thiazolidinediones (Met-TZD), metformin plus meglitinide (Met-MEG), and metformin and non-dPP4I add-on therapy (Met-DPP4I). Five treatment cohorts included: (1) Met-TZD effectiveness - Met plus insulin; four comparisons - Met-SU-ACA, Met-SU-TZD, Met-SU-MEG and Met-SU-DPP4I. These combinations of cohorts were constructed because they were most commonly prescribed in Taiwan. Each comparison subject was 1.1–1.2 mmol/L glucose to reach the reference subject on demographic and comorbidity. The effectiveness outcomes were cardiovascular complication (CVD) and survival. Only direct medical costs were included (expressed in 2014 US dollars). Mackow chain models from the GDC Diabetes Cost-effectiveness group were adapted to project lifetime outcomes with discounted at 3% per annum. Bootstrapping tech- nique was applied to account for uncertainty in analyses. RESULTS: The average age-weighted lifetime costs were $94,112, of which 61% was attributed to diabetes complications. The estimated lifetime CVD risk was 34%, with the highest in Met-SU and the lowest in Met-TZD (40% vs. 31%, p<0.05) in the dual therapy, while in the triple therapy, the users of Met-SU-DPP4I had lower CVD risk as compared to Met-TZD (41% vs. 46%, p=0.01). Average direct medical costs were mainly driven by hospitalization; Met-DPP4I and Met-SU-DPP4I, were highest, due to high drug acquisition price. However, over lifetime, Met-Inslitin had the highest spending, most attributed to managing diabetic complications. Sensitivity analyses demonstrated the most cost-effectiveness of Met-TZD use in dual therapy followed by Met-DPP4I and Met-SU-DPP4I. The results would inform clinical selection of add-on therapy in the patients with inadequately controlled by metformin.

PD854 IMPACT OF WEIGHT-RELATED UTILITIES ON THE COST-EFFECTIVENESS OF CANAGLIFLOZIN (CANA) VERSUS SIATLIGPIN (SITA) AS THIRD-LINE THERAPY IN TYPE 2 DIABETES MELLITUS PATIENTS
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OBJECTIVES: Weight management via healthy eating and increased physical activ- ity is a cornerstone of T2DM treatment. CANA, an agent that inhibits sodium glucose co-transporter 2, decreases glucose levels by lowering the renal thresh- old for glucose excretion thereby increasing urinary glucose excretion (UGE), which generally leads to reductions in weight and systolic blood pressure (SBP). Dipeptidyl peptidase-4 inhibitors such as SITA are not associated with weight loss or weight-related utility changes. Sensitivity analyses with weight changes associated with weight changes may be a key driver of economic evaluations that compare these agents.

The objective of this analysis was to examine the impact of alternative weight-related utility change estimates on the cost-effectiveness of CANA 300 mg versus SITA 100 mg using results from a clinical study in patients inadequately controlled with metformin plus sulphonylurea. METHODS: The ECHO-T2DM, a validated model of T2DM, was used to estimate the cost-effectiveness of CANA versus SITA as an add-on to dual therapy over 40 years using 3 different sources for weight-related utility changes: (A) CODE-2, (B) CADTH, and (C) new Canada-specific estimates to Met-Insulin (44% vs. 58%, p<0.01). The IMS CORE Diabetes Model was used to evaluate the cost-effectiveness of GLIM (5 and 10 years) favored GLIM by eliminating this benefit, yielding higher ICERs. The effectiveness outcomes were cardiovascular complication (CVD) and survival.

RESULTS: CANA dominated SITA in all 3 cases. The NMBs for the comparison of CANA versus SITA varied from $4,500 (CATHD) to $2,724 (CODE-2). The NMBs for CANA and SITA using the Ontario-specific estimates were $4,690. CONCLUSIONS: These results illustrate that weight-related utility changes may be a key driver of economic evaluations that compare these agents.

PD855 THE COST-EFFECTIVENESS OF CANAGLIFLOZIN (CANA) VERSUS SIATLIGPIN (SITA) AS AN ADD-ON TO METFORMIN OR METFORMIN PLUS SULPHONYLUREA IN THE TREATMENT OF TYPE 2 DIABETES MELLITUS IN SPAIN
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OBJECTIVES: CANA, an agent that inhibits sodium glucose co-transporter 2, decreases glucose levels by lowering the renal threshold for glucose excretion, thereby resulting in an increase in urinary glucose excretion (UGE), which in turn reduces weight, as well as systolic blood pressure (SBP). In contrast, dipeptidyl peptidase-4 inhibitors such as SITA lower glucose but are not associated with weight loss or a reduction in SBP. The objective of this analysis was to evaluate the cost-effectiveness of CANA 300 mg and 100 mg versus SITA 100 mg in dual therapy and triple therapy as an add-on to metformin and as an add-on to metformin plus sulphonylurea, respectively, from the Spanish National Health System perspective.

METHODS: The IMS CORE Diabetes Model was used to evaluate the cost-effectiveness of CANA 100 and 300 mg versus SITA using Spanish-specific utilities and cost data. Direct costs were reported in euros and an annual discount rate of 3% was applied on costs and effects. The time horizon used for the economic evaluation was 10 years. The_probability of systolic hyperglycemia, atherosclerotic, treatment effects, and safety were sourced from direct comparisons using clinical trial data for CANA. Results were compared with the willingness- to-pay threshold for Spain ($5,000/QALY). RESULTS: The results suggest that CANA 100 mg dominates SITA in dual therapy and in triple therapy, with estimated quality-adjusted life year (QALY) gains of 0.027 and 0.057, respectively. CANA 300 mg is cost-effective compared to SITA in dual and triple therapy, with a cost-effectiveness of €2,889 and €4,140, respectively. The result was calculated using the SITA 100 mg add-on to metformin, with ICERs of €62,889 and €93,022, respectively. CONCLUSIONS: The results suggest that adding CANA 100 or 300 mg instead of SITA in patients inadequately controlled on metformin or metformin plus sulphonylurea would result in more efficient use of healthcare resources in the Spanish setting.

PD856 A62 LIRAGLUTIDE VS. SIATLIGPIN AS ADD-ON TO METFORMIN TREATMENT FOR TYPE 2 DIABETES MELLITUS: SHORT TERM COST-FEASIBLE-CONTROLLED PATIENT IN ITALY
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OBJECTIVES: To estimate the short-term cost per controlled patient with type 2 diabetes mellitus (T2DM) with liraglutide 1.2mg/day vs. sitagliptin 100mg/day in Italy. METHODS: Composite endpoint defined as “HbA1c<7% AND no weight gain AND no hypoglycemia” was adopted to describe the controlled T2DM patient. Based on data from a clinical trial (1806-Lira-DPP4) and a meta-analysis (Zinnman et al, 2012), the percentage of patients achieving the composite endpoind after 26 and 52 weeks of liraglutide and sitagliptin were obtained. In addition, responder rates after 78 weeks were obtained for patients switching at 52 weeks from sitagliptin to liraglutide and a hypothetical cohort continuing on sitagliptin. Treatment cost was calculated using the National Italian prices for the most recent 26- and 52- and 78-week time horizon. The cost-effectiveness primary outcome was the cost per patient achieving the composite endpoint. RESULTS: Despite a daily medica- tion cost ratio of 2.30 between liraglutide and sitagliptin, after 26 weeks liraglutide led to improved outcomes with efficacy data extracted from the clinical trial ($1,460 vs. $1,820) and from a meta-analysis of available liraglutide trials ($1,593 vs. $2,234). At 52 weeks, liraglutide per controlled patient is also slightly lower than with sitagliptin ($2,672 vs. $2,649). At 78 weeks, in patients who have switched from sitagliptin to liraglutide at 52 weeks, the cost per controlled patient is lower than that of the hypothetical group of patient controlled with 78 weeks of continued sitagliptin treatment ($2,889 vs. $3,970). CONCLUSIONS: These results demonstrate that, due to higher effectiveness, liraglutide 1.2mg/day is associated with better cost-effectiveness results than sitagliptin 100mg/day after 26 and 52 weeks. Moreover, switching patients from sitagliptin after 52 weeks to liraglutide might result in a clinical benefit that may lower the cost per controlled patient with respect to 78-weeks of continued sitagliptin treatment.

PD857 THE EFFECT OF TREATMENT INTENSIFICATION ASSUMPTIONS ON ESTIMATES OF COST-EFFECTIVENESS IN TYPE 2 DIABETES MELLITUS (T2DM)
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OBJECTIVES: T2DM is a chronic, progressive disease and proper economic evalua- tion of alternative treatment interventions requires economic modeling over long time horizons. As currently available treatments cannot halt disease progression, most patients eventually require therapy intensification to meet HbA1c goals. This analysis explores the impact of commonly used intensification assumptions on cost- effectiveness estimates of canagliflozin (CANA) versus sitagliptin (SITA) in T2DM. Sensitivity analyses using simulations of canagliflozin (CANA) versus sitagliptin (SITA) among o...