Abstracts

PDB24

COST-EFFECTIVENESS OF ROUX-EN-Y GASTRIC BYPASS IN TYPE 2 DIABETES PATIENTS IN CANADA

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OBJECTIVES: Our objective was to estimate the cost-effectiveness of Roux-en-Y Gastric Bypass (RYGB) for treating obese patients with type 2 diabetes mellitus (T2DM) in Canada compared with standard medical management using clinical data from a prospective observational study conducted as an academic medical centre in the United States. METHODS: Our study used the CORE Diabetes Model which employs Monte Carlo simulation with tracker variables to estimate the lifetime costs and clinical outcomes of RYGB as a treatment for obese patients with T2DM compared with standard medical management. Costs and QALYs were discounted at 5% consistent with Canadian-specific guidelines. RESULTS: The base-case analysis showed that RYGB improved life expectancy and quality-adjusted life years (QALYs) compared with medical management of obese patients with T2DM. Our results were robust to doubling the price of RYGB compared with medical management of T2DM in Canada.

CONCLUSIONS: The results of our study suggest that RYGB is cost saving in Canada compared with standard medical management of obese patients with T2DM. Our results were robust to doubling the price of RYGB compared with medical management cost of T2DM in Canada.

PDB25

THE ECONOMIC IMPACT OF WEIGHT LOSS FOR PATIENTS WITH NEWLY DIAGNOSED TYPE 2 DIABETES MELLITUS (T2DM) IN THE US

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OBJECTIVES: To examine the cost effectiveness and outcomes of weight loss intervention for patients with newly diagnosed T2DM. METHODS: We simulated a cohort of 100 patients with T2DM (mean age 55 years) over 10 years using the Economic Cost-Effectiveness Model of T2DM (ECHO)-T2DM model, which captures the development of micro- and macrovascular diabetic complications. All patients were assumed to increase weight over time (0.51 pounds per year), however, half of the patients were assumed to lose 10 pounds in the first year all groups significantly increased total average expenditure (Group 1: 259%; Group 2: 39%; Group 3: 59%; Group 4: 61%). The costs then progressively decreased in all groups and at the third year the total average expenditure was AR$ 1,511 (72% drug, 26% practices and 2% consultations). No significant differences between all the intervention groups were found. After the first year all groups significantly increased total average expenditure (Group 1: 259%; Group 2: 39%; Group 3: 59%; Group 4: 61%). The costs then progressively decreased in all groups and at the third year the total average expenditure was AR$1,511 (72% drug, 26% practices and 2% consultations). No significant differences between all the intervention groups were found. Cost: In the period before the intervention the total average expenditure for each patient was AR$1,848 (66% drugs, 26% practices and 8% consultations). At year 3, the total average expenditure was AR$ 1,511 (72% drug, 26% practices and 2% consultations). Objectives: To evaluate the cost-effectiveness of somatostatin analogues in the treatment of acromegaly in Colombia. METHODS: Cost-effectiveness of both somatostatin analogues, octreotide and lanreotide, was estimated using decision analysis. RESULTS: The model’s effectiveness outcome is patients who are successfully controlled in terms of their growth hormone (<2.5 mg). Our model uses a hypothetical cohort of 2,500 subjects with acromegaly with an average age of 50 years was included in the model. The total annual medical treatment costs for the octreotide group were COP$162,802 million, compared to the total annual costs for the lanreotide group of COP$124,047 million. In the octreotide arm 63.5% of the patients and in the lanreotide arm 59.5% of the patients were successfully controlled. The estimated number of deaths was 174 and 169 for the groups with octreotide and lanreotide, respectively. Because the costs are lower and the effectiveness is higher for octreotide in comparison with lanreotide, octreotide is more cost-effective (dominant). Probabilistic sensitivity analyses were consistent showing octreotide as the most cost-effective option. CONCLUSIONS: Costs and effects of octreotide compare favorably to those of lanreotide in the treatment of acromegaly in Colombia. Sensitivity analysis showed that despite the uncertainty in cost-effectiveness ratio this result is robust.