Henriksson reported that surgery plus medical management can be considered cost effective as a treatment of asymptomatic carotid stenosis in 65 year-old men. He assumed a surgery relative risk reduction of 65.5%, or approximately an absolute risk reduction (ARR) of 8% in this population. However, data for the comparator arm (medical management alone) were dated and did not reflect efficacies of current medical therapies. **OBJECTIVES:** To analyze using Bayesian methods, asymptomatic carotid stenosis clinical trial data, and more current medical therapy data the probability of achieving this 8% ARR and an incremental cost per QALY of approximately $50,000 (US, inflated - 2013 dollars). **METHODS:** The outcome of interest from the clinical trials was the mean difference in the probability of any stroke or perioperative death between surgery (carotid endarterectomy [CEA]) and aggressive medical management (MM). The CEA data came from the Asymptomatic Carotid Atherosclerosis Study (ACAS) and the Asymptomatic Carotid Surgery Trial (ACST). The updated medical management data came from a systematic review published in the journal Stroke (Abbott, 2009). The Bayesian analysis employed a Beta-Binomial Model. **RESULTS:** The posterior distribution of the Bayesian analysis representing the ARR of CEA versus MM had a mean of 0.008 with an essentially zero probability of achieving the Henriksson assumption of 8% ARR. Using the mean of this posterior distribution, the resulting incremental cost per QALY exceeded $500,000 in 65 year-old men – a value unlikely to be considered cost effective in any country. **CONCLUSIONS:** Bayesian analysis allows the prediction of the probability that a treatment alternative exceeds a predefined threshold. A powerful feature of Bayesian analysis is the ability to incorporate additional and/or newer data. This newer data can drastically alter assumptions about the cost effectiveness of treatment alternatives.

PCV71

COST-EFFECTIVENESS OF TRANSCATHETER AORTIC-VALVE IMPLANTATION FOR SEVERE SYMPTOMATIC AORTIC STENOSIS IN INOPERABLE PATIENTS IN THE BRAZILIAN PRIVATE HEALTH CARE SYSTEM

Nishikawa AM[1], Paladini L[1], Queiroga M[2], Lemos P[2], Clark OAC[1]
[1]*Evidencias, Campinas, Brazil,* [2]*Sociedade Brasileira de Hemodinâmica e Cardiologia Intervencionista (SBHCI), São Paulo, Brazil*

OBJECTIVES: Aortic stenosis is the most common valvular heart disease in the elderly –its prevalence is estimated to be up to 5% in individuals over 75 years. Surgical replacement of aortic valve is considered the standard care and in the absence of serious coexisting conditions, the procedure is associated with low operative mortality. However, a significant proportion of patients cannot undergo surgery due to high surgical risk associated with advanced age or presence of multiple coexisting conditions. Treatment with transcatheter aortic-valve implantation (TAVI) is a therapy with potentially lower peri-procedure risk and has been used as a therapeutic option in this group considered inoperable. This study aims to develop a cost-effectiveness analysis of TAVI in patients with severe aortic stenosis who are not suitable for surgical treatment according to Brazilian Private System Perspective. **METHODS:** A Markov model was developed to compare TAVI *versus* standard therapy (drug treatment with or without aortic balloon valvuloplasty) with a 5-year time horizon. Outcomes in the model were based on safety and effectiveness (as measured by clinical outcomes of chance of successful implantation procedure and survival from PARTNER cohort B trial). Resource use included early perioperative complications (30 days) and late events. Cost data were obtained from Brazilian public lists (CMED/SIMPRO/CBHPM). Results were expressed as incremental cost-effectiveness ratio (ICER) per life years gained (LYG). Probabilistic sensitivity analysis was performed to confirm robustness of results. **RESULTS:** Compared with standard therapy with or without aortic balloon valvuloplasty, use of TAVI improves survival in 0.97 life years with an incremental cost of US$43,602, resulting an ICER of US$45,080/LYG. In an alternative scenario considering 10-year time horizon, ICER was 27,565/LYG. **CONCLUSIONS:** Use of TAVI results in improved survival with a low risk of serious adverse events, and demonstrates a cost-effectiveness profile when compared to other technologies already incorporated in Brazil.

PCV72

ECONOMIC EVALUATION OF IVABRADINE IN CHRONIC HEART FAILURE IN GREECE

Kourlaba G[1], Parissis J[2], Karavidas A[3], Beletsi A[4], Milonas C[5], Maniadakis N[6]
[1]*National and Kapodistrian University of Athens School of Medicine, Athens, Greece,* [2]*Attikon University Hospital, Athens, Greece,* [3]*Athens General Hospital, Athens, Greece,* [4]*SERVIER HELLAS Pharmaceuticals Ltd., Athens, Greece,* [5]*National School of Public Health, Athens, Athens, Greece,* [6]*National School of Public Health, Athens, Greece*

OBJECTIVES: In the SHIFT trial, ivabradine administered to chronic heart failure (CHF) patients in combination with standard therapy significantly reduced cardiovascular death and hospital admission for cardiovascular problems. An economic evaluation of ivabradine plus standard care against standard care alone, for the management CHF in patients with a baseline heart rate ≥75b.p.m. was conducted from the Greek third party-payer perspective. **METHODS:** An existing Markov model consisting of two health states for CHF NYHA classes I to IV (i.e. alive, dead) was adapted to the Greek health care setting. In each one month cycle, patients can either remain alive or die, during their life span or 29 months (i.e. within SHIFT trial period). Health state utilities were estimated from EQ-5D index scores obtained from the SHIFT clinical trial and using appropriate modeling techniques the data were extrapolated beyond the trial period. All costing data reflects the year 2013. Probabilistic sensitivity analyses (PSA) were conducted. Both cost and outcomes were discounted at 3.5% per year. **RESULTS:** Results for within trial analysis revealed that ivabradine had an incremental cost and incremental QALY of €905 and 0.05 respectively, leading to an incremental cost per QALY gained of €16,635/QALY. Ivabradine was a cost-effective alternative at a willingness to pay threshold of €36,000 per QALY gained Moreover, the cumulated lifetime analysis showed incremental cost of €2,792 and incremental QALY of 0.28. The ICER for ivabradine was calculated to be €9,986 per QALY gained. The PSA showed that the likelihood of ivabradine plus standard therapy being cost-effective at a threshold of €36,000/QALY was found to be 96% in both within trial and lifetime analysis. This result is driven by a reduction in mortality and hospitalisations and the associated costs of care. **CONCLUSIONS:** Ivabradine added to standard care could be a cost-effective treatment for the treatment in CHF patients in Greece.

PCV73

COST-EFFECTIVENESS ANALYSIS OF RIVAROXABAN IN SECONDARY PREVENTION OF ACS IN SWEDEN

Begum N[1], Van Hout B[1], Thurston S[1], Schoeman O[2], Fraschke A[3], Verheugt FWA[4]
[1]*Pharmerit Ltd., York, UK,* [2]*Bayer Pharma AG, Berlin, Germany,* [3]*Bayer AB, Solna, Sweden,* [4]*University Medical Center St. Radboud, Nijmegen, The Netherlands*

With 7 million deaths per year, ischaemic heart disease is the leading cause of mortality worldwide. In Acute Coronary Syndrome (ACS), the vast majority of fatal cardiovascular events occur after hospital discharge. Guidelines recommend antithrombotic treatment for secondary prevention after ACS. **OBJECTIVES:** To assess the cost-effectiveness of rivaroxaban 2.5mg BID in combination with standard antiplatelet therapy (ASA alone or in combination with a thienopyridine [clopidogrel or ticlopidine]) versus standard antiplatelet therapy alone for prevention of secondary events in ACS patients from a Swedish societal perspective. **METHODS:** A Markov model is used to capture single and multiple events, costs and utilities based on the time since index event to reflect clinical practice. For the first 2 years the model uses data from the ATLAS ACS 2-TIMI 51 clinical trial including efficacy, safety, treatment discontinuation and average patient age. After 2 years, transition probabilities were extrapolated using an exponential function method. Estimates for life expectancy, drug acquisition costs and other medical and indirect costs were derived from published Swedish sources. Cost and effects are discounted at 3.0%. Univariate and probabilistic sensitivity analyses were conducted with an assumed willingness to pay (WTP) threshold of SEK 500,000. **RESULTS:** For the base case scenario, incremental life time costs are estimated at SEK 10,000.44 (€1,156), incremental QALYs at 0.14, and incremental cost per QALY at SEK 71,245.76 (€8,236). Univariate sensitivity analyses indicate that the results are sensitive to changes in the cost of rivaroxaban and baseline utility value. At an assumed WTP of SEK 500,000, rivaroxaban in combination with standard antiplatelet therapy is expected to be cost-effective. **CONCLUSIONS:** From a Swedish societal perspective, secondary prevention with rivaroxaban 2.5mg BID in combination with standard antiplatelet therapy can be considered a cost-effective option for patients with ACS. Sensitivity analyses demonstrated that the results are robust.

PCV74

COST-EFFECTIVENESS ANALYSIS OF APIXABAN IN THE TREATMENT OF ATRIAL FIBRILLATION IN MEXICO

Galindo-Suárez RM[1], Davila-Veites A[2], Olguin-Sánchez JF[2], Haddad A[1], del Angel- Martínez J[2], Muciño-Ortega E[1]
[1]*Pfizer S.A. de C.V., Ciudad de México, Mexico,* [2]*Bristol-Myers Squibb Mexico, Mexico City, Mexico*

OBJECTIVES: The most common cardiac arrhythmia (atrial fibrillation, AF) increases the risk of morbidity and mortality. We estimated the health and economic consequences of the use of apixaban compared with warfarin reducing the risk of stroke in patients with AF, from the perspective of the Instituto Mexicano del Seguro Social (IMSS). **METHODS:** We performed a cost-effectiveness analysis using a Markov model (17 health states, six-week cycles), which simulates patients treated with warfarin (fixed dose: 5mg/day) or apixaban (10mg/day). Patients enter the model at age 70 and remain there until death (disease-related or according to Mexican life tables). Safety, efficacy and utilities were extracted from published sources. The costs of warfarin and AF-related clinical events were extracted from IMSS sources. The cost of apixaban was provided by the manufacturer. Costs are expressed in US$, 2013 and a 5% per-year discount rate was applied. Years of life and quality adjusted life years (QALYs) gained were the health outcomes. Univariate and probabilistic sensitivity analyzes were performed. **RESULTS:** The model estimated 7.645 life years and 5.454 QALYs in the apixaban arm, which means 0.147 and 0.160 gained life years and QALY's, respectively (regarding warfarin). The costs of apixaban and warfarin were US$14,943 and US$15,042, respectively (apixaban is a dominant alternative). Health gains with apixaban are driven by fewer event-related deaths (10/1000 patients at risk) as well as fewer hemorrhagic strokes (12) and bleeding (13 major bleeds, 41 clinically non-major bleeds) compared to warfarin-treated patients. Treatment costs are driven by drug acquisition cost (apixaban) and monitoring cost (warfarin). **CONCLUSIONS:** Apixaban is more effective and safer than warfarin reducing the risk of stroke associated with AF, as well as bleeding events. To achieve this improvement, no additional economic resources need to be invested, which makes apixaban a cost-saving intervention in the context of the IMSS.

PCV75

COST-EFFECTIVENESS OF APIXABAN VERSUS STANDARD OF CARE FOR THE PREVENTION OF STROKE: AN ANALYSIS OF PATIENTS WITH ATRIAL FIBRILLATION IN GREECE

Athanasakis K[1], Arzoumanidou D[1], Karampli E[1], Armelidou E[2], Giovas P[2], Petrikkou E[3], Kyriopoulos J[1]
[1]*National School of Public Health, Athens, Greece,* [2]*Pfizer Hellas, Athens, Greece,* [3]*BMS Hellas, Athens, Greece*

OBJECTIVES: Apixaban is an oral anticoagulant that has demonstrated a superior clinical profile compared to warfarin and aspirin in the management of patients with non-valvular Atrial Fibrilation (NVAF) and at least one additional risk factor for stroke. The objective of the present analysis was to assess the cost-effectiveness of apixaban against warfarin and aspirin for the prevention of stroke in patients with NVAF in Greece. **METHODS:** A Markov model that evaluated clinical events, quality adjusted life expectancy and costs for patients treated with apixaban and warfarin or aspirin (VKA-suitable and