ECONOMIC EVALUATION OF LOSARTAN COMPARED WITH ATENOLOL IN THE TREATMENT OF HYPERTENSION WITH LEFT VENTRICULAR HYPERTROPHY: COST-MINIMIZATION ANALYSIS BASED ON LIFE STUDY

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OBJECTIVE: The LIFE Study demonstrated a significant reduction in cardiovascular morbidity and mortality in hypertensive patients with ECG left ventricular hypertrophy treated with losartan (versus treatment with atenolol) over a mean period of 4.8 years. This reduction was essentially related to a significant 25% decrease (p = 0.001) in the risk of fatal and non-fatal stroke. The objective of this study was to compare the treatment costs relating to each therapeutic strategy throughout the duration of the LIFE Study. METHODS: Data on efficacy and resources consumed were extracted from the published results of the LIFE study. A cost minimization study was carried out and the costs were calculated from the point of view of the French Health care system. The total estimated direct costs included those relating to the medicinal product and management of the cardiovascular events (myocardial infarction, angina pectoris, heart failure, stroke and revascularization). The medicinal products were valued on the basis of the purchasing price (retail price inc. VAT), and hospitalization costs were estimated on the basis of PMSI data and the national cost scale. Indirect costs were not considered. RESULTS: Over the 4.8 years, the mean cost of losartan per patient ranged from €1132 (lower bound) to €1199 (upper bound). The mean cost of atenolol per patient was €366. The mean cost of the cardiovascular events were respectively €1969 and €2261 for losartan and atenolol groups. Therefore, the total mean cost per patient ranged from €3101 to €3169 for the losartan group and was estimated €2627 for the atenolol group. CONCLUSION: The annual incremental cost for each patient treated with losartan ranged from €99 to €113. This additional cost is associated with a significant reduction in cardiovascular morbidity and mortality (especially stroke).

INTRODUCTION OF ROSUVASTATIN WILL ENABLE MORE PATIENTS TO ACHIEVE GUIDELINE LDL-C GOALS WITHIN A FIXED BUDGET IN THE UK

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OBJECTIVES: Rosuvastatin (Crestor®) is a new statin with proven efficacy for reducing plasma low-density lipoprotein cholesterol (LDL-C) levels. A model has been developed to estimate the budget impact and incremental cost-effectiveness of rosuvastatin compared with other statins for reducing LDL-C levels and treating patients to goal. METHODS: The model considered the treatment of an adult population with hypercholesterolaemia over a 1-year period from the perspective of the UK primary Health care provider. The clinical benefit was a simulated estimate of the proportion of the population attaining the European Atherosclerosis Society (EAS) guideline goal LDL-C plasma level (<3mmol/L). The model compared the cost of statin treatment using current prescribing patterns with a scenario in which 30% of patients currently receiving statins are switched to rosuvastatin. Patients are switched from existing products according to market share. Sensitivity analyses varied the potential prescribing share of rosuvastatin. RESULTS: Following rosuvastatin introduction, the anticipated cost saving for a population of 1,000 patients would be £8,052 (€12,849) per year, with an additional 103 patients reaching the EAS goal LDL-C level. Assuming a fixed budget, the introduction of rosuvastatin would allow an additional 30 patients to be treated with rosuvastatin, with a total 132 extra patients achieving the goal. The analysis showed that rosuvastatin is cost-effective compared with atorvastatin, pravastatin and simvastatin. Sensitivity analyses showed that the results were robust to changes in the prescribing share of rosuvastatin. CONCLUSION: The introduction of rosuvastatin into primary care prescribing should enable more patients to be treated with a statin than is currently possible, and more patients would reach EAS goal LDL-C levels. Compared with other currently available statins, prescribing rosuvastatin would allow resources to be used more efficiently. The model can be adapted for any European country to determine the cost-effectiveness and potential budget impact of a new statin.

THE COST-EFFECTIVENESS OF EXTENDED VENOUS THROMBOEMBOLISM PROPHYLAXIS WITH ENOXAPARIN VERSUS SHORT-TERM PROPHYLAXIS AFTER ELECTIVE HIP REPLACEMENT IN POLAND

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OBJECTIVE: Evidence-based medicine guidelines based on venographic end points recommend extended venous thromboembolism (VTE) prophylaxis with low-molecular-weight heparin (LMWH) in patients having elective hip surgery. The aim of the study was to estimate the expected cost-effectiveness of such prophylaxis with enoxaparin administered for 21 days postdischarge vs. using enoxaparin for hospital admission only. METHODS: Decision analysis model was developed to
OBJECTIVES: To analyze and compare medium and long-term clinical and economic outcomes of fondaparinux and enoxaparin in the prevention of venous thromboembolism (VTE) after major orthopaedic surgery (MOS) in Spain. METHODS: A decision-analytic model was adapted to determine the incidence and cost consequences of VTE-related events (deep vein thrombosis—DVT, pulmonary embolism—PE, and post-thrombotic syndrome—PTS) and major bleedings due to their prophylaxis and treatment, in 2 hypothetic cohorts of 10,000 MOS patients each who had received either 8 injections of enoxaparin or 7 injections of fondaparinux. Clinical outcomes and their direct cost consequences for the National Health System were calculated for different time horizons (1 month, 3 months, 1 year, and 5 years after surgery). Clinical input data were retrieved from published clinical trials and epidemiological studies. Resource use in the prophylaxis and management of all events was determined by an international expert panel using the Delphi technique and was validated for Spain by a local VTE expert. Unit costs of the resources were extracted from local databases and were expressed in Euros of 2002. Costs were discounted at 3% per year. RESULTS: Five years after surgery mortality caused by PE was 46% less in the fondaparinux cohort, while mortality due to major bleedings following prophylaxis or treatment of VTE did not differ between cohorts. The accumulated number of cases of DVT, PE, and PTS were, respectively, 33%, 46%, and 26% less. Additional drug cost with fondaparinux amounted to €14,582 per life saved. From three months after surgery onwards the price differential was compensated by savings that resulted from the avoidance of VTE-related events. CONCLUSIONS: Prophylaxis with fondaparinux vs. enoxaparin considerably reduces the number of fatalities and other VTE-related events after MOS and leads to net savings for the National Health System in the medium and long term.

COST-EFFECTIVENESS ANALYSIS OF CLOPIDOGREL IN ACUTE CORONARY SYNDROMES WITHOUT ST-SEGMENT ELEVATION IN THE NETHERLANDS

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OBJECTIVES: The CURE study has demonstrated that clopidogrel on top of standard therapy (including aspirin, ASA) decreases the risk of cardiovascular death, myocardial infarction and stroke by 20% in patients with acute coronary syndromes without ST-elevation. The objective of this study was to evaluate the cost-effectiveness of adding clopidogrel to standard treatment in the Netherlands. METHODS: The cost-effectiveness, in terms of costs per saved life-year, was determined with a Markov model in which patients were divided according to vascular events and time from last event. Effectiveness data were derived from the CURE study; long-term outcomes were based on epidemiological estimates concerning age specific event rates and case fatality rates. Quality of life estimates were obtained from the literature. Direct costs were updated from previous studies, indirect costs were disregarded due to the age of the patients. RESULTS: The number needed to treat with clopidogrel for one year to prevent one event was 35. The annual cost of treatment was €20,355 in patients treated with clopidogrel on top of standard therapy (including ASA) and €20,342 in patients in the control group (standard therapy including ASA). After discounting costs and effects at 4%, treatment with clopidogrel resulted in annual cost saving of €17 per patient. There was also a gain in life-years and quality adjusted life years (QUALY’s) of 0.122 year and 17 per patient. There was also a gain in life-years and quality adjusted life years (QUALY’s) of 0.122 year and 17 per patient. There was also a gain in life-years and quality adjusted life years (QUALY’s) of 0.122 year and 17 per patient. There was also a gain in life-years and quality adjusted life years (QUALY’s) of 0.122 year and 17 per patient. CONCLUSIONS: Clopidogrel is highly cost-effective when added to stan-