thiazolidinediones (Met-TZD), metformin plus meglitinide (Met-MEG), and metformin plus DPP4I (DPP4i). Five therapy cohorts including: combination therapy - 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 propensity score matched to 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 charting was used for the Diabetes Cost of Care Database. The economic model was adapted to project lifetime outcomes with discounted at 3% per annum. Bootstrapping technique was applied to account for uncertainty in analyses. RESULTS: The average age and gender weighted lifetime costs were $94,112,5 of which 61% was attributed to diabetes complications. The estimated lifetime CVD risk was 34%, with the highest in Met-SU-DPP4i (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 compared to Met-SU-TZD (40% vs. 46%, p<0.01). Average daily per patient costs in the 26-, 52-, and 78-week time horizon, were highest, due to high drug acquisition price. However, over lifetime, Met-Sulin had the highest spending, most attributed to managing diabetic complications.

Sensitivity analyses demonstrated the most cost-effectiveness of Met-TZD use in dual therapy effects. However, 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 changes 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 sulfonylurea. METHODS: The ECHO-TZD2, a validated model of TZD2, was used to estimate the cost-effectiveness of CANA versus SITA as an add-on in 400 newly diagnosed patients aged 40 years using alternative weight-related utility changes: (A) CODE-2, (B) CADTH, and (C) the new Canadian-specific estimates that distinguish between weight gain and weight loss. Patient characteristics, treatment effects, and adverse events were sourced from the aforementioned clinical study. A willingness-to-pay threshold of $50,000 was used and net monetary benefits (NMBs) were calculated. RESULTS: CANA dominated SITA in all 3 cases. The NMBs for the comparison of CANA versus SITA varied from $4,500 (CADTH) to $2,748 (CODE-2). The NMBs for the comparison of CANA versus SITA with no weight change were $4,690. CONCLUSIONS: These results illustrate that weight-related utility changes are important drivers in cost-effectiveness assessments of agents with different mechanisms of action. The effectiveness outcomes were cardiovascular complication (CVD) and survival. The ECHO-TZD2 model was used to evaluate the cost-effectiveness of CANA 100 and 300 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 sulfonylurea, respectively, from the Spanish National Health System perspective. METHODS: The ECHO-TZD2, a validated micro-simulation model, was used to simulate effectiveness outcomes (HbA1c, weight loss or a reduction in SBP). The objective of this analysis was 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 cost-effectiveness analysis was 5 years. A composite endpoint defined as "HbA1c<7% AND no hypoglycemia" was adopted to describe the controlled TZD2 patient. Based on data from a clinical trial (1860-Lira-DPP4), and a meta-analysis (Zinman et al, 2012), the percentage of patients achieving the composite endpoint after 26 and 52 weeks for liraglutide and sitagliptin was 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. Niels De Grae, Johansen, Christensen, Nielsen A.T.

The objective of this analysis was 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: A composite endpoint defined as "HbA1c<7% AND no hypoglycemia" was adopted to describe the controlled T2DM patient. Based on data from a clinical trial (1860-Lira-DPP4) and a meta-analysis (Zinman et al, 2012), the percentage of patients achieving the composite endpoint after 26 and 52 weeks for liraglutide and sitagliptin was 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.