ECONOMIC IMPACT OF EXTENDED-RELEASE TOLTERODINE VERSUS IMMEDIATE- AND EXTENDED-RELEASE OXYBUTYNIN AMONG COMMERCIALY-INSURED PERSONS WITH OVERACTIVE BLADDER

Ollendorf D1, Jumadilova Z2, Varadarajan S1, Girase P1
1PharMetrics, Inc, Watertown, MA, USA; 2Pfizer, Inc, New York, NY, USA

OBJECTIVES: To examine the economic impact of extended-release tolterodine (TOL-ER) versus immediate-release (IR) or extended-release (ER) oxybutynin (OXY) in patients with overactive bladder (OAB). METHODS: This retrospective cohort study used the PharMetrics Patient-Centric Database to identify patients diagnosed with OAB who newly started therapy with TOL-ER, OXY-IR, or OXY-ER between January 2001 and December 2002. 12-month pretreatment and follow-up periods were established from the first prescription date. TOL-ER patients were matched to OXY-IR and OXY-ER patients based on an estimated propensity score for TOL-ER therapy (i.e., probability of TOL-ER use based on multiple logistic regression). Use of OAB pharmaceuticals and related medications; use of outpatient and inpatient services related to OAB, infection, depression, and other conditions; and all corresponding costs were compiled for 1 year. Costs were compared using Wilcoxon rank-sum tests, and total health care costs were validated in a multivariate context using a generalized linear model. RESULTS: A total of 7257 TOL-ER/OXY-ER (80% female) and 5936 TOL-ER/OXY-IR (72% female) matched pairs were created (mean age, 54 y). Because of matching, demographic and clinical characteristics between cohorts were not significantly different. Costs for services related to OAB, infection, and depression were significantly lower for TOL-ER vs. OXY-ER. Total health care costs were also significantly reduced for TOL-ER (mean [SD], $8303 [$18,802]) vs. OXY-ER ($8862 [$18,864], p = 0.0109). Medication costs were significantly higher for TOL-ER ($2791 [$4997]) than for OXY-IR ($2204 [$3944], p < 0.0001). However, this increase was offset by reductions in expenses related to conditions including infection and depression. Total costs did not differ significantly between TOL-ER and OXY-IR. After adjustment for between-group differences, costs were significantly reduced for TOL-ER patients versus OXY-IR and OXY-ER (p < 0.01). CONCLUSION: Patients with OAB initiating therapy with TOL-ER incurred lower annual health care costs, including nonpharmaceutical costs related to OAB, infection, and depression compared with those receiving OXY-IR or OXY-ER.

DELIVERING TREATMENT EFFECTIVENESS: COSTS AND PERSISTENCE OF TOLTERODINE IN THE MANAGEMENT OF OAB IN FIVE EUROPEAN COUNTRIES

Reeves P1, Kopp Z2, Resch A1, Milsom I1, Kelleher C1, Arbibani W4
1Pharmacy Consulting Ltd, London, UK; 2Pfizer, Inc, New York, NY, USA; 3Pfizer Pharma GmbH, Karlsruhe, Germany; 4Sahlgrenska University Hospital, Goteborg, Sweden; 5Guy’s & St Thomas’ NHS Trust, London, UK; 6Monoblocco Ospedaliero, Padova, Italy

OBJECTIVES: Overactive bladder (OAB) is associated with both an economic and quality of life burden. Current management involves antimuscarinic agents. Extended release formulations are expected to improve treatment compliance and persistence. This study explored persistence and impact on OAB related co-morbidities with two therapies: tolterodine extended release (TER) and oxybutynin immediate release (OIR) compared to no active drug treatment (NONE) and associated costs across five European countries. METHODS: A decision-analytic model estimated costs and outcomes associated with treatment. A large case-controlled study was used to estimate the percentage of patients achieving persistent control, defined as patients still on therapy after six months. Resource use included drug costs, physician visits, incontinence pads and the cost of urinary tract and skin infections. The model estimated the cost per patient achieving persistent control of OAB. Costs were estimated from the perspective of health service payers over six months. Sensitivity analyses included variation of the resource use frequency assumptions, cost inputs, and the time horizon of the analysis.

RESULTS: After six months, the proportion of patients achieving persistent control was 39% on TER and 9% on OIR. Costs per patient for TER ranged between €349 (Germany) and €772 (Sweden) and between €177 (Germany) and €693 (Sweden) for OIR. Compared against NONE, the Incremental Cost-Effectiveness Ratios (ICERs) for TER were much lower than for OIR. ICERs of TER vs. OIR ranged between €351 (Sweden) and €822 (Spain). Sensitivity analysis highlighted the model’s sensitivity to the time horizon, physician costs and persistency rates. Differences in costs largely reflect variation in the proportion of patients in each country using incontinence pads. CONCLUSION: In this model more than twice as many patients achieve persistent control with TER than with OIR. The model estimated the cost per patient achieving persistent control would be lower with TER than with OIR.