OBJECTIVES: The costs for the antidiabetic agents were based on published wholesale acquisition costs data for 2014. An incremental cost-effectiveness ratio (ICER) was calculated to determine cost per additional percentage point for lowering the A1c from the health payer perspective.

RESULTS: Dapagliflozin was more effective than dipeptidyl peptidase-4 inhibitors in lowering A1c levels and was associated with additional 0.07% lowering of the A1c level after adjusting for covariates. Dapagliflozin was more expensive than metformin with an annual cost of $3,470.40 while dipeptidyl peptidase 4 inhibitors had an annual costs of $3,405.60. The resulting ICER indicated that there was a cost $926 for each additional percentage point that the A1c was lowered by using dapagliflozin.

CONCLUSIONS: Dapagliflozin was more effective than dipeptidyl peptidase 4 inhibitors in lowering A1c levels, yet it was also more expensive. Decision makers trying to decide whether or not to use these medications must be prepared to decide if the additional benefit is worth the cost.

PB525

COST-EFFECTIVENESS ANALYSIS OF EpMAGLIFLOZIN 25MG Versus SITAGLIPTIN 100MG in the TREATMENT of PATIENTS with TYPE 2 DIABETES METtUSIS (2DiM) wHEN ADDED to METFORMIN (MET) from a MEXICAN PUBLIC INSTITUTIONAL CONTEXT

Huisches-Barret J1, Vargas-Valencia JP, Herranz S2, Molina T2, Rasputin A2, Ehrlich G1, Goyal A1, Sabapathy S1

OBJECTIVES: To evaluate the CE ratio of empagliflozin 25mg compared to sitagliptin 100mg when added to MET in patients with 2DM. METHODS: A discrete event simulation model was developed for the lifetime (LY) gain of patients with negative control chronic diseases with no established relationship with T2D. RESULTS: The unadjusted association between both genetic disorders and T2D was positive and heterogeneous (p<0.001) in all four databases. The unadjusted pooled odds ratio (OR) calculated using a random-effects model meta-analysis was 3.48 (95% CI: 2.21-5.46) for HFI and 2.71 for AAT (95% CI: 1.75-4.20). After pooling all patients and adjusting for the negative controls using a random-effects model meta-analysis, it was found that HFI patients have a 73% increased odds of T2D (ratio of odds ratios (ROR)=1.73, 95% CI: 1.08-2.75) compared to patients with negative control diseases; the association was stronger when utilizing a fixed-effects model meta-analysis (ROR=2.19, 95% CI: 2.07-2.31). The adjusted association between AAT and T2D was statistically significant in the fixed-effects (ROR=3.33, 95% CI: 1.27-4.40) model meta-analysis but not the random-effects model meta-analysis (ROR=1.35, 95% CI: 0.86-2.12). CONCLUSIONS: HFI and T2D were positively associated after adjustment for negative control chronic diseases in both meta-analysis models. Rare disease researchers using observational data to conduct comparability analyses can utilize negative controls and multiple datasets to account for ascertainment bias and database heterogeneity, respectively.

PB505

COST-EFFECTIVENESS EVALUATION OF CanagliflozIn Versus Dapagliflozin in patients wITH TYPE 2 Diabetes Mellitus? inadequately controlled on Metformin Monotherapy in SPAIN

Oishi TS, Shubar Ali NS, Wingate LT

Huard University, Washington, DC, USA

OBJECTIVES: Proper glycermic control reduces the frequency of microvascular and macrovascular complications in type 2 diabetes. Many patients require more than one medication to reach goal glycated hemoglobin (A1c) levels. The objective of this study was to assess the cost-effectiveness of dapagliflozin versus the dipeptidyl peptidase 4 inhibitors in lowering A1c levels.

RESULTS: Dapagliflozin was more effective than dipeptidy peptidase 4-inhibitors in lowering A1c levels and was associated with additional 0.07% lowering of the A1c level after adjusting for covariates. Dapagliflozin was more expensive than metformin with an annual cost of $3,470.40 while dipeptidyl peptidase 4 inhibitors had an annual costs of $3,405.60. The resulting ICER indicated that there was a cost $926 for each additional percentage point that the A1c was lowered by using dapagliflozin.

CONCLUSIONS: Dapagliflozin was more effective than dipeptidyl peptidase 4 inhibitors in lowering A1c levels, yet it was also more expensive. Decision makers trying to decide whether or not to use these medications must be prepared to decide if the additional benefit is worth the cost.