Real-world study supports use of semaglutide for long-term management of type 2 diabetes

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New research presented at the Annual Meeting of The European Association for the Study of Diabetes (EASD), Hamburg (2–6 Oct), shows that treatment with the drug semaglutide significantly improves

blood sugar control and weight loss in adults with type 2 diabetes for up to three years.

"Our long-term analysis of semaglutide in a large and diverse cohort of patients with type 2 diabetes found a clinically relevant improvement in blood sugar control and weight loss after six months of treatment, comparable with that seen in randomized trials," says Professor Avraham Karasik from the Institute of Research and Innovation at Maccabi Health Services in Israel who led the study.

"Importantly, these effects were sustained for up to three years, supporting the use of once weekly semaglutide for the long-term management of type 2 diabetes."

Type 2 diabetes is a chronic and progressive condition in which the body does not make or use insulin normally, leading to high levels of glucose in the blood. The condition tends to become more severe over time and blood sugar levels become more difficult to manage. Glucagon-like peptide-1 (GLP-1) receptor agonists, such as semaglutide, have given patients more control in lowering of blood sugar.

While the effectiveness of once weekly semaglutide to treat type 2 diabetes has been demonstrated in randomized controlled trials, long-term, large-scale real-world data have been lacking.

Israeli researchers from the Maccabi Health Services, the second largest health maintenance organization in Israel (including 2.6 million people), retrospectively analyzed data on the use of semaglutide in 200,000 patients from the Maccabi diabetes registry.

They identified 23,442 eligible patients, who had redeemed at least one prescription for weekly semaglutide subcutaneous injections (0.25, 0.5 and 1 mg) between August 2019 and December 2022, and had one blood

sugar control measurement (HbA1c) 12 months before, and six months after, starting treatment.

All 23,442 patients (49% female, average age 62 years, average weight 94.1 kg, average BMI 33.7 kg/m^2, average HbA1c 7.6 %) were included in the analysis and evaluated for changes in HbA1c and weight, for up for up to three years.

Adults with type 2 diabetes should aim for a target HbA1c of less than 7%. Higher HbA1c levels are associated with complications like heart disease, stroke, kidney disease (nephropathy), eye disease (retinopathy) and nerve disease (neuropathy).

Data were analyzed both for the total population (23,442 patients) and among patients who started taking semaglutide at least two years before the end of study period (December 2022, 6,049 patients). The proportion of days covered (PDC; the proportion of days in which a person has access to the medication in the first 180 days and first two years) was used to express treatment adherence.

Before being prescribed semaglutide, 30% of patients were treated with insulin, and 31% were treated with another GLP-1 RA. Within the first six months, adherence to semaglutide treatment (PDC) was over 60% among 75% of patients. Average (median) follow-up time was 17.6 months.

Six months after treatment initiation, on average patients lowered their HbA1c by 0.77% (from 7.6% to 6.8%) and reduced their body weight by 4.7 kg (from 94.1 kg to 89.7 kg).

The reduction in blood sugar levels and weight loss was more pronounced among those who had never taken a GLP-1 RA compared to those who had previously taken a GLP-1RA (HbA1c reduction -0.87%

vs. -0.54%; weight loss -5.5kg vs. -3.0 kg, respectively). Higher adherence to therapy resulted in greater reduction in both blood sugar levels and weight loss (PDC ≥60% compared to