PDB102
RETRIEPTIVE ANALYSIS OF THE ECONOMIC BURDEN AMONG CUSHING’S DISEASE PATIENTS IN THE U.S. MEDICAID PROGRAM
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OBJECTIVES: To evaluate the economic burden among patients diagnosed with Cushing’s disease (CD) in the U.S. Medicaid 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. Medicaid 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. One-to-one propensity score matching (PSM) was used 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 PSM, 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 <0.001) and long-term care (5.29% vs. 2.06%, p <0.05), other services (100% vs. 94.12%, p <0.001) and pharmacy visits (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 <0.05) and pharmacy costs ($4,054 vs. $2,100, p <0.0001) and long-term care costs (5.29% vs. 2.06%, p <0.05) compared to those without the disease. CD patients were not statistically significant.
CONCLUSIONS: Compared to patients in the U.S. Medicaid program with 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 WITH THE DAFNE PLUS PROGRAMME PRE-TERM HDAC IMPROVEMENT
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OBJECTIVES: The Dose Adjustment For Normal Eating (DAFNE) structured education programme is shown to be effective both in terms of clinical outcomes and cost-effectiveness when compared to the treatment of TIDM. DAFNEPlus aims to build on the results of the DAFNE 5-day curriculum based on psychological and sociological findings in DAFNE, input from DAFNE graduates and emerging knowledge around behavioural science and technological developments. The current suggested primary endpoint is for the TIDM. DAFNEPlus aims to add an additional 20% of DAFNE participants to achieve either, (a) a reduction of at least 0.5% in HbA1c, or (b) an HbA1c below 7.5% (58 mmol/mol), at 12 months. This paper undertakes pre-trial what-if cost-effectiveness analyses concerning the DAFNEPlus programme, which aim to be useful both in the design of the intervention itself and of the proposed trial. METHODS: The Sheffield Type 1 Diabetes Policy Model is an individual patient-level simulation model of T1DM. It includes long-term microvascular (retinopathy, neuropathy and nephropathy) and macrovascular (myocardial infarction, stroke, revascularisation and angina) diabetes-related complications and acute adverse events (severe hypoglycaemia and diabetic ketoacidosis). Econometric methods were used to obtain the treatment and comparator input-responders in this type 1 diabetes policy model Wi. DAFNEPlus would be considered as cost-effective if the additional spending on the intervention would be limited to €550/€551 per patient per year, depending on the assumptions on the length of maintenance period for the HbA1c benefit and the target HbA1c responder endpoint (70% in total) being achieved in the future trial. To achieve a more favourable cost-effectiveness probability of 80%, for example, the additional per patient per year cost should be restricted to €395/€474 range. CONCLUSIONS: Pre-trial modelling has enabled a clear understanding of the threshold range for the annual cost of DAFNEPlus, which is still being designed, in order to be considered as cost-effective at the €20,000/QALY threshold.

PDB104
THE COST-EFFECTIVENESS OF SAXACLASSIN WHEN ADDED TO METFORMIN AND SULPHONYLUREA IN THE TREATMENT OF TYPE 2 DIABETES MELLITUS 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 (BASAL) to MET and SU. METHODS: A decision analytic model compared with added value (T2D), also added on top of MET and SU. METHODS: 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 strategy C. The model used is the T2DM model developed to model the progression of individuals through multiple inpatient admissions over a 30 day time horizon (180 days in the SCLC scenario). The model considered all SADH, SCL and pneumonias to be associated with reduced costs and QALY improvements. The results were most sensitive to the duration of tolvaptan treatment and the assumptions around duration of hospitalisation. CONCLUSIONS: In all populations considered (all SADH, SCL and pneumonias) tolvaptan was associated with reduced costs and increased QALYs.

PDB105
THE COST-EFFECTIVENESS OF DAPAGLIFLOZIN COMBINATION WITH INSULIN FOR THE TREATMENT OF TYPE 2 DIABETES MELLITUS (T2DM) IN SPAIN
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OBJECTIVES: To assess the cost-effectiveness of dapagliflozin, a sodium-glucose co-transporter-2 inhibitor (SGLT-2) inhibitor versus dipeptidyl peptidase-4 inhibitor (DPP4i) both added on top of insulin as add-on to insulin therapy 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 dapagliflozin add-on to insulin with insulin alone, but were not statistically significant. RESULTS: Dapagliflozin added on top of insulin was predicted to be a cost-effective alternative with 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 HYPOATRIOCARDIA SYNDROME TO INAPPROPRIATE INAUTERIC HORMONE SECRETION (SIADH) IN SWEDEN
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OBJECTIVES: Tolvaptan is a selective vasopressin V2-receptor antagonist indicated for the treatment of adult patients with hyponatraemia (HN) secondary to syndrome of inappropriate antidiuretic hormone secretion (SIADH). To date there have been no studies 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: Economic model was developed from a network of individuals with HN secondary to SIADH who have either failed to respond to fluid restriction or for whom the use of fluid restriction is not suitable. The analysis considered a ‘hypertensive’ population modelled to be similar to the Swedish population with a small SIADH component. All patients were hospitalised. A discrete event simulation model was developed to model the progression of individuals through multiple inpatient admissions over a 30 day horizon (180 days in the SCLC scenario). Key sources of evidence included randomized controlled trials (SALT 1 & 2) and observational, national, and international sources. Unit costs were collected from publicly available sources. Utility values were obtained from mapping the SF-12 scores from the SALT 1 & 2 trials to EQ-5D. The primary outcome of the analysis was the incremental cost-effectiveness ratio (ICER) expressed as a cost per quality-adjusted life-year (QALY). RESULTS: In the ‘all SIADH’ population tolvaptan was associated with reduced costs (SEK 5,778) and increased QALYs (0.0019) versus NAT and was therefore dominant. In the SCLC and pneumonia subgroups tolvaptan was also associated with reduced costs and QALY improvements. The results were most sensitive to the duration of tolvaptan treatment and the assumptions around duration of hospitalisation. CONCLUSIONS: In all populations considered (all SIADH, SCL and pneumonias) tolvaptan was associated with reduced costs and increased QALYs.

PDB107
COST-EFFECTIVENESS OF EMPAGLIFLOZIN (JARDIANC)® 10 MG AND 25 MG ADMINISTERED AS AN ADD-ON TO METFORMIN COMPARED TO OTHER SODIUM-GLUCOSE CO-TRANSPORTER 2 INHIBITORS (SGLT2Is) FOR PATIENTS WITH TYPE 2 DIABETES MELLITUS (T2DM) IN THE UK
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OBJECTIVES: To assess the cost-effectiveness of the novel SGLT2i empagliflozin 10mg and 25mg compared to other SGLT2is (canagliflozin 100mg, canagliflozin 300mg, and dapagliflozin 10mg) when administered as an add-on to metformin for the treatment of T2DM in the UK. METHODS: A micro-simulation model was developed, based on the United Kingdom Prospective Diabetes Study (UKPDS86) and the Januvia Diabetes Economic (JADE) model, to estimate long-term diabetes-related complications, QALYs and costs in a cohort of T2DM patients initiating dual therapy. The model was populated with the results of a network meta-analysis that estimated 0.377 QALYs (95% CI: 0.227 to 0.754) and cost savings of €264 (95% CI: -1,879 to €2,100) per QALY gained. CONCLUSIONS: Saxagliptin was predicted to be a cost-effective option in Spain when a new add-on to T2DM patients inadequately controlled with metformin and sulphonylurea alone.