

Assessing Clinical Trial Data on Cardiac Risk in Type 2 Diabetes Treatment

BACKGROUND:

Type 2 Diabetes (T2D) is a form of diabetes mellitus which is caused by a combination of genetic and environmental factors. T2D is a chronic disease and is associated with shorter life expectancy, as well as other health complications including strokes, blindness, and heart disease. Treatment options for T2D include changes to exercise and eating habits, as well as a range of medications to help prevent the onset of other conditions. These medications include sodium-glucose cotransporter-2 (SGLT2) inhibitors and GLP-1 receptor agonists (GLP-1 RAs), either alone or in combination, to reduce adverse cardiovascular outcomes.

RESEARCHER QUESTION:

Dr. João Sérgio Neves is an endocrinologist, based in the Faculty of Medicine of the University of Porto and São João Hospital in Porto, Portugal. Dr. Neves does clinical research in



endocrinology, and has a particular interest on the effects of endocrine diseases on cardiovascular risk and cardiac function.

For this study, Dr. Neves and his fellow researchers sought to assess the effects of GLP-1 RAs on cardiovascular outcomes in patients with T2D, comparing outcomes for patients treated with SGLT2 inhibitors in combination with GLP-1 RAs, and those treated with GLP-1 RAs alone.

“I think that Vivli is doing remarkable work which contributes to the future of research and enhanced utilization of already collected data.” - Dr. João Sérgio Neves

FINDINGS

The research team’s findings indicate that patients with T2D and cardiovascular disease experienced fewer GLP-1 RAs cardiovascular events, whether or not they were also treated with SGLT2 inhibitors. The findings suggest that treating eligible patients with the combination of GLP-1 RAs and SGLT2 inhibitors may reduce their risk of cardiovascular events even further, but this proposal requires further investigation in a clinical trial setting.

IMPACT

Following on from these results, the research team has received inquiries from doctors seeking guidance on how to interpret the findings and make decisions about recommending combination therapy. The European Society of Cardiology also published an updated guideline in 2023 which recommends that patients with T2D and cardiovascular disease should be treated with combination therapy.

RESEARCH PROCESS:

To study the impact of GLP-1 RAs on cardiovascular outcomes among patients with T2D, with and without treatment with SGLT2, the research team requested access to one long-term study held on the Vivli database of clinical trial data. This study included individual patient data (IPD) from more than 9000 participants; of these, 575 (6.1%) were treated with SGLT2 inhibitors at baseline, in addition to standard treatment with GLP-1 RAs.

NEXT STEPS:

READ MORE

[GLP-1 Receptor Agonist Therapy With and Without SGLT2 Inhibitors in Patients With Type 2 Diabetes](#) (Journal of the American College of Cardiology)

[“Vivli Researcher Spotlight: Assessing Clinical Trial Data on Cardiac Risk in Type 2 Diabetes Treatment”](#) (Vivli website)

[Find out more about requesting data from Vivli.](#)