from 8.98 ± 1.44% to 7.91 ± 1.19%, decrease in BMI 0.26 ± 1.36 kg/m² and reduction in major and minor hypoglycemic events by 97% and 80% respectively. Probabilities of complications, management costs adjustments (including complications) were derived from the Czech surveys from 2007. Treatment costs were from June 2009. Future costs and clinical benefits were discounted at 3.5% per annum.

RESULTS: The short-term benefits of switching from BHI 30 to BIAsp 30 are projected to lead to an increase in discounted quality-adjusted life expectancy of 0.493 years (4191 ± 0.080 versus 3689 ± 0.078). Increased total lifetime cost/patient is CZK122,594 ($34,239 ± $1,992 versus $65,712 ± $21,908) with BIAsp 30. Combining costs and clinical outcomes results in an incremental cost-effectiveness per quality-adjusted life year (QALYs) gained were dominant. CONCLUSIONS: Core diabetes T2 patients sub-cohort simulation in 15 years perspective Czech observational study has demonstrated acceptable cost-effectiveness for patients with type 2 diabetes treated with BIAsp 30. BIAsp 30 treatment was projected to be associated with improvements in life expectancy, QALYs and cost saving compared to BHI 30. Sensitivity analyses show cost-effectiveness result to be robust.

PDB25 A PATIENT-LEVEL SIMULATION MODEL FOR ECONOMIC EVALUATION OF CINACALCET IN THE TREATMENT OF SECONDARY HYPERPARATHYROIDISM (SHPT) IN PATIENTS WITH END-STAGE RENAL DISEASE

Eandi M², Pradelli L¹, Sanazzola S¹, Chiolò S¹, Pontoriera G¹

¹Università degli Studi di Torino, Torino, Italy, ²AdRes HE&OR, Torino, Italy, ³Amgen, Zug, Switzerland, ⁴Alessandro Manzoni Hospital, Lecco, Italy

OBJECTIVES: 1. Measurement levels of parathyroid hormone (PTH), serum calcium (Ca) and phosphorous (P) are associated with an increased risk of cardiovascular death and fracture. Cinacalcet can regulate these levels in patients with SHPT. Here we describe the effect of cinacalcet on individual Ca, P, and PTH levels (based on data of a European multicenter, open-label study); to correlate these levels with mortality and morbidity (cardiovascular events, fractures, and parathyroidectomies) recently published in two reviews; and to incorporate Italian data for dialysis patients and national cost structure. Simulation horizon was patient lifetime; simulated treatment alternatives were standard treatment (mainly vitamin D steroids and phosphate binders), and cinacalcet plus standard treatment. A 3.5% discount rate was applied to life expectancy (LE), quality-adjusted life expectancy (QALE), and costs and times in ranges (TiRs) recommended by the KDQOI initiative. Utilities were derived from a prospective cross-sectional survey of 180 end-stage renal failure patients with and without co-morbidities. Costs were evaluated from the Italian National Healthcare Service perspective.

RESULTS: Base case results were calculated with 10,000 iterations. Cinacalcet-treated patients had a mean (SD) increase in TiR of 5.60 (6.57), 3.45 (6.85), 1.62 (5.64) and 0.82 days, p < 0.001 after the end of the study accordingly. Average daily doses of GLA at the end of the study were 32.9 UI and for NPH—34,1 UI. Hospitalization rate was higher in GLA—87% pts and in 92% NPH pts had high HbA1c at baseline, and 45% and 82% had been switched previously from NPH. Efficacy was evaluated according to HbA1c level as target (7%). The performed CEA analysis included direct costs of medications (for insulin GLargine usage in type 2 diabetes mellitus 2, in combination with metformin, compared to the standard strategy of treatment in Poland: combination of metformin and sulphonylurea. METHODS: The cost-utility analysis is based on Markov decision model (package Tree Age Pro 2008). The following strategies of treatment were compared: vildagliptin (50 mg twice daily) versus glimepiride (mean dose 4.5 mg/day) both added to metformin (mean dose 1892 mg/day). Direct medical costs were considered: cost of oral antidiabetic drugs (OAD), cost of insulin, additional costs of treatment of type 2 diabetes (e.g. test strips, lancets), cost of general practitioner, cost of specialist visits, cost of complications of treatment in Poland: combination of metformin and sulphonylurea. RESULTS: The outcome of this analysis was that exenatide treatment was projected to improve life expectancy and QALE and reduce cumulative incidence of most diabetes-related complications including cardiovascular disease, compared with insulin glargine. By current Turkish standards, the ICER for exenatide would be considered to represent good value for money.