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 1-month 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.

A COST-EFFECTIVENESS ANALYSIS OF OLMESARTAN IN THE TREATMENT OF ARTERIAL HYPERTENSION

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OBJECTIVES: Although the importance of hypertension as a risk factor for cardiovascular disease (CVD) is well known, 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-R3-study (Olmetec Real-life Responder Rate-study) in which 4130 patients with uncontrolled hypertension were started on olmesartan (10, 20 or 40 mg at the physician’s discretion-74% received 20 mg) assuming that effects are maintained over 10-years. 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 an 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.

ESTIMATING LIFETIME COSTS AND LIFE EXPECTANCY ASSOCIATED WITH CARDIOVASCULAR DISEASE IN A SWISS POPULATION WITH AND WITHOUT METABOLIC SYNDROME

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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)