COST-EFFECTIVENESS ANALYSIS OF THE USE OF ACETYLSALICYLIC ACID COMPARED TO CLOPIDOGREL IN THE SECONDARY PREVENTION OF PATIENTS WITH PREVIOUS MYOCARDIAL INFARCTION

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OBJECTIVES: To perform an economic evaluation of the use of low dose acetylsalicylic acid (Adiro) in comparison with clopidogrel (Plavix) in the prevention of cardiovascular events in patients with a previous myocardial infarction (MI) using a cost-effectiveness analysis in the setting of the Spanish National Health Service. METHODS: Using the efficacy data from the CAPRIE study on the incidence of new cardiovascular events in a group of patients with a previous MI, the sanitary and economic consequences of the use of the two treatments, acetylsalicylic acid and clopidogrel, in this indication were modeled. The costs used in this analysis refer to the year 2004 in the Spanish National Health Service setting. RESULTS: In the base case, the total cost of the acetylsalicylic acid treatment (€1515) was considerably inferior to that of clopidogrel (€2942). The efficacy results in the subgroup of patients with a previous MI, are comparatively better with acetylsalicylic acid, however the difference is not statistically significant. With the assumptions adopted in the base case, treatment with acetylsalicylic acid is superior (better or equal efficacy and less cost) when compared to treatment with clopidogrel. The treatment with acetylsalicylic acid was found to be superior to that of clopidogrel in all of the scenarios studied in the analysis of sensitivity. CONCLUSIONS: The treatment with acetylsalicylic acid is effective, safe and cost-effective in the secondary prevention of cardiovascular events in patients with a previous MI, and is still the first choice antiplatelet therapy for this indication.
with low-risk myocardial infarction. METHODS: The participants in this 12-month prospective study were 153 consecutive patients with low-risk myocardial infarction (MI) referred to their primary care center for follow-up care. Of these patients, 113 were referred to a mixed primary and specialized care program that included physical exercise, cardiovascular risk control, an antismoking program, health education talks and psychological evaluation. The other 40 patients served as controls. We analyzed the results after three months and 1 year of follow-up. RESULTS: There were no differences between the two groups at baseline. After 1 year, improvements were seen in smoking habit (4.6% vs. 15.6%; P < 0.05) and body mass index (26.2 vs. 29 [2]; P < 0.05). Dyslipidemia, glucose and blood pressure were similar in both groups after follow-up. Greater improvements in the group of patients who participated in the program were seen after 1 year in quality of life (78 [2] vs. 91 [2]; P < 0.05), exercise capacity (10.3 [2] vs. 8.4 [3]; P < 0.01) and return to active employment (84.6% vs. 53.3%; P < 0.05).

CONCLUSIONS: After one year of follow-up, the cardiac rehabilitation program coordinated by cardiological and primary care services for low-risk post-MI patients improved quality of life, and increased exercise tolerance, active employment, and the number of participants who quit smoking. The mixed program also reduced body mass index. These results suggest the need for similar programs.

COST ESTIMATION IN PATIENTS WITH AN AHEROTROMBOTIC EVENT

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OBJECTIVE: To estimate the direct medical costs in patients at high risk that suffered an atherotrombotic event (AE), i.e., the cost of the acute event and the costs related to the disease during a two year follow-up period in patients with myocardial infarction and stroke, treated in third care level in private institutions in the Mexican Health System. METHODS: This is a descriptive observational and multicentric study. Each patient included in the study cohort has an active medical file with a complete record for at least a 2-year period after the AE. This study is based on an incidence costing approach and only includes the perspective of the payments. The unitary costs used are those officially published by private institutions. All the amounts are set in 2005 Mexican pesos. The 2005 exchange rate is 11 Mexican pesos per US dollar. RESULTS: A patient who experiences a stroke stays at least 5 days in Intensive Care. The expected cost per treated patient with stroke reaches US$7876. The most important cost during the acute phase is hospitalization (US$3924; 50%). On the other hand, the total direct cost incurred per patient with acute coronary syndrome (ACS) is US$3367 per year of follow-up and US$16,381 in the acute event. The most relevant costs are both pharmacy costs (US$2354) and revascularization procedures (US$9319). Coronary artery stent implantation is the most common revascularization procedure (70%). CONCLUSIONS: AE are associated with high costs during the years after the acute event, in special high incidence of hospitalization and drug cost. These results, especially the proportions between cost items, are consistent with international studies. Effective prevention and treatment of AE should be targeted not only on patients and medical professionals but also on health decision makers.

PCV80

DISCRETE EVENT SIMULATION OF LONG-TERM HEALTH BENEFITS AND COST-EFFECTIVENESS OF IMPLANTING DUAL CHAMBER VS. SINGLE CHAMBER VENTRICULAR PACEMAKERS IN ITALY

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OBJECTIVE: To estimate the long-term economic and health impact of managing bradycardia due to sinoatrial node disease or atrioventricular block with a dual (DDD or DDDR) vs. single chamber ventricular pacemaker (VVI or VVIR). METHODS: A discrete event simulation was constructed to evaluate the outcomes over five years. During the simulation, each patient may develop post-operative complications, severe pacemaker syndrome leading to replacement of the VVI(R) with DDD(R), atrial fibrillation (which may become chronic and require anticoagulants), or have a stroke. A time for each event is sampled from the distribution of failure times specified by the individual’s risk profile. Life expectancy was estimated and assumed the same with either device. Model risk functions are based on long-term randomized trials (Canadian Trial of Physiological Pacing and Mode Selection Trial in Sinus-Node Dysfunction). Probabilistic sensitivity analyses were performed for key input parameters. Direct medical costs are reported in 2004 Euros (€). Benefits and costs are discounted at 3% per year. RESULTS: Chronic atrial fibrillation was estimated to be 24% lower with DDD(R). Discounted costs over 5 years were about €10,000 per patient in either cohort, mean net additional cost of €106 with DDD(R). DDD(R) led to 0.09 additional QALY; a mean cost-effectiveness ratio of €1177 QALY, with 21% of replications indicating dominance for DDD(R). Severe pacemaker syndrome requiring switch to DDD(R) occurred in 16.8% with VVI(R); the results are sensitive to the proportion that would seek replacement. CONCLUSION: Lower initial costs with VVI(R) were offset by second operations to switch to DDD(R) and costs of atrial fibrillation. Thus, dual chamber pacemakers are economically attractive in management of patients with bradycardia.

PCV82

COST-UTILITY OF CILOSTAZOL FOR THE TREATMENT OF INTERMITTENT CLAUDICATION IN SCOTLAND

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OBJECTIVE: To evaluate short-term cost-effectiveness (cost-utility) of cilostazol for the treatment of intermittent claudication from the perspective of the Scottish NHS. METHODS: A decision analytic model was constructed and analysed from the perspective of the Scottish NHS. Costs include direct medical costs including drug costs -evaluated at retail prices excluding taxes, and treatment costs. Treatment costs included the cost of primary and specialist care of intermittent claudication patients based on an independent survey of expert clinical opinion in Scotland. Short-term effectiveness was based on two published 24 week randomised clinically controlled trials of cilostazol (100 mg) versus placebo. Placebo was chosen as the comparator since the majority of patients in Scotland do not currently receive intermittent claudication- specific medical treatment. Health-related quality of life was measured in the trials using the SF-36; these scores were translated into utilities using a validated mapping algorithm. QALYs were estimated over various scenarios including the base-case analysis of the most conservative assumption of immediate return to placebo utility post treatment. RESULTS: The incremental cost-utility ratio for cilostazol over placebo was estimated at approximately £12,500 per QALY. The data were not discounted due to the short time