

represents good value for money. Using the cost-effectiveness threshold in Poland (equals to 83,239 PLN/QALY) insulin glargine should be regarded as a cost-effective option for treatment of patients with type 1 diabetes in Poland.

PDB41

COST-EFFECTIVENESS OF SOMATROPIN (NORDITROPIN®) FOR THE TREATMENT OF GROWTH HORMONE DEFICIENT (GHD) CHILDREN IN A UK SETTING

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OBJECTIVES: Reduced health-related quality of life (HRQoL) is a pronounced complication in short individuals with Growth Hormone Deficiency (GHD). Treatment options for GHD children are limited; however, somatropin therapy has been shown to normalise height in childhood and adolescence compared with no treatment. The aim of this study was to establish whether somatropin is a cost-effective treatment for GHD children compared with no treatment. **METHODS:** A cost-effectiveness model estimated the costs and health benefits over the lifetime of GHD children. A UK National Health Service (NHS) perspective was used. Unit costs (GBP; 2008) were obtained from relevant UK sources. A 3.5% discount rate was used. Clinical data (height, dosing and treatment duration) were obtained from a systematic literature review (only studies with n > 300). Height standard deviation scores (HSDS) were used for comparable height estimates. Utility data was derived from a published UK-based study linking HRQoL and HSDS. Several sensitivity analyses were conducted. **RESULTS:** Start HSDS was -2.8 (SD 0.8) and final HSDS was -1.5 (SD 0.8) with somatropin treatment. Untreated children had no HSDS gain. The mean dose was 0.023 mg/kg/day over 5.1 years duration (SD 1.8). Over a patient's lifetime, somatropin was associated with a gain of 2.0 additional quality adjusted life years (QALYs) at an incremental cost of £50,931 compared with no treatment. As a result, somatropin was associated with an incremental cost per QALY of £25,447 compared with no treatment. Probabilistic sensitivity analysis, in which all parameters within the model were varied, showed that there was a high probability that somatropin was cost effective compared with no treatment, based on a willingness to pay threshold of £30,000 per QALY. **CONCLUSIONS:** Based on a willingness to pay threshold of 30,000 GBP per QALY, somatropin(Norditropin®) is a cost-effective treatment for GHD children.

PDB42

COST-UTILITY OF INSULIN GLARGINE COMPARED TO PREMIX IN TYPE 2 FROM PUBLIC PAYER PERSPECTIVE IN POLAND

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OBJECTIVES: The aim of the study was to evaluate the cost-utility of Insulin glargine versus premix in insulin naïve and non insulin naïve patients with type 2 diabetes applied in a Polish setting. **METHODS:** Cost-utility analysis from public payer perspective was conducted with a 40 years time horizon. The model used in this evaluation is a DES model which has the ability to assess the economic impact and health consequences outlined as the development of co-morbidities of a reduction in hypoglycaemia, an improvement in glycaemia or both of these at the same time. A cohort of 1000 patients was generated in the model. Hypoglycaemia rates and rate reductions were drawn from peer-

reviewed publications. Glycaemia control has been incorporated into the model using results from The Health Improvement Network (THIN) database. Polish costs were applied in the model and only direct medical costs were considered in the analysis. Sensitivity analysis was performed. **RESULTS:** When comparing insulin glargine to premix (using base case results for background hypoglycemia events) the analyses showed that the cost per QALY was estimated at 57,678 PLN for insulin naïve patients and 44,244 PLN for non-insulin naïve patients. The total estimated discounted costs over a lifetime for insulin naïve patients were for glargine 23,158,693 PLN and for premix 16,307,845 PLN, total estimated discounted QALYs were for glargine 6,121 and for premix 6,002. In non-insulin naïve patients costs were for glargine 26,871,051 PLN and for premix 18,813,440 PLN and QALYs were 9,855 and 9,747 for insulin glargine and premix respectively. **CONCLUSIONS:** The results showed that glargine compared to premix represents good value for money. Using the cost-effectiveness threshold in Poland (which is equal to 83,239 PLN/QALY) insulin glargine should be regarded as a cost-effective option for treatment of patients with type 2 diabetes in Poland.

DIABETES/ENDOCRINE DISORDERS—

Patient-Reported Outcomes Studies

PDB43

ADDING INSULIN GLARGINE TO ORAL THERAPY IN PATIENTS WITH TYPE 2 DIABETES RESULTS IN LONGER PERSISTENCE WITH TREATMENT COMPARED TO NPH INSULIN

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OBJECTIVES: To compare the persistence with insulin Glargine (BOT = basal supported oral treatment) to those with NPH if added to oral antidiabetics. **METHODS:** A retrospective cohort study was conducted utilizing a representative real-life database IMS® Disease Analyzer. Patients with type 2 diabetes beginning insulin therapy with Glargine or NPH during the period 01/2003 to 08/2006 and being continuously eligible for at least 12 months after the treatment initiation were included. Follow-up was 12–57 months corresponding to the documentation length. Persistence was measured as time until switch to intensified insulin therapy (ICT). **RESULTS:** In total 1,242 patients were included, of whom 896 were treated with Glargine and 346 with NPH reflecting the distribution in German medical practice. The patient groups were comparable regarding age and sex and showed small differences in other characteristics. During follow-up 13.8% of patients treated with Glargine vs. 20.5% with NPH (p < 0.001) were switched to ICT. The mean duration of therapy was 764.1 days on Glargine compared to 654.4 days on NPH (p < 0.001). In Cox regression analyses beside the type of insulin patient's age, diabetes duration and the treating physician group were significantly correlated with the persistence. No correlation was found for gender, insurance status, region, type of oral therapy, documentation length and year of insulin therapy initiation. Adjusting for the factors "age", "duration of diabetes" and "physician group" the Cox regression analysis yielded a hazard ratio of 0.59 (95% CI: 0.40–0.79, p = 0.0005) for switching to ICT for Glargine compared to NPH. **CONCLUSIONS:** This real-life data analysis showed that patients receiving BOT with Glargine are treated significantly longer compared to the NPH control group before switching to ICT. Longer treat-