Type 2 diabetes mellitus (T2DM) is a chronic and progressive disease characterised by β-cell dysfunction, insulin resistance, and hyperglycaemia. To assess how reflective of UK clinical practice the predicted results are likely to be by using real-world inputs and assumptions, as opposed to inputs from randomised controlled trials (RCTs) and treatment guidelines. Maintaining near-normal blood glucose levels, combined with lifestyle interventions that include weight loss and control of blood pressure (BP) and haemoglobin A1C (HbA1c), is key to optimal treatment of T2DM.

Long-run analyses using ECHO-T2DM found that CANA 100 and 300 mg led to improved patient outcomes (as measured by life years and quality-adjusted life years) versus DAPA 10 mg over a 40-year time horizon in patients whose HbA1c was inadequately controlled with metformin (MET) alone, from the national health care perspective in the UK.

The Cost-Effectiveness of Canagliflozin Versus Dapagliflozin Control on Metformin Monotherapy in the United Kingdom

OBJECTIVES

The objective of this analysis was to reflect on the clinical practice of T2DM management, presenting the relationship between patient characteristics and treatment choice of optimal insulin titration schedules applied in the model.

METHODS

Economic analyses were performed using data from the CANA 300 mg and DAPA 10 mg arms. Furthermore, a sensitivity analysis was conducted by assuming a low inherent risk of hypoglycaemia, which is consistent with the characteristics of the ECHO-T2DM population.

In a real-world, data-driven scenario, patient characteristics (e.g., age, gender, HbA1c, smoking status, history of stroke) were drawn for each hypothetical patient. Sensitivity analyses were conducted to evaluate the impact of changes in patient characteristics on treatment choices and outcomes.

DISCUSSION

A cost-effectiveness analysis can be used to determine the cost-effectiveness of medical interventions. The cost-effectiveness of two different treatments can be compared to determine which treatment is more cost-effective. A cost-effectiveness analysis can also be used to determine the impact of changes in patient characteristics on treatment choices and outcomes.

CONCLUSIONS

The results of this analysis suggest that both doses of CANA are cost-effective versus DAPA 10 mg in real-world treatment of T2DM. The cost-effectiveness of CANA 300 mg is higher than DAPA 10 mg, but the difference is small and not statistically significant. The results of this analysis support the clinical practice of using CANA 300 mg in real-world treatment of T2DM.