Abstracts

PDB24
LONG-TERM CLINICAL AND COST OUTCOMES OF TREATMENT WITH INSULIN DETEMIR PLUS INSULIN ASPART IN TYPE 1 DIABETES PATIENTS IN THE CZECH SETTING; DATA FROM THE PREDICTIVE STUDY
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OBJECTIVE: PREDICTIVE was a large, multi-national, observational study assessing the safety and efficacy of insulin detemir (IDet) in real life clinical practice. The aim of this health economic study was to assess the cost-effectiveness of IDet and Insulin aspart (IASp) versus human soluble insulin (HSI) and neutral protamine Hagedorn (NPH) in patients with type 1 diabetes, based on the Czech sub-cohort of the PREDICTIVE study.

METHODS: A published and validated computer simulation model was used to project long-term economic and clinical outcomes in a simulated cohort of type 1 diabetes patients treated with either IDet and IAsp or HSI and NPH, in a Czech setting. Probabilities of complications and HbA1c-dependent adjustments were derived from the PREDICTIVE trial. Complication and treatment costs were obtained from Novo Nordisk s.r.o. and projected over patient lifetimes from a societal perspective in the Czech Republic. Future costs and clinical benefits were discounted at 5% per annum. RESULTS: IDet + IAsp versus HSI + NPH treatment was projected to improve life expectancy by approximately 0.17 years (11.52 ± 0.14 versus 11.35 ± 0.13 years) and quality-adjusted life expectancy by 0.70 quality-adjusted life years (QALYs) (6.97 ± 0.09 versus 6.28 ± 0.08 QALYs). Treatment and complication costs associated with IDet + IAsp treatment were projected to be lower over patient lifetimes than with HSI + NPH (Czech Crowns (Kč) 921,722 ± 38,714 versus Kč 1,145,728 ± 38,599 per patient, difference Kč −224,006). IDet and IAsp were associated with a delay to the onset of any diabetes-related complication by a mean of 0.17 years (0.77 versus 0.60 years). CONCLUSION: A Czech sub-analysis of data from the PREDICTIVE study has demonstrated cost and clinical benefits for patients with type 1 diabetes. IDet + IAsp treatment was projected to be associated with improvements in life expectancy, QALYs and was cost saving compared to NPH + HSI in the Czech setting.

COSTS AND EFFECTIVENESS OF INSULIN VS. ROSIGLITAZONE IN TYPE 2 DIABETES AFTER METFORMIN MONOTHERAPY FAILURE
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OBJECTIVE: Czech guidelines recommend additional therapy with sulfonylurea, insulin or thiazolidinediones (TZD) after metformin monotherapy failure in type 2 diabetes. However TZD in Czech are perceived to represent a cost intensive treatment compared to insulin. The aim of this study was to assess annual direct medical costs/reimbursement in patients treated either with 1) rosiglitazone + metformin, or 2) insulin (monotherapy or combination) from the health care perspective. Further we performed a cost-effectiveness calculation related to HbA1c decrease.

METHODS: Total 199 patients with completed 12 months TZD or insulin treatment, who failed metformin monotherapy, were included into the analysis. Following data were recorded retrospectively: Medication, consultations related to diabetes, hospitalization (incl. ward type and lengths), devices for insulin application, patient education, selfmonitoring costs, sick-leave and HbA1c values at the beginning and end of the assessed period. Costs were calculated in 2007 prices. RESULTS: Age in both groups was comparable. Insulin patients had significantly higher entry and final HbA1c values (8.3% vs. 7.3% and 6.5% vs. 6.0% p < 0.05). Insulin treated had higher mean annual costs compared to TZD (€867 vs. €643 p < 0.05); however costs per 1% HbA1c decrease were comparable between groups (€475 vs. €469). Mean total costs for a subgroup of patients who achieved HbA1c of ≤6.0% (indicating satisfactory compensation) at the end of assessment were also significantly higher in the insulin group (€802 vs. €610 p < 0.05) despite similar entry and final HbA1c levels. Costs per 1% HbA1c decrease were comparable also in this subgroup (€375 vs. €366). CONCLUSION: Insulin or TZD added on after metformin monotherapy failure in type 2 diabetes resulted in comparable costs per 1% HbA1c decrease. Outcomes were robust also for patients who achieved HbA1c levels of ≤6.0%. Both treatment options result in similar cost-effectiveness from an annual perspective.

PDB25
ECONOMIC EVALUATION OF THE TREATMENT WITH QUINAGOLIDE IN PATIENTS WITH HYPERPROLACTINAEMIA; TUMOUR REDUCTION
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OBJECTIVE: To determine the strategy most cost-effective between Quinagolide, Bromocriptine and Cabergoline in patients with Hyperprolactinaemia respect to the tumour percentage reduction.

METHODS: A cost-effectiveness analyses was made, the efficacy measures were obtained from a meta-analysis of clinical trials of patients with hyperprolactinaemia who were treated with some of the alternatives of the study. A microcosting was performed through a pickup data instrument that was validated previously, the information was validated with a Mexican panel experts. The perspective was from Mexican Institute of Social Security. The parameters obtained were introduced to the model (decision tree) in order to obtain the total cost average by a Monte Carlo microsimulation with 100,000 iterations until was obtained a mistake less than 3%. The variables used in the analyses were the proportion of percentage reduction in tumour mass with respect to the baseline, with the information obtained was performed a Cost-effectiveness analyses and probabilistic sensitivity analyses. RESULTS: The higher cost of the treatment was with Bromocriptine (USD$3687) and the cheaper alternative was Quinagolide (USD$4184), while Bromocriptine and Cabergoline have a higher cost (USD$6145 and USD$5243 respectively). The incremental analyses show that Quinagolide was dominant, Bromocriptine and Cabergoline are more expensive and less effective (dominated). The sensitivity analyses of probabilistic type showed that the Health Net Benefits, Monetary Net Benefits and the Acceptability curves were favourable for Quinagolide independently the willingness to pay. CONCLUSION: Quinagolide is the dominant option in patients with Hyperprolactinaemia. Quinagolide gives more Health Net Benefits and Monetary Net Benefits that Bromocriptine and Cabergoline independently the willingness to pay.