ECONOMIC ASSESSMENT OF EZETIMIBE CO-ADMINISTRATION IN A HUNGARIAN CHD PATIENT COHORT NOT AT CHOLESTEROL GOAL ON SIMVASTATIN MONOTHERAPY

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OBJECTIVE: To assess cost-effectiveness of ezetimibe 10mg (EZ10) co-administration with simvastatin versus a simvastatin dose titration strategy in CHD patients who do not attain cholesterol goal (TC < 5 mmol/L) with simvastatin monotherapy.

METHODS: A decision-analytic model was developed to project lifetime costs and benefits of lipid therapy. Clinical trial data were used to estimate TC reductions for different treatment strategies. The effect of TC reductions on CHD event rates was estimated using Framingham equations and Hungarian National Statistics data on nonCHD-related mortality. Direct costs of CHD events in Hungary, Hungarian prices for simvastatin and ezetimibe, and Hungarian National Health Insurance costs and effects were discounted at 3% annually and sensitivity analyses were performed. The model analyzed the outcomes and resource utilization of a hypothetical cohort of 10,000 patients with structural heart disease and implantable cardioverter-defibrillators who experience frequent VT episodes.

RESULTS: Ablation consistently produced greater quality-adjusted life years (QALYs) compared to amiodarone in analyses of 1 to 5 years. The incremental QALYs of ablation relative to amiodarone at 1, 2 and 3 years are 0.477, 0.82 and 1.05. The average 1, 2, and 3-year costs for ablation ($14,000, $14,760, $15,330) are higher compared to amiodarone ($10,760, $12,870, $14,760). However, over a 5-year time horizon, the average cost of ablation is less than amiodarone. The incremental cost-effectiveness ratio of ablation relative to amiodarone decreases from $81,340 at 1 year to $6392 at 3 years. By 3.6 years, ablation dominates amiodarone. CONCLUSIONS: Catheter ablation treatment of VT becomes increasingly cost effective compared to drug therapy as the time horizon increases and after 3.6 years, ablation is less costly and more effective than amiodarone therapy.

AN ECONOMIC ANALYSIS OF CATHETER ABLATION FOR THE TREATMENT OF VENTRICULAR TACHycardIA

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OBJECTIVES: Numerous clinical studies have demonstrated the safety and effectiveness of radiofrequency catheter ablation for treatment of ventricular tachycardia (VT). The objective was to evaluate the cost effectiveness of catheter ablation relative to drug therapy to treat frequent recurrence of VT among patients with structural heart disease. METHODS: We calculated the incremental cost effectiveness of catheter ablation relative to daily amiodarone treatment over various time horizons up to 5 years using a decision analytic Markov model (DATA 4.0TM, TreeAge Software Inc.). Costs were based on a third party payer’s perspective using 2004 Medicare reimbursement schedules and discounted average wholesale drug prices. Model parameters, adverse event rates, and utility weight estimates were obtained from randomized clinical trial literature and expert opinion. Costs and effects were discounted at 3% annually and sensitivity analyses were performed. The model analyzed the outcomes and resource utilization of a hypothetical cohort of 10,000 patients with structural heart disease and implantable cardioverter-defibrillators who experience frequent VT episodes.

RESULTS: Ablation consistently produced greater quality-adjusted life years (QALYs) compared to amiodarone in analyses of 1 to 5 years. The incremental QALYs of ablation relative to amiodarone at 1, 2 and 3 years are 0.477, 0.82 and 1.05. The average 1, 2, and 3-year costs for ablation ($14,000, $14,760, $15,330) are higher compared to amiodarone ($10,760, $12,870, $14,760). However, over a 5-year time horizon, the average cost of ablation is less than amiodarone. The incremental cost-effectiveness ratio of ablation relative to amiodarone decreases from $81,340 at 1 year to $6392 at 3 years. By 3.6 years, ablation dominates amiodarone. CONCLUSIONS: Catheter ablation treatment of VT becomes increasingly cost effective compared to drug therapy as the time horizon increases and after 3.6 years, ablation is less costly and more effective than amiodarone therapy.