dent hypertension associated with the use of celecoxib and non-selective (NS) NSAIDs in a real world setting. METHODS: A cohort study was conducted using secondary data from the GE Centricity® Electronic Medical Record database, which contains the medical records of 3 million patients seen by 5000 physicians in 27 states across the US. The index date was defined as the date of the first NS NSAID or celecoxib prescription between January 1, 1999 and June 30, 2004. Patients were included if they were aged 18 or older and were enrolled for at least 365 days prior to the index date. NS NSAID users were matched to celecoxib users using propensity-based matching techniques by a 2:1 ratio. Multivariate Cox proportional hazard models were used for the analysis. RESULTS: The final sample consisted of 51,444 patients. Among the 17,148 celecoxib users, 222 (1.3%) had a new diagnosis of hypertension, while 446 out of the 34,296 NS NSAID users (1.3%) had a new diagnosis of hypertension. The crude incidence rate for hypertension was slightly higher for celecoxib users: 52.5 vs. 51.8 per 1000 patient per year for celecoxib and NS NSAID users, respectively. Relative to NS NSAID users, patients on celecoxib had a similar rate of post-exposure hypertension incidence in multivariate analyses (HR = 0.856–1.181). CONCLUSION: Results from a population-based cohort analysis of electronic medical records suggest similar rates of incident hypertension between celecoxib and NS NSAID users.

CARDIOVASCULAR STUDIES—Cost Studies

AN ECONOMIC ASSESSMENT OF THE CONTROL AND DETENTION PROGRAMS IN HYPERTENSIVE MEXICAN POPULATION (2005–2025)
Salinas-Escudero G1, Contreras-Hernandez I1, Duran-Arenas L1, Garduño-Espinosa J1, Mould-Quevedo J2
1Social Security Mexican Institute, Mexico City, Mexico; 2Pfizer Mexico, Mexico City, Mexico
OBJECTIVES: To assess the economic impact in the Mexican Health System of a hypertensive population preventive program (HPPP) in order to shift cardiovascular risk on the long-term. METHODS: Costs and health benefits were forecasted for the period 2005–2025 after the implementation of a control and detention program in hypertensive population in Mexico. Incidence and prevalence data was obtained from a Mexican National Survey (Encuesta Nacional de Salud 2000) for population between 20–59 yrs. Preventive actions included in the program were: opportune detention of hypertension with two measures of arterial hypertension per year to all adult population attended in the Mexican Health System. Secondary prevention actions consisted in changes in life styles and intensive pharmacologic treatment in patients with uncontrolled hypertension. Health care costs data was obtained from the Social Security Mexican Institute (IMSS) databases and the HPPP effectiveness was taken from published literature for worldwide similar preventive programs. Framingham tables were used to constructed disease progression simulations and effectiveness measures used in the assessment were the number of new cases of patients controlled and cardiovascular events avoided. The analysis was conducted from the health care payer’s perspective (only direct medical costs were used). RESULTS: Through 20-years analysis period, the total number of hypertensive cases remained unchanged. Nevertheless, the number of new hypertensive cases controlled increased in 74.8% which represented a reduction of 6.6 millions cases uncontrolled. On the same time horizon, the HPPP showed a decrease of 16.9% in the total number of cardiovascular events which represented approximately 1.7 millions less complications in the Mexican Health System. The latter could represent in the future net savings in US$1652 millions compared to the actual scenario. CONCLUSION: Preventive actions included in control and detention hypertensive programs resulted to be cost-effectiveness policies, and showed to be cost saving strategies in the long-term.

COMPARING THE COST OF MICROSURGERY AND RADIOSURGERY FOR THE MANAGEMENT OF VESTIBULAR SCHWANNOMA
Banerjee R, Moriarty J, Pollock B, Foote R
Mayo Clinic, Rochester; MN, USA
OBJECTIVES: To investigate differences in follow-up costs of patients undergoing microsurgical resection, which requires hospitalization, compared to stereotactic radiosurgery, an outpatient procedure, for the treatment of vestibular schwannoma. METHODS: Post-surgical medical utilization records and cost data were retrospectively gathered for 82 patients undergoing microsurgery or radiosurgery. Follow-up costs were obtained using administrative datasets and were discounted. Thirty-one patients did not have any follow-up care at our facilities. For patients seeking follow-up care elsewhere utilization records (prospectively gathered) were matched to our administrative costs using median values. To adjust for varying lengths of follow-up, the cohort was reduced to those having a minimum length of follow-up of 28 months. Results were verified with 36 months of follow up. RESULTS: In the initial cohort, age and patient location were significantly associated with surgery type. Radiosurgery patients tended to be older. Mean costs per month using a six month moving average for microsurgery patients initially were high and leveled off to below $200 per month. Conversely mean follow-up costs for radiosurgery patients started low and fluctuated through high and low cycles, reaching as high as $200 per month. CONCLUSIONS: Many of the radiosurgery patients did not have follow-up at our facility so we estimated them from surgery-related follow-up utilization. In addition, radiosurgery is a relatively new procedure and clinicians are not yet in agreement on a reasonable length of follow-up. Including other health care costs for these patients and accounting for longer follow-up length would likely increase the mean follow-up costs of radiosurgery further relative to microsurgery. This may make the total cost (the sum of initial and follow-up costs) of the two procedures more comparable.

PERIPHERAL ARTERIAL DISEASE IN DIABETIC PATIENTS: A COST-EFFECTIVENESS ANALYSIS COMPARING MAGNETIC RESONANCE ANGIOGRAPHY WITH DIGITAL SUBTRACTION ANGIOGRAPHY
Doyle J1, Stern L1, Wiederkehr D1, Eschmaier M1, Sweet A2
1Analytica International, New York, NY, USA; 2GE Health care, Buckinghamshire, UK
OBJECTIVES: A decision analytic model was created to compare the potential economic benefits (cost-offsets and cost-effectiveness) of treatment planning for peripheral arterial disease (PAD) with either digital subtraction angiography (DSA) and magnetic resonance angiography (MRA) technology in a diabetic population. METHODS: The model considered degree of stenosis, outcomes associated with a treatment plan, risk of complications from DSA and MRA, and associated costs of treatment. Sensitivity and specificity for DSA, considered the
“gold standard”, were set at 100%, while ranges for sensitivity and specificity for MRA were drawn from literature and used for sensitivity analysis. Analyses performed for a hypothetical population of 91,665 (US diabetics with PAD who are eligible for treatment in 2000) included: one-year total health care costs, total Quality Adjusted Life Year Gained (QALYG; the increase in quality of life after treatment), cost per QALYG, incremental cost per QALY, and cost of accurate and inaccurate planning with medical management, PTA, bypass, and amputation.

**RESULTS:** In the base-case scenario, with MRA sensitivity and specificity at 98% and 83% respectively, the one-year per patient total health care costs in the diabetic PAD population was $20,176 for patients receiving an MRA versus $21,996 for those receiving a DSA for treatment planning. The total QALYG were higher in the MRA cohort than in the DSA cohort, 0.11 versus 0.07 respectively. Therefore, the total cost per QALYG was $106,948 higher for patients who received a DSA ($190,697 vs. $297,645). MRA dominates the DSA in incremental cost/QALY with savings of $57,060, due to a lower risk of complication and the resultant greater increase in QALYG and lower cost of treatment. **CONCLUSION:** This model demonstrates that MRA as a treatment-planning tool, with lower risk of complication, could substantially reduce the cost and cost per quality-adjusted life years for peripheral arterial disease in diabetic patients.

**PCV19**

**COST COMPARISON OF DIFFERENT TREATMENTS FOR DEEP VEIN THROMBOSIS PROPHYLAXIS DURING ABDOMINAL SURGERY**

*Patel VA, McGhan WF*

University of the Sciences in Philadelphia, Philadelphia, PA, USA

**OBJECTIVES:** Nearly 600,000 patients are diagnosed with Deep Vein Thrombosis (DVT) in US every year. One in every 100 patient dies due to pulmonary embolism developed as a later complication. DVT during abdominal surgery is a frequent problem & therefore prophylaxis is a compulsion. The objective of this study was to identify the least costly prophylactic treatment taking into account DVT complications from the health care payer perspective. **METHODS:** Cost comparison was done using a decision tree. The probabilities and costs for postoperative DVT was obtained from clinical trial studies and other published sources. Prophylaxis during surgery was considered to be for 9 days whereas treatment for postoperative DVT was assumed to be for 5 days. Total cost included drug acquisition cost, hospitalization costs for DVT. Expected value was computed at each chance nodes. **RESULTS:** Fondaparinux sodium has the least probability (0.042) for postoperative DVT complications whereas Enoxaparin sodium & unfractionated heparin (UFH) have higher probabilities of 0.048 & 0.11 respectively. The drug acquisition cost for prophylaxis was highest with fondaparinux sodium (2.5 mg) at $36.69, enoxaparin sodium (40 mg) at $24.74 & UFH ($000 IU) at $3.06 per single dose. Low molecular weight heparins were given once daily while UFH was given twice daily. Expected value was found to be $1129.720, $1133.390 & $2256.730 for fondaparinux sodium, enoxaparin sodium & UFH respectively. Sensitivity Analysis showed that the model is somewhat influenced by adverse events & costs. **CONCLUSION:** Fondaparinux sodium has been found to have the least costly prophylactic treatment. Although the acquisition cost is the highest, it is offset by the low probability of developing DVT complications and later hospitalization costs. UFH even though having the lowest acquisition cost, has high rate of DVT complications & higher hospitalization cost due to frequent administration procedures & continuous monitoring requirement.

**PCV20**

**A COST-EFFECTIVENESS STUDY COMPARING IVABRADINE WITH STANDARD CARE IN STABLE ANGINA PECTORIS IN THE NETHERLANDS**

*Redekop WK, Nuijten MJ*

1Erasmus Medical Center, Rotterdam, The Netherlands, 2Erasmus University, Rotterdam, The Netherlands

**OBJECTIVES:** To compare the costs resulting from a treatment with ivabradine, a new medication for stable angina pectoris patients, with standard care for those patients who cannot be appropriately treated with standard medication in The Netherlands in 2006. **METHODS:** A decision analytic model was used to estimate the cost-effectiveness of ivabradine in patients with stable angina pectoris, who cannot be appropriately treated with standard medication and are therefore currently candidates for revascularisation (ESC guidelines 2006 on the management of stable angina pectoris). Therefore ivabradine is compared with standard care consisting of revascularization (CABG or PTCA). The study was performed within the society perspective, which included costs of medication and revascularisation procedures. The data sources included published literature, the ivabradine clinical trials, the Euro Heart Survey for stable angina, which provided data from daily practice, and official price/tariff lists and national population statistics. **RESULTS:** Treatment with ivabradine results in 77% reduction in revascularisation and leads to a cost saving of €7028 per patient compared with revascularisation during the first year of treatment. Sensitivity analyses showed that extrapolation beyond one year leads to further cost savings. Another sensitivity analysis on the probability of revascularisation showed that cost savings vary from €2882 to €9102. **CONCLUSION:** This model showed that the use of ivabradine compares favourably with revascularisation in treatment of stable angina pectoris in The Netherlands from a budgetary and health economic perspective: the total costs are substantially lower, whereas the effectiveness is at least similar. Consequently ivabradine can be considered a cost-effective treatment being dominant over standard care.

**PCV21**

**ECONOMIC EVALUATION OF EPLERENONE COMPARED WITH PLACEBO IN PATIENTS WITH MYOCARDIAL INFARCTION COMPLICATED BY LEFT VENTRICULAR SYSTOLIC DYSFUNCTION AND HEART FAILURE IN MEXICO**

*Mould-Quevedo J, Salomon-Molina A, Davila-Loaiza G*

Pfizer Mexico, Mexico City, Mexico

**OBJECTIVES:** In Mexico in 2005, there are more than 250,000 patients in secondary prevention. One of the most serious and frequent consequences of survivors of acute myocardial infarction (AMI) is heart failure, which is associated with a 55% greater risk of dying and 2.15-times-greater risk of death or recurrent AMI at 30 days. The purpose of this study was to estimate the cost-effectiveness of eplerenone compared with placebo from the Mexican health care payer’s perspective. **METHODS:** We used a three-year analysis model to estimate costs and effectiveness. Effectiveness measures were the number of life-year gained (LYG) and quality-adjusted life-years (QALYs). Effectiveness data was obtained from the Eplerenone Post-Acute Myocardial Infarction Heart Failure Efficacy and Survival Study (EPHESUS). Survival beyond the trial period (16 months) was estimated from data from the Framingham Heart Study. The estimation of resource use was performed employing local expert opinion surveys and they included hospitalization, emergency room visits, outpatient services and medication. Costs and life expectancy differences were discounted 5% annually. Threshold sensitivity analysis was performed and acceptability