The results were expressed as the ratio of incremental cost per years saved and years free from serious adverse events, and probabilistic sensitivity analysis was performed on the main parameters of the model. RESULTS: Compared with medical therapy with or without aortic balloon valvuloplasty, the employment of the SAPIEN® valve predicted to significantly reduce resource utilization by HKD6,348 (USD814, USD=7.89HKD) and stroke treatment cost by HKD45,226 (USD5,798) per patient over the first 90 days post-surgery. Events that occur over the long term are modeled using a Markov structure, which provides the option to simulate events occurring over the short-term and long-term. We calculated quality adjusted life years (QALY) for apixaban, as well as similar costs -showing small savings when compared to rivaroxaban the model results show similar long-term gains in QALY's and LYG for apixaban mainly due to lower bleeding costs. CONCLUSIONS: Apixaban is a cost-effective alternative in preventing VTE in patients undergoing THR or TKR in Colombian private setting.

PCV94 ECONOMIC EVALUATION OF TICAGRELOR IN TREATING PATIENTS WITH ACUTE CORONARY SYNDROME IN HONG KONG: A COST-UTILITY ANALYSIS

OBJECTIVES: The multi-centered, double-blind, randomized PLATO trial on 16,824 patients from 43 countries has demonstrated that ticagrelor was superior in reducing the rates of cardiovascular mortality, myocardial infarction (MI), or stroke compared to clopidogrel (ACS) combined with aspirin but without a significant increase in major bleedings. This study aimed to evaluate the long-term cost-effectiveness of ticagrelor plus acetylsalicylic acid (ASA) versus clopidogrel plus ASA in patients with ACS in a Hong Kong perspective.

METHODS: A two-phase state-transition Markov model was developed to estimate the long-term economic and health outcomes measured as quality-adjusted life years (QALYs). PLATO data were utilized to estimate patients’ resource use (hospitalization beds, investigational interventions and blood products), rate of cardiovascular events (i.e. MI and stroke) and QALY’s for the first year. Outcomes from the second year onwards were extrapolated using results from the first year. Breakdown health care costs and time data were HK-specific and utility data were obtained from published literature. Time horizons were set at 1 year, 5 years and patients’ lifetime. All costs which were presented as 2012 figures and effectiveness were both expressed as 3% per annum. Incremental cost-effectiveness analyses were performed to test model robustness. RESULTS: Over a lifetime horizon, the use of ticagrelor led to improved clinical outcome with a discounted survival of 13.08 QALYs per patient in the ticagrelor treatment group compared to 12.91 in the clopidogrel treatment group. Despite its higher daily cost, ticagrelor was predicted to significantly reduce resource utilization by HKD6,348 (USD814, USD=7.89HKD) and stroke treatment cost by HKD45,226 (USD5,798) per patient over the first 90 days post-surgery. CONCLUSIONS: The treatment of ACS patients with lifetime use of ticagrelor is considered cost-saving compared with clopidogrel from a public health care provider perspective in HK.

PCV93 TOWARDS A PARADIGM SHIFT IN ANTICOAGULATION? TOO SOON TO CONCLUDE ON COST-EFFECTIVENESS OF NEW ANTICOAGULANTS

OBJECTIVES: To evaluate the cost-effectiveness of new oral anticoagulants (apixaban, dabigatran and rivaroxaban) compared relative to each other and relative to warfarin for stroke prevention in atrial fibrillation patients.

METHODS: We developed a decision analytic model, designed as a probabilistic Markov model containing 200 different probability distributions. The model included eight health states; atrial fibrillation (AF), heart failure, moderate stroke sequelae, severe stroke sequelae, atrial fibrillation with previous AMI, atrial fibrillation with previous stroke, atrial fibrillation with major gastrointestinal bleeding and death. Efficacy data was collected from a recently published report from the Canadian Health Technology Assessment Agency (CADTH). Epidemiological input data was gathered from registries. Data on Quality of Life were based on published EQ-5D data and costs were mainly based on national tariffs. The analysis was stratified according to risk of stroke as measured by CHADS2-VASc and risk of bleeding as measured by HAS-BLED. RESULTS: When the new drugs were compared relative to each other for medium risk patients, simulations indicated a 41% probability that apixaban is cost-effective, with 34% and 24% for dabigatran and rivaroxaban, respectively. For high risk patients, simulations indicated a 66% probability that dabigatran is cost-effective, with 29% and 15% for apixaban and rivaroxaban, respectively. When comparing each of the new anticoagulants with the old (warfarin), analyses indicate a probability between 21% and 60% that warfarin is still cost-effective. In separate analyses,