COST-EFFECTIVENESS OF TNF-ALPHA BLOCKERS IN REAL-WORLD SETTING OF CZECH REGISTRY

Dobrász T, Petriková A, Pavlů K
1Charles University, Faculty of Medicine in Prague, Czech Republic, 2University of Veterinary and Pharmaceutical Sciences Brno, Brno, Czech Republic, 3Charles University, Rheumatology Institute, Prague, Czech Republic

OBJECTIVES: Recently the LUNDEX index as a composite measure of therapeutic response and adherence on treatment was introduced to rheumatology. The objective of our study was to assess the cost-effectiveness of TNF-alpha blockers (infliximab, adalimumab, etanercept) in Czech Republic based on real-world data from ATTRA registry. METHODS: Therapeutic response and the adherence data were derived from the registry of biologics in rheumatoid arthritis (ATTRA). The time horizon was 12 months. The response criterion used in this analysis was the remission based on EULAR definition (DAS28 < 2.6). The direct health care costs including the cost of administration during 12 months were calculated. RESULTS: Drug and administration costs for the payer during 12 months were €28,901 CZK (€16,437) for etanercept, €454,203 CZK (€17,467) for infliximab and €455,270 CZK (€17,510) for adalimumab. For calculation of the cost per LUNDEX-response over 12 months the total costs were divided by the LUNDEX-response. The results for each TNF-a blocker are shown in table as ETA: 0.83, 0.282, 0.23, 71,723EUR; INF: 0.78, 0.129, 0.10, 174,670EUR; ADA: 0.81, 0.178, 0.14, 125,074EUR for Therapy adherent (ETA: 0.83, 0.282, 0.23, 71,723EUR; INF: 0.78, 0.129, 0.10, 174,670EUR; ADA: 0.81, 0.178, 0.14, 125,074EUR) in Czech Republic based on real-world data from ATTRA registry.

HEALTH ECONOMIC EVALUATION OF THE TREATMENT OF OSTEOPOROSIS IN FIVE ITALIAN REGIONS

Baro G1, Di Tanno GL2, Integlia D2, Pannemati F2
1University College London, London, UK, 2University of Rome “La Sapienza”, Rome, Italy

OBJECTIVES: Oral bisphosphonates (OB) represent the standard treatments for osteoporosis, but despite their proven effectiveness in clinical trials, they have shown significant problems with compliance in clinical practice. The objective of this paper is to study the cost-effectiveness (CE) of Zoledronic Acid (Zol) a molecule still belonging to the category of bisphosphonates, but whose administration route is intravenous. Due to this circumstance, treatment with Zol potentially overcomes the limitations of OB, since patients are treated once a year with a single infusion. METHODS: WE use a Bayesian Markov model and perform a CE analysis integrating evidence from different sources, such as published data on clinical outcomes and official records on population, mortality and morbidity; the costs considered are for hospitalisations, pharmacological treatment and rehabilitation. Uncertainty is propagated through the model using MCMC based algorithms. The validity of the results is checked using a Proprietary Sensitivity Analysis, summarised by means of the Cost-effectiveness acceptability curve (CEAC) and the Expected value of information (EVI). RESULTS: In all the 5 regions analysed, Zol trends to reduce the number of re-fractures (~24% in Lombardia, with similar figures in the other regions), due to its higher compliance. Due to higher therapeutic efficacy and treatment, Zol produces larger savings in all the regions. The analysis of CEAC shows that the uncertainty related to the CE of Zol is limited in all the regions (with willingness to pay as low as €12,000, the posterior probability of CE reaches values as high as 0.96 in comparison with OB). The EVI analysis also shows that the value of acquiring additional information to limit uncertainty in the CE is limited. CONCLUSIONS: Zoledronic Acid proves to be an interesting alternative to OB, capable of overcoming their limitations in terms of compliance with treatment, once-off information to limit uncertainty in the CE is limited.

ECONOMIC EVALUATION OF GLUCOSAMINE SULPHATE TREATMENT IN KNEE OSTEOARTHRITIS

Simoni S, 1Katholieke Universiteit Leuven, Leuven, Belgium
OBJECTIVES: This study aims to conduct a cost-effectiveness analysis of glucosamine sulphate treatment as compared to placebo in knee osteoarthritis from the Belgian health care system perspective. The economic evaluation investigates whether the drug acquisition costs of patients receiving glucosamine sulphate treatment are balanced against the lower incidence of total knee replacement and reduced hospitalization costs.

METHODS: The study collected Belgian cost data and derived effectiveness data from a long-term follow-up of patients with knee osteoarthritis. Two randomised, placebo-controlled, double-blind trials compared patients who received oral glucosamine sulphate 1500 mg once-a-day for up to 3 years with patients who had received placebo. Patients who had participated in these two trials and who had received at least one year of treatment were enrolled in a retrospective assessment of the incidence of total knee replacement during a five-year follow-up period. The price year was 2006.

RESULTS: The sample consisted of 131 patients who had formerly received placebo and 144 patients who had formerly received glucosamine sulphate. The number of patients undergoing total knee replacement during the 5-year follow-up amounted to 19 patients (14.5%) in the former placebo group and 9 patients (6.3%) in the former glucosamine sulphate group. Health care costs per patient amounted to €1103 in the former placebo group and €901 in the former glucosamine sulphate group. CONCLUSIONS: Treatment of knee osteoarthrosis with glucosamine sulphate for at least one year and up to three years was associated with a lower incidence of total knee replacement and lower health care costs over an observation period of eight years as compared with placebo.