

Italian Study Confirms Diabetes Remission Possible with GLP-1 Drugs

Researchers examined the clinical characteristics, frequency, and outcomes of type 2 diabetes (T2D) remission following initiation of a [glucagon-like peptide-1 receptor agonist](#) (GLP-1RA).

T2D is a metabolic disorder that can lead to a substantially high burden without effective intervention due to macrovascular and [microvascular complications](#). The prevalence of T2D has reached pandemic levels and is projected to increase.

T2D remission has emerged as a realistic goal, especially with interventions that lead to significant weight loss. GLP-1RAs have been effective in reducing [glycemia](#), cardiovascular and renal risk, and body weight.

The possibility of T2D remission with GLP-1RAs has attracted attention, particularly following the development of dual incretin receptor agonists. Despite the increasing clinical use of GLP-1RAs, evidence on the clinical correlates and frequency of [T2D remission](#) is limited.



Study

In this multicenter Italian study, researchers analyzed clinical characteristics, remission frequency, and outcomes using different definitions of T2D remission after GLP-1RA initiation. The GLP-1RA for Simplification in Diabetes (GLIMPLES) study collected retrospective [electronic health record](#) data of T2D patients who started GLP-1RAs between January 2010 and January 2022. The index date corresponded to the first GLP-1RA prescription. Remission was evaluated post-index date according to four definitions.

Clinical Measures and Statistical Analysis

Intermediate endpoints included [blood pressure](#), body weight, HbA1c, urinary albumin-to-creatinine ratio (UACR), and estimated glomerular filtration rate (eGFR). Complications assessed included microangiopathy, macroangiopathy, and cardiovascular events. Baseline comparisons used Chi-squared and Student's t tests. Logistic regression examined associations between GLP-1RA type and remission, while Cox proportional hazard models compared time-to-event outcomes.

Participant Profile and GLP-1RA Distribution

A total of 14,141 T2D patients initiating GLP-1RA therapy were included in the analysis. The average participant was 60 years old with a 10-year [diabetes](#) history, a BMI of 32 kg/m², and a baseline HbA1c of 8.1%. Common baseline treatments included metformin, insulin, and sulfonylureas. GLP-1RAs used were dulaglutide (50.5%), liraglutide (24.9%), semaglutide

(12.1%), exenatide (11%), and lixisenatide (1.4%). Nearly 25% of participants switched GLP-1RAs during follow-up.

Implications and Prognostic Value of R3 Definition

T2D remission occurred in a notable proportion of GLP-1RA users, with outcomes varying by definition. The R1 definition showed 5.8% remission, while the permissive criteria (R4) reached 18.3%. Among definitions, R3 represented the most balanced measure, offering moderate prevalence (12.2%), [longer durability](#) (9.3 months), and improved microvascular and cardiovascular outcomes.

Conclusion

Limitations included retrospective design, absence of [mortality data](#), lack of event adjudication, potential attrition bias, and medication discontinuation not guided by protocol. These factors may influence observed remission rates and outcomes.

Source:

<https://www.news-medical.net/news/20251029/Diabetes-remission-possible-with-GLP-1-drugs-Italian-study-confirms.aspx>