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OXYBUTYNIN EXTENDED RELEASE VS. TOLTERODINE IMMEDIATE RELEASE FOR OVERACTIVE BLADDER IN THE UK: ECONOMIC ANALYSIS

Aims of Study

A new extended release (XL) formulation of oxybutynin is now available in the United Kingdom for the treatment of overactive bladder (OAB). This pharmacoeconomic analysis addresses its cost-effectiveness relative to tolterodine immediate release (IR), currently the most frequently prescribed treatment for patients with OAB in the UK.

Methods

A state-transition model was developed to compare outcomes over the course of one year. Effectiveness and treatment persistence data were derived from OBJECT, a 3-month randomized, double-blind clinical trial comparing oxybutynin XL 10mg qd with tolterodine IR 2mg bid (Appell EA. Prospective randomized controlled trial of extended-release oxybutynin chloride and tolterodine tartrate in the treatment of overactive bladder: results of the OBJECT study. Mayo Clin Proc 2001;76:358-363). In this trial, it was shown that oxybutynin XL was more effective than tolterodine IR, as measured by end-of-study urge incontinence, total incontinence and micturition frequency episodes, with similar rates of dry mouth and other adverse events. These data were used, together with information from the literature, to project outcomes beyond the trial time. Severity-specific cost profiles for incontinence were developed for the UK, and are reported in 2002 UK pounds. Costs included pharmaceuticals, doctor visits, and pad or protection usage. Daily treatment costs were set at NHS price levels (oxybutynin XL £0.82, tolterodine IR £1.04).

Results

After one year, 3.1 more patients per 100 patients treated attained complete continence, defined as not having any incontinence episodes during the last week of the one year modeling period (20.4% versus 17.2%) when on oxybutynin XL compared with tolterodine IR. Results also demonstrated that 5.6 more patients experienced fewer than 7 incontinence episodes per week (54.3% versus 48.7%). Patients on oxybutynin XL also have almost 17 additional incontinence free days (162.5 versus 146.0) and 95 fewer incontinence episodes over the course of the year (584.6 versus 679.8). Total treatment costs are expected to be £86 lower per patient with oxybutynin XL. If both oxybutynin XL and tolterodine IR are priced equivalently, then savings fall to £21 per patient. For other inputs, oxybutynin XL maintains its advantage over wide ranges, and outcomes are similar if analyses are limited to only 3 months, the duration of the OBJECT trial.

Conclusions

These analyses, based on clinical trial data, suggest that oxybutynin XL provides better results than tolterodine IR over 1 year. Moreover, even if both drugs were to be priced equally, treatment with oxybutynin XL versus tolterodine IR would reduce costs.