OBJECTIVES: Glucagon-like peptide-1 (GLP-1) receptor agonists are indicated to improve glycemic control in adults with Type 2 diabetes mellitus. The maximum daily licensed dosages in the UK are 24µg for exenatide and 1.8mg for liraglutide respectively. In addition to factors such as glycemic control, cost is another consideration when selecting treatments. The aim of this analysis was to describe the real-world daily usage and cost of exenatide BID and liraglutide in the UK setting.

METHODS: Data and study period: UK records between October 2008 and March 2011 from the IMS Dynamic Prescription database. This database captures data on all pharmaceutics dispensed (45% national coverage) of actual prescriptions dispensed, linked to individual patients (anonymized). Inclusion criteria: patients who have filled a prescription for a GLP-1 receptor agonist at least twice during the study period, all key prescription fields are complete. The weighted average daily usage was calculated using the total volume of product dispensed and the number of patients filling prescriptions per month. Drug costs (British National Formulary 61, 2011) were used to estimate average daily cost (ADC). Key assumptions: patients are not stockpiling or disposing of drug; each prescription equals one pack; patients are filling their prescriptions at the same pharmacy.

RESULTS: Data was available for a total number of unique patients of 19,200 and 12,690 for exenatide BID and liraglutide (data available from July 2009) respectively. The average daily usage during the investigated time period was estimated to be 20.49µg for exenatide and 1.51mg for liraglutide, with an estimated ADC of £2.53 and £3.29 respectively.

CONCLUSIONS: Based on the data described, GLP-1 receptor agonists are being dispensed in amounts within an acceptable range of the maximum daily licensed dosage. The ADC appears to be 30% higher for liraglutide with an estimated additional daily cost of £0.76.
maintained within FDA-defined limits). Simulations were conducted in CORE diabetes model, which is a Markov model built on the base of published clinical trials and epidemiological studies of diabetes complications. The model was extensively validated and allows for reliable estimation of costs and outcomes associated with diabetes. Model inputs were adapted to Polish setting. Economic analysis was conducted in lifetime horizon, costs and outcomes were discounted (5% and 3.5%, respectively), the infantile mortality is 25.511 euro per QALY gained. RESULTS: John’s QALY is 0.3 lower that QALY of Peter. Treatment of John’s complications is 400 euro more expensive as compared to Peter. If willingness to pay (WTP) equals to €7500 per euro QALY, yearly costs of Peter’s treatment may be 250 euro higher that John’s. If WTP is €50,000 per life-year difference in treatment costs may be as high as 725 euro. CONCLUSIONS: DM2 treatment along with PDA recommendations may be cost-effective provided additional costs do not exceed €725 per year.

PD843 THE ECONOMIC IMPACT OF WEIGHT LOSS IN PATIENTS NEWLY DIAGNOSED WITH TYPE 2 DIABETES MELLITUS (T2DM) AND YOUNGER THAN FIFTY IN SWEDEN

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OBJECTIVES: This study estimated the effect of weight reduction on long-term outcomes and associated direct medical costs for patients newly diagnosed with T2DM. METHODS: The life-times of 500 cohorts of 500 patients with characteristics based on the Swedish National Diabetes Register using the Economic and Health Outcomes (ECHO)-T2DM model. All patients were assumed to increase weight over time (0.23 kg per year) however, reduction of the patients weight was assumed to be a joint rate of 0.96 per patient per day). Costs and health gains were discounted at the joint rate of 3%.

RESULTS: The incremental utility gain in within trial analyses was 0.101, the incremental event and medication costs in the public price scenario were €942 leading to an ICER of €43,996 per QALY. In the lifetime simulation model the incremental utility gain was 0.149, the incremental event and medication costs in the public price scenario leading to an ICER of SEK 10,509 – 17,845 in Sweden. The cost analysis takes the perspective of the Portuguese National Health System. RESULTS: Therapy conversion to insulin detemir plus OADs improves life expectancy by 0.016 years and quality-adjusted life years (QALY) by 0.462 compared to NPH insulin plus OAD. The incremental cost effectiveness ratio cost per life years gained and per QALY gained with insulin detemir plus OADs treatment as compared to NPH insulin plus OAs is 2,339€ and 393€ respectively. Type 2 diabetes

PD842 THE COST-EFFECTIVENESS OF GETTING TO GLUCOSE, BLOOD PRESSURE, AND LIPID GOALS IN PATIENTS NEWLY DIAGNOSED WITH TYPE 2 DIABETES MELLITUS (T2DM) AND YOUNGER THAN FIFTY IN SWEDEN

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INTRODUCTION: Good T2DM management requires not only good control of blood glucose, but also blood pressure and serum lipid levels. Although data from the Swedish National Diabetes Registry indicates that more patients have attained recommended levels of these biomarkers over time compared to a historical cohort, there is still much room for improvement. The aims of this study were to: 1) estimate the cost-effectiveness of intensified therapy to achieve Swedish-specific targets for HbA1c, systolic blood pressure (SBP), and LDL cholesterol (LDL) in Swedish T2DM patients compared to standard of care alone. 2) to perform a probabilistic sensitivity analysis to deal with uncertainty and to construct variability around the cost-effectiveness estimates. OBJECTIVES: Assess the cost-effectiveness of intensifying therapy to achieve Swedish-specific targets for HbA1c, systolic blood pressure (SBP), and LDL cholesterol (LDL) for patients newly diagnosed with T2DM and younger than 50 years of age.

METHODS: We used the Economic and Health Outcomes (ECHO)-T2DM model, a Markov-based micro-simulation model, to simulate the lifetimes of 500 cohorts of 500 hypothetical patients under two different scenarios: 1) treatment to maintain target goals for HbA1c, SBP and LDL; and 2) treatment to maintain levels observed empirically in Sweden. Pharmacotherapy treatment pathways for the control of hyperglycemia, hypertension and dyslipidemia followed Swedish guidelines and were identical in the two scenarios. The costs of pharmacotherapy and medical events were obtained from Swedish data. RESULTS: Treatment to HbA1c, SBP and LDL goals versus treatment to observed levels in Sweden resulted in a small QALY gain (0.13) and medical cost-savings of SEK 35,529(€3,950). Spending on glucose-lowering agents, anti-hypertensives, and lipid-lowering agents was increased by SEK 4136(€460), SEK 4864(€540) and SEK 2390(€265), respectively. Costs due to micro- and macrovascular complications were reduced by SEK 5731(€637) and SEK 5522(€608), respectively. CONCLUSIONS: For patients newly diagnosed with T2DM and younger than fifty in Sweden, intensifying therapy to maintain target goals, blood pressure, and lipid levels resulted in increased spending on pharmacotherapy, however, spending on micro- and macrovascular events was reduced by a greater degree. These results suggest that allocating more resources toward the attainment of these goals may be welfare-improving.

PD845 COST-EFFECTIVENESS OF TRANSFERRING TYPE 2 DIABETIC PATIENTS FROM NEUTRAL PROTAMINE HAGEDORN (NPH) TO DETEMIR IN PORTUGAL SETTLEMENTS

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OBJECTIVES: To estimate the long-term cost-effectiveness of transferring type 2 diabetes patients to an insulin detemir regimen therapy from a Neutral Protamine Hagedorn (NPH) insulin regimen in the Portuguese routine clinical practice. METHODS: A computer simulation model "CORE Diabetes Model" was used to make long-term projections of clinical outcomes and direct medical costs based on short-term findings from the European cohort in the PREDICTIVE trial. Therapy conversion to insulin detemir was associated with a reduction in glycosylated haemoglobin (HbA1c) by 0.2% (p < 0.05), mean body weight was reduced by 0.7 kg (p<0.01) and the incidence of total hypoglycaemia decreased from 11.7 to 3.0 episodes per patient per year (p<0.05). The cost analysis takes the perspective of the Portuguese National Health System. RESULTS: Therapy conversion to insulin detemir plus OADs improves life expectancy by 0.016 years and quality-adjusted life years (QALY) by 0.462 compared to NPH insulin plus OAD. The incremental cost effectiveness ratio cost per life years gained and per QALY gained with insulin detemir plus OADs treatment as compared to NPH insulin plus OAs is 2,339€ and 393€ respectively. Type 2 diabetes