Solifenacin in the treatment of Italian overactive bladder syndrome patients: pharmacoeconomic evaluation

Objective

The aim of the present work is the pharmacoeconomic evaluation of solifenacin in Italian OAB patients, conducted by means of cost-effectiveness, cost-utility, and budget impact analyses.

Methods

The evaluation has been conducted by creating a single two-state Markov model. The two mutually exclusive states define the possible health states for patients in the cohort: OAB without urinary incontinence (OIN), or with urinary incontinence (UI).

The analysis was conducted over a 52 weeks time horizon, with one week cycles. The severity of the illness for every state and for every instant of the simulation is described by two main indices of disease control:

- **Incontinence episodes** - number of episodes of incontinence
- **Use of pads** - use frequency for incontinence

The model does not consider the mortality of the simulated cohort because this pathology apparently doesn’t influence survival, and the possibility of a complementary scenario (responders) has been developed to represent the efficacy on the subgroup of OAB patients who meet a specific diagnostic criteria.

The base-case considers the outcomes of the General OAB patient population. A complementary scenario (responders) has been developed to represent the efficacy on the subgroup of OAB patients who meet specific diagnostic criteria.

Computation of QALYs (Quality Adjusted Life Years) for the cost-utility analysis was based on utility weights originally defined by Kobelt and colleagues in a model of 1998 and since then used in every main cost-utility model

Results

The number of patients freed from incontinence symptoms is the main effectiveness measure, whereas utility is quantified as mean QALYs increase per patient. Incremental cost-effectiveness ratios and incremental cost-utility were calculated versus both placebo and tolterodine.

As expected, the drug-based strategies are more effective but also more expensive than placebo or the use of pads. These results were partially compensated by other costs savings generally.

As declared above, we included in this analysis the NHS perspective to explore the impact of an hypothetic policy of reimbursement of anti-cholinergic drugs. We supposed a restricted form of reimbursement for the drug, only to incontinent and responding OAB patients, excluding all patients for whom the solifenacin doesn’t result satisfactory. In addition, a 30% discount was applied to the public price of these drugs.

On the basis of these settings, the model estimates that a pharmacological intervention with solifenacin on all Italian incontinent OAB patients seeking medical care can free more than 150,000 patients from incontinence, if compared with no treatment, with a cost of NHS for about 335 million of Euros. This result is a very favorable cost-utility ratio, ranging between 600 and 2,300 Euro/QALY.

Conclusions

Currently, in Italy, OAB syndrome is mainly managed with the use of incontinence devices instead of pharmacological therapy. This therapeutic attitude, induced by historical-cultural reasons and contextual difficulties (firstly, the coverage of devices versus the non-coverage of drugs), is sub-optimals in terms of acceptability, quality of life impact, and general well-being.

The pharmacoeconomic analysis we present indicate that the use of pharmacological treatments for OAB syndrome can be expected to associated with significant clinical and quality of life improvements, at a relatively modest increase of health care costs.

In conclusion, we believe that pharmacoeconomic evaluation of OAB syndrome is capable of improving patient quality of life at an acceptable cost, and that it should be proposed to all patients referring to health professional seeking a solution to their condition.

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