each drug, as well as lab and imaging tests, were collected with the Delphi technique in line with 11 expert panels, with one type 2 diabetes mellitus in diabetes and Public Hospital specialized units. Local unit cost data were collected from officially published sources (Ministry of Health and Social Insurance Funds). One way sensitivity analyses were performed to test the results. RESULTS: Lanreotide Autogel in case of advanced acromegaly treatment by €25,816 per patient over the 30-year time horizon. 93% of the savings were attributed to the reduction in drug acquisition and administration costs. Discount rate was the most influential parameter in the sensitivity analysis. The total cost of management acromegaly in Greece, including lab and imaging tests, over a 5-year time horizon was estimated to range between €22.9 and €22.2 million, with a 30% and 60% market share for Lanreotide Autogel, respectively. Therefore, doubling Lanreotide Autogel’s share would lead to total savings of €781,604 per patient over the 30-year time horizon. In comparison with Octreotide LAR may result in a reduction of the total cost in the management of acromegaly in Greece.

PDB97
THE OPPORTUNITY OF TREATING TYPE II DIABETES WITH DPP4I: AN ECONOMIC EVALUATION versus CONVENTIONAL TREATMENT IN THE ITALIAN SETTING
Cost-Effort
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OBJECTIVES: To compare dipeptidyl-peptidase 4 inhibitors (DPP4i) and sulfonylurea (SU) for the treatment of type II diabetes mellitus in terms of economic impact and considering both the Italian National Health System (NHS) and the societal perspective. METHODS: The economic evaluation was performed as a model-based cost-minimization analysis for the comparison DPP4i and SU as second line therapy, in 30-year time horizon, per one year period. Clinical events to be included in the model were selected from literature review and the opinion of a panel of clinical experts. Resources used were quantified and valued adopting costs and tariffs related to drugs and direct medical costs (inpatient and outpatient), diabetes-related complications, and glycaemic hypoglycaemic events, macrovascular complications and the switch to insulin therapy. One-way sensitivity analyses for model inputs were conducted. RESULTS: Due to lower cost of drug acquisition in the baseline scenario, for the Italian NHS were about 728 Euro per patient/year in the case of DPP4i and on average 702 Euro for SU. The overall yearly cost for the society was estimated to be about 728 Euro per patient in the case of DPP4i while it was on average 770 Euro where the combination strategy was compared to insulin therapy. The average cost saving was about €58 Euro per patient/year due to lower costs of productivity loss for hypoglycaemic events and stroke. CONCLUSIONS: The use of DPP4i as second line therapy resulted in a cost saving from the societal perspective and just the high cost for drug acquisition made the adoption of DPP4i more costly than SU for the Italian NHS. This result outlined that DPP4i represents a valuable alternative for the management of diabetes both from a clinical and economic perspective and costs will be lowered overall just intervening on cost for drug acquisition.

PDB98
Cost-MINIMISATION ANALYSIS of SAXAGLIPTIN COMPARED TO SITAGLIPTIN and LINAGLIPTIN AS TRIPLE THERAPY IN COMBINATION WITH METFORMIN AND A SULfonylUREA IN the TREATMENT OF TYPE 2 DIABETES MELLITUS FROM A UK HEALTH CARE PERSPECTIVE
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OBJECTIVES: To evaluate the cost of using the dipeptidyl-peptidase-4 inhibitor (DPP4i) saxagliptin, compared to sitagliptin and linagliptin, as add-on to basal insulin therapy in combination with metformin and sulfonylurea (met-SU) for the treatment of patients with type 2 diabetes mellitus (T2DM) who are inadequately controlled on metformin-based treatment. Methods: Indirect treatment comparisons (ITCs) were performed with regards to the key T2DM outcomes of HbA1c, cardiovascular (CV) risk, health utility decrement, and the cost savings. RESULTS showed that saxagliptin treatment significantly improves HbA1c by 0.60 (95% CI: -0.24 to 0.97). Health effects were reached at an additional cost of 217 $ (95% CI: -356.9 to 796.8), resulting in an incremental cost-effectiveness ratio of 362 $ per QALY gained. Sensitivity analyses showed that these results were robust to changes in input parameters. At a willingness-to-pay threshold of 30,000 $/QALY the exenatide strategy had a near 100% probability of being cost-effective compared to basal insulin. CONCLUSIONS: When Saxagliptin is used in combination with basal insulin in T2DM patients, saxagliptin-based treatment is a cost-effective treatment strategy compared to insulin glargine and metformin.

PDB99
COST-EFFECTIVENESS OF SITAGLIPTIN versus SULfonylUREA AS AN ADD-ON THERAPY to METFORMIN in PATIENTS with TYPE 2 DIABETES in a BELGIUM SETTING
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OBJECTIVES: Assess the cost-effectiveness of sitagliptin versus sulfonylurea as an add-on to metformin to metformin among type 2 diabetes patients currently on metformin but not achieving HbA1c goal in Belgium. METHODS: We employed a previously published individual-level simulation model that incorporated risk equations/algorithms from the UKPDS Outcomes Model (8) to predict the long-term clinical outcomes. Applications of explicit assumptions on risk factors and side effects was based on clinical trials, observational studies, systematic reviews and meta-analyses of relevant RCTs, as well as the most recent findings on the potential benefit of DPP4 on other-cause mortality and cardiovascular disease. The potential detrimental effect on myocardial infarction (MI). European patient profiles and Belgium-specific data on drug prices, diabetes-related complication treatment costs, treatment patterns and costs associated with the use of saxagliptin were projected to cost €1,102 more than a sulfonylurea-based treatment strategy per patient lifetime, with the majority of excess costs from prescription drugs. Life expectancy was 0.077 years greater per patient on a saxagliptin-based strategy compared to a sulfonylurea-based strategy. The discounted gain in QALYs was 0.082 years with the saxagliptin-based strategy, driven by better glycaemia, weight, and MI risk profile. The estimated ICER was €1,460/QALY. Sensitivity analyses demonstrated that the ICER was somewhat sensitive to the patient life expectancy and the weight utility decrement, and most sensitive to assumptions on relative risk parameters. When no relative risk reduction on MI or other-cause mortality was assumed, the ICER was €1,754/QALY and €1,053/QALY, respectively. When no risk reduction was applied for other-cause mortality, the ICER increased to €2,691/QALY. CONCLUSIONS: Using a threshold of €15,000 per QALY gained, compared to a sulfonylurea-based treatment strategy, a sitagliptin-based treatment strategy was cost-effective in metformin-failed patients with type 2 diabetes in Belgium.

PDB100
COST-EFFECTIVENESS OF EXENATIDE TWICE-DAILY (BID) ADDED TO BASAL INSULIN COMPARSED TO A BOLUS INSULIN ADD-ON IN TURKEY
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OBJECTIVES: Type 2 diabetes (T2D) patients on basal insulin with uncontrolled HbA1c levels often receive an add-on with bolus insulin to lower HbA1c levels. The aim of this analysis is to estimate long-term cost-effectiveness of treating T2D patients with – a recently introduced – twice daily (BID) exenatide add-on to basal insulin, in terms of health care costs and quality-adjusted life years (QALYs). METHODS: Clinical inputs for both treatment strategies were taken from the GDWM clinical trial. The strategies were assessed using a micro-simulation disease model (CARDFIFF). The model predicted micro- and macro-vascular complications based on the UKPDS equations. The incidence of adverse events, diabetes related complications and changes in body weight yielded estimates of health care costs and health utilities. The direct (twice and complication) costs in the model reflect the Social Security Institute costs. Discounting of costs and effects at 3% over the 40 year follow-up of the model, resulted in life time estimates of costs and quality-adjusted life years (QALYs) on both treatment strategies. Deterministic and probabilistic sensitivity analyses, as well as elaborate scenario analyses were performed. RESULTS: Results showed that exenatide treatment significantly improves QALYs by 0.60 (95% CI: 0.24 to 0.97), Health effects were reached at an additional cost of 217 $ (95% CI: -356.9 to 796.8), resulting in an incremental cost-effectiveness ratio of 362 $ per QALY gained. Scenarios analysis showed that these results were robust to changes in input parameters. At a willingness-to-pay threshold of 30,000 $/QALY the exenatide strategy had a near 100% probability of being cost-effective compared to basal insulin. CONCLUSIONS: When Exenatide BID is added to basal insulin regimen, the widespread strategy consists of adding mealtime insulin. An alternative option is adding twice-daily exenatide (BID), a glucagon-like peptide-1 receptor agonist. The objective was to estimate the cost-effectiveness in Spain of exenatide BID compared to metltime bolus insulin lispro, both added to insulin glargine and metformin. METHODS: The published and validated CARDFIFF long-term diabetes model was used to estimate the direct medical costs and quality-adjusted life years (QALYs) associated with each strategy. Patient characteristics at baseline, efficacy and safety inputs were all derived from a head-to-head, double-blind, randomized controlled trial (NCT00960661), comparing both strategies for 30 weeks. Based on the United Kingdom Prospective Diabetes Study-68 equations, the model predicted long-term disease progression and occurrence of micro- and macro-vascular complications, including mortality. Costs and utilities were assigned to complications, hypoglycaemias, adverse events and body mass index changes. Pharmacoeconomical analyses were performed from the perspective of the health care payor, over a lifetime horizon, at a discount rate of 3% (costs and health outcomes). Univariate and probabilistic sensitivity analyses were conducted. RESULTS: Treatment with exenatide BID produced an incremental benefit of 0.61 QALYs (95% CI: 0.26 to 0.99) compared to treatment with insulin lispro, at an additional cost of €146 (95% CI: €1,114 to €1,679) resulting in an incremental cost-effectiveness ratio of €239 per QALY gained. The exenatide BID strategy reached a probability of 100% of being cost-effective at a willingness-to-pay threshold of €2,500 per QALY gained. Sensitivity analyses showed that results were robust to variation in range of model parameters. CONCLUSIONS: Exenatide BID was predicted to be a cost-effective treatment alternative to metformin bolus insulin in Spain for T2D patients not at target with insulin glargine.
**PDB102**

**RETROSPECTIVE ANALYSIS OF THE ECONOMIC BURDEN AMONG CUSHING’S DISEASE PATIENTS IN THE U.S. MEDICARE PROGRAM**

**OBJECTIVES:** To evaluate the economic burden among patients diagnosed with Cushing’s disease (CD) in the U.S. Medicare program. **METHODS:** Patients diagnosed with CD (International Classification of Disease, 9th Revision, Clinical Modification (ICD-9-CM) diagnosis code 255.0) were identified using U.S. Medicare data from January 2008 through 31 December 2010. The initial diagnosis date was designated as the index date. A matching comparator cohort was created including patients of the same age, race and gender but without a CD diagnosis, and a randomly-chosen index date to minimize selection bias. Patients in both cohorts were required to be age ≥18 years, with continuous medical and pharmacy benefits for 1 year pre- and 1 year post-index date. A one-to-one propensity score-matching was done to compare health care costs and utilizations during the follow-up period between the diseased and comparison cohorts, and was adjusted for baseline demographic and clinical characteristics. **RESULTS:** After risk adjustment by PAS, a total of 340 patients in each cohort were matched. CD patients had significantly higher health care utilization, including inpatient admissions (36.18% vs. 12.53%, p < 0.0001) and long-term care (5.29% vs. 2.06%, p < 0.05), other services (100% vs. 94.12%, p < 0.0001) and pharmacy costs (84.41% vs. 78.24%, p < 0.05) compared to those without the disease. CD patients incurred significantly higher inpatient ($4,688 vs. $1,139, p < 0.0001) and pharmacy costs ($4,054 vs. $2,100, p < 0.0001) compared to those without CD. Long-term care and other service costs incurred were higher for CD patients, compared to comparison patients, but was not statistically significant. **CONCLUSIONS:** Compared to comparison patients, patients with CD in the U.S. Medicare program had a higher burden of illness in terms of health care resource utilization and costs, compared to those without a CD diagnosis.

**PDB103**

**THE POTENTIAL VALUE OF ONGOING SUPPORT IN TYPE-1 DIABETES MELLITUS WITHIN THE DAFNEplus PLACEBO RUN-IN PERIOD PRE-TEST BASELINE ANALYSIS ON PROPOSED TRIAL END-POINT TARGET FOR 12-MONTH HbA1C IMPROVEMENT**

**Basaria S., Pollard D., Brennan A., Elliott J., Heller S., Campbell M.J.**

**OBJECTIVES:** To assess the cost-effectiveness of dapagliflozin, a sodium-glucose cotransporter-2 (SGLT-2) inhibitor versus dipeptidyl peptidase-4 inhibitor (DPP4i) both added top of insulin, and dapagliflozin added to insulin with a GLP-1 receptor agonist for patients who are inadequately controlled on insulin strategy. **METHODS:** The CARDIFF diabetes model was used. Clinical inputs were derived from a randomized clinical trial comparing dapaglizofin add-on to insulin alone, in a 98% probability when compared to the DPP4i strategy. These findings were robust to variation in range of model parameters. **CONCLUSIONS:** Dapagliflozin added on top of insulin was predicted to be cost-effective (vs. insulin alone) and cost saving (vs DPP4i) alternative in Spain in combination with insulin for patients who are inadequately controlled with insulin treatment regimens.

**PDB106**

**THE COST-EFFECTIVENESS OF TOLVAPTAN FOR THE TREATMENT OF HYPERNATREMIA SECONDARY TO SYNDROME OF INAPPROPRIATE ANTIDIURESIS (SIADH) IN SPAIN**

**Truman D.1, Robinson P.2, Dale P.3, Reilly K.4, Lundberg J.5, Jamoeckee C.7**

**OBJECTIVES:** Tolvaptan is a selective vasopressin V2-receptor antagonist indicated for the treatment of adult patients with hyponatraemia (BN) secondary to syndrome of inappropriate antidiuretic hormone secretion (SIADH). To date there have been no published economic evaluations assessing the cost-effectiveness of tolvaptan in this indication. The aim of this study was to evaluate the cost-effectiveness of tolvaptan versus no active treatment (NAT) from a Swedish societal perspective. **METHODS:** A Markov model was used to simulate patients with hyponatraemia with and without tolvaptan treated (TOLV) and compared to those with and without NAT. The analysis was performed from a Swedish healthcare payer perspective over a lifetime horizon, with a discount rate of 3% (costs and health outcomes). Univariate and probabilistic sensitivity analyses were conducted. **RESULTS:** Tolvaptan plus MET plus SU resulted in a dominant strategy compared to INS add-on to MET plus SU, providing a gain of 0.377 QALYs (95% CI: -0.027 to 0.754) and cost savings of €264 (95% CI: -1.879 to €2,161) At a willingness-to-pay threshold of €30,000 per QALY gained, SACTAX strategy had an 82% probability to be cost-effective. Compared to T2D add-on to MET plus SU, the triple therapy with SAXA reached an incremental cost-effectiveness ratio of €2,610 per QALY gained. **CONCLUSIONS:** Saxagliptin was predicted to be a cost-effective option in Spain when a new drug needs to be added in T2DM patients inadequately controlled with metformin and sulphonylureas alone.

**PDB107**

**THE COST-EFFECTIVENESS OF DAPAGLIFLOZIN IN COMBINATION WITH INSULIN FOR THE TREATMENT OF TYPE 2 DIABETES MELLITUS (T2DM) IN SPAIN**

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**OBJECTIVES:** In patients with type 2 diabetes mellitus (T2DM), when blood glucose is not adequately controlled by the combination of metformin (MET) and sulphonylurea (SU), the clinician has to choose between adding a third oral drug or starting insulin therapy. The objective of this study was to assess the cost-effectiveness in the Spanish setting of adding saxagliptin (SAXA) to MET and SU, compared to adding basal insulin (INS) to MET and SU. **METHODS:** A Markov model was used to simulate patients with T2DM, to compare saxagliptin add-on to basal insulin (INS) compared with added basal insulin (INS), also added on top of MET and SU. **RESULTS:** The published and validated CARDIFF long-term diabetes model was used to estimate the direct medical costs and quality-adjusted life-years (QALYs) associated with the different treatment strategies for over a lifetime horizon. The perspective of the Spanish Health Care System was adopted over a lifetime horizon, at a discount rate of 3% (costs and health outcomes). Univariate and probabilistic sensitivity analyses were conducted. **RESULTS:** Saxagliptin add-on to MET plus SU resulted in a dominant strategy compared to INS add-on to MET plus SU, providing a gain of...