Abstracts

COMMIT trials. METHODS: A combined decision tree and Markov model was constructed. Since existing evidence indicates similar long-term outcomes after STEMI and NSTEMI, data from the long-term NSTEMI CURE trial was combined with 1month data from CLARITY and COMMIT to model the effect of treatment up to one year. The risk of death, MI and stroke in an untreated population and long-term survival were derived from the Swedish hospital and death registers. The model was run separately for the two STEMI trials. A payer perspective was chosen for the main analysis, focusing on direct medical costs. Costs for Sweden, Germany and France were based on published sources and were converted to 2005 Euros. Effectiveness was measured as the number of life-years gained (LYG) from clopidogrel treatment. RESULTS: Using a patient cohort with the same characteristics and event rates as the CLARITY population, adding clopidogrel to aspirin treatment for up to one year resulted in 0.14 LYG. In Sweden and France, this strategy was dominant with estimated cost savings of €110 and €370, respectively. In Germany, clopidogrel treatment had an incremental cost-effectiveness ratio (ICER) of €120/LYG. Using data from the COMMIT study, clopidogrel treatment resulted in 0.19 LYG at an incremental cost of €530 in Sweden, €540 in France and €790 in Germany. The corresponding ICERs were €2760/LYG, €2760/LYG and €4130/LYG, respectively. CONCLUSIONS: Treatment of STEMI patients with clopidogrel for up to one year is cost-effective in all three European countries studied, with predicted ICERs well below generally accepted thresholds.

COST-EFFECTIVENESS MODEL TO EVALUATE MANAGED VENTRICULAR PACING (MVP) IMPLANTED IN A SPANISH AMBULATORY SURGERY PROGRAM

PCV33

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OBJECTIVE: Pacemaker implantation is an established approach to bradycardia due to sinoatrial node disease or atrioventricular block. A new kind of pacing system (managed ventricular pacing), has been developed recently to avoid unnecessary pacing in the right ventricle. The objective is to evaluate the long term clinical and economic consequences, associated with the use of Adapta pacemakers, (which allow for managed ventricular pacing) versus the standard dual chamber pacemakers (DDDR) in a Spanish Hospital (Valencia General Hospital), where pacemakers are implanted through ambulatory surgery. Costs and benefits were discounted at 3%. METHODS: A lifetime discrete event simulation model was adapted to the Spanish setting, simulating clinical evolution of bradycardia, after a pacemaker implantation. Pairs of identical patients are created, and one receives Adapta while the other a DDDR. Clinical and utility data were obtained from published trials (MOST, PASE) Distributions of ventricular pacing are based on data collected during trials of these devices. Cost data came from Valencia General Hospital costs database. Age and gender population data were obtained from the Spanish Registry of Pacemakers from the Spanish Society of Cardiology. RESULTS: Based on 100 replications of a hypothetical cohort, treating patients with Adapta versus dual chamber pacemakers results in mean a saving of €397 per patient. Adapta implantation is predicted to result in a 65.4% decrease in heart failure hospitalization, a 16.5% decrease in atrial fibrillation, and an 11% reduction in the number of strokes experienced. The model predicts an increase of 0.29 QALYs per patient treated with managed ventricular pacing; the Adapta device is dominant compared to DDDR. CONCLUSIONS: Based on these estimates use of MVP vs. dual chamber devices, in patients with bradycardia is an efficient strategy in the Spanish setting, providing better long-term clinical and economic outcomes.

PCV34

A COST-EFFECTIVENESS ANALYSIS OF OLMESARTAN IN THE TREATMENT OF ARTERIAL HYPERTENSION Lamotte M¹, Annemans L², Van Loy R³, Koch W⁴

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OBJECTIVES: Although the importance of hypertension as a risk factor for cardiovascular disease (CVD) is well know, blood pressure remains uncontrolled in a significant part of patients. The aim of this study was to assess the cost-effectiveness of adding olmesartan, a angiotensin-II-antagonist, to treatment in patients with uncontrolled hypertension. Belgium was used as a case country. METHODS: A Markov model with a 10-year time horizon using 6-month cycles was developed in MSExcel. Depending on age, smoking status, systolic blood pressure (SBP), and total cholesterol, fatal CVD risk (cardiac death, fatal stroke) was calculated using the SCORE equation for patients without a history of CVD and using the Framingham equation for patients with a history of CVD (18%). Non-fatal risk was indirectly calculated based on landmark primary prevention trials. Clinical data were obtained from the Belgian 12-week Olme-R3study (Olmetec Real-life Responder Rate-study) in which 4130 patients with uncontrolled hypertension were started on olmestartan (10, 20 or 40 mg at the physician's discretion-74% received 20 mg) assuming that effects are maintained over 10years. Direct costs from the Belgian payers' perspective were included. Official sources for cost of events and cost of drugs were used. The unit costs of olmesartan, 10, 20 and 40 mg are respectively €0.70, €0.50 and €0.63 (10 mg more expensive due to pack-size). Annual discounting of 3% was applied on cost and effects. RESULTS: At 12 weeks, adding olmesartan decreased SBP with 22.47 mmHg (95%CI 22.00-22.94 mmHg-baseline SBP 160 mmHg) and decreased the number of antihypertensive drugs needed. The cost of antihypertensive treatment increased from €0.54 to €0.73 (part olmesartan €0.53) per day. Applying the observed SBP effect to the 10-year model results in a incremental cost-effectiveness ratio of €9813/LYG (95%CI €9568/LYG-€10,073/LYG). CONCLUSIONS: Adding olmesartan to antihypertensive treatment in patients with uncontrolled hypertension seems cost-effective from the perspective of the health care payer.

PCV35

ESTIMATING LIFETIME COSTS AND LIFE EXPECTANCY ASSOCIATED WITH CARDIOVASCULAR DISEASE IN A SWISS POPULATION WITH AND WITHOUT METABOLIC SYNDROME Ray J¹, Darioli R², Roze S³, Azoulay M⁴, Bernhardt M⁴, Valentine WJ⁵ ¹IMS Health, Allschwil, Basel, Switzerland, ²Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland, ³CORE—Center for Outcomes Research, A Unit of IMS, Allschwil, Switzerland, ⁴sanofiaventis (suisse) sa, Meyrin, Geneva, Switzerland, ⁵CORE—Center for Outcomes Research, A Unit of IMS, Allschwil, Basel, Switzerland OBJECTIVES: Patients presenting a cluster of cardiometabolic risk factors (CMRF) are at increased risk of developing cardiovascular disease (CVD). One possible clustering is the metabolic syndrome (MS). We investigated the long-term outcomes associated with MS in a Swiss population. METHODS: A computer simulation model was developed to project life expectancy (LE)