COST STUDIES

CS1
TEGASEROD IS COST-EFFECTIVE IN THE TREATMENT OF PATIENTS WITH IBS: AN ECONOMIC ANALYSIS OF THE TENOR (TEGASEROD IN NORDIC COUNTRIES) STUDY
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OBJECTIVES: Irritable bowel syndrome (IBS) is a chronic and symptomatic gastrointestinal disorder characterized by abdominal pain/discomfort, bloating and altered bowel habit. Tegaserod, a 5-HT4 receptor antagonist, is effective, safe, and well-tolerated in the treatment of patients with irritable bowel syndrome (IBS) with constipation. Due to increasing pressure on health care budgets, it has become important to investigate not only the clinical safety and efficacy of new treatments, but also their cost-effectiveness (C/E). The aim of this study was to assess, from a payor perspective, whether tegaserod would be C/E in the treatment of IBS patients, excluding those with IBS with diarrhea.

METHODS: Female and male subjects were randomized to receive tegaserod 6 mg b.i.d or placebo for 12 weeks. Patients (247 tegaserod; 238 placebo) filled out the EuroQol (EQ-5D) at baseline, Week 4, and Week 12. A 12-week economic study was undertaken to assess the incremental cost-effectiveness (ICER) of tegaserod. Costs and benefits were bootstrapped to obtain 95% confidence intervals of the ICER. C/E acceptability curves were calculated using a range of daily costs of tegaserod, and the probability of treatment being C/E was assessed at threshold willingness to pay of 50,000€ per quality-adjusted life-year (QALY).

RESULTS: The utility gained between tegaserod and placebo calculated as the difference between the areas under the curve was 0.0077 over 12 weeks in favor of tegaserod. Assuming a daily tegaserod cost of 2€, 3€ and 4€ and 0€ for placebo, the median ICER of tegaserod ranged between 19,000€ and 38,000€ per QALY gained, with the probability of being C/E at threshold of 50,000€ per QALY ranging from 90% to 69%.

CONCLUSIONS: This study established from a randomized controlled clinical trial that tegaserod is C/E in the treatment of patients with non-diarrhea IBS.

CS2
COST-EFFECTIVENESS OF COMPETING ANTIHYPOTHYMIC MONOTHERAPIES IN ACUTE BIPOLAR MANIA IN THE U.K.
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OBJECTIVES: UK guidelines for managing acute mania call for initiation of treatment with mood stabilizer or antipsychotic monotherapy. Although atypical antipsychotics are better tolerated and may provide more rapid symptom resolution than conventional antipsychotics, conventional antipsychotics are widely used in practice due to lower acquisition costs. The objective of this study was to assess the cost-effectiveness of atypical antipsychotics in acute mania.

METHODS: We developed a state-transition Markov model to estimate the cost-effectiveness of antipsychotic monotherapy in patients hospitalized for a new episode of acute mania. A hypothetical cohort of 1000 patients was assumed to receive initial therapy with: haloperidol 15 mg/day, olanzapine 15 mg/day, or risperidone 4 mg/day. Over subsequent 3-week cycles, patients may remain manic, become depressed, die from suicide or other causes, or stabilize. The model tracks patients’ state transitions over 24 weeks and tabulates cumulative lifetime costs. Transition probabilities and cost estimates were derived from published literature. The NHS perspective was applied; therefore only direct medical costs (for drugs, hospitalization, etc.) were considered. Expected costs, expected number of treatment responders, and incremental cost per responder were estimated; response was defined as stabilization within the first 3-week treatment cycle. The model’s robustness to base-case assumptions was assessed using multivariate sensitivity analysis.

RESULTS: Risperidone monotherapy was the least costly (£17,260,500) and olanzapine monotherapy the most costly (£17,535,300) treatment strategy. Consistent with drug efficacies reported in the clinical trials, risperidone monotherapy provided the most responders per 1000 patients (537) and haloperidol monotherapy the fewest (460). In case-base analyses, risperidone dominated both haloperidol and olanzapine by being both less costly and more effective; however, this outcome was sensitive to assumptions regarding drug efficacy.

CONCLUSIONS: Based on current evidence, risperidone monotherapy dominates both olanzapine and haloperidol monotherapy by being both less costly and more effective in the treatment of acute mania.

CS3
IBRESARTAN IS PROJECTED TO BE COST AND LIFE SAVING COMPARED TO STANDARD BLOOD PRESSURE CONTROL ALONE FOR TREATMENT OF PATIENTS WITH TYPE 2 DIABETES, HYPERTENSION, AND MICROALBUMINURIA IN SPANISH, SWEDISH AND SWISS SETTINGS
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OBJECTIVES: To project the cumulative incidence (CI) of end-stage renal disease (ESRD), life expectancy (LE) and costs of treating patients with diabetes, hypertension, and microalbuminuria with either standard hypertension treatment alone (control) or standard hypertension treatment plus irbesartan 300 mg daily in Spanish, Swedish, and Swiss settings.

METHODS: A peer-reviewed, published Markov/Monte Carlo model simulated progression from microalbuminuria to nephropathy, doubling of serum creatinine, ESRD, and all-cause mortality in patients with hypertension, type 2 diabetes and microalbuminuria. To adapt the model to Spanish, Swedish and Swiss settings, costs of dialysis and renal transplantation were the major cost drivers. The advantages associated with irbesartan over standard care was robust under a wide range of plausible assumptions.

RESULTS: When compared to standard blood pressure control, irbesartan was projected to reduce the CI of ESRD from (mean ± standard deviation) 24 ± 1% to 9 ± 2%, save 11,082 ± 2986€, 31,000 ± 1% to 9 ± 2%, SEK 124,018 ± 31,000 and CHF 18,057 ± 4646 in the Spanish, Swedish and Swiss settings respectively, and add 1.40 ± 0.27, 1.49 ± 0.27 and 1.41 ± 0.28 life years per treated patient in the Spanish, Swedish and Swiss settings respectively. Costs of dialysis and renal transplantation were the major cost drivers. The advantages associated with irbesartan over standard care was robust under a wide range of plausible assumptions.

CONCLUSIONS: Treating patients with hypertension, microalbuminuria and type 2 diabetes with irbesartan was projected to reduce the incidence of ESRD, extend life and reduce costs in all 3 countries analysed.