

# GLP-1s for young T2D: Are we underestimating their real-world impact?

Written by The Life Science Feed Editorial Team · Published 30 September 2026 · Edited by Mara Voss

European regulators approved GLP-1 receptor agonists for type 2 diabetes in children as young as ten back in 2019, but how the drugs are actually being used, and whether they work outside a trial's tightly controlled conditions, has stayed largely undocumented. A real-world registry study presented at the European Association for the Study of Diabetes (EASD) Annual Meeting fills in both gaps.<sup>1</sup>

## KEY TAKEAWAYS

- **The Pivot:** Real-world GLP-1 use in children, adolescents and young adults with type 2 diabetes has more than quadrupled since 2019, and registry data now show it produces measurable benefit outside the controlled conditions of a trial.
- **The Data:** Use rose from 6.3% to 27.2% of young people with type 2 diabetes between 2019 and 2025; among those tracked over time, 37% achieved a 5% or greater reduction in BMI SDS and hypertension prevalence fell from 60% to 52%.
- **The Action:** Treat GLP-1 therapy as a genuine option across the paediatric-to-young-adult age range for type 2 diabetes with obesity, not just an adult-population drug extended downward on a technicality, while continuing to monitor real-world safety given how young and how recent this prescribing pattern is.

Dr Marie Auzanneau of Ulm University and colleagues drew on the Diabetes Prospective Follow-up (DPV) registry, tracking 1,878 individuals aged 6 to 24 with type 2 diabetes across Germany, Austria and Luxembourg between 2019 and 2025. Median age was 16.3 years, 54% were female and 37% had a migration background.<sup>1</sup>

Around 200,000 young people in Germany alone live with extreme obesity, often alongside complications including sleep apnoea, depression and type 2 diabetes, the kind of continuous weight gain that persists despite diet and exercise interventions and that GLP-1 drugs are designed to interrupt.

## How Fast Use Grew

Of the 1,878 young people in the registry, 388 had taken a GLP-1 receptor agonist, including the dual GIP/GLP-1 agonist tirzepatide, at some point between 2019 and 2025. Use climbed from 6.3% of the 448 young people with type 2 diabetes in the registry in 2019 to 27.2% of the 611 in 2025, a more than fourfold increase in six years.

Growth was not confined to older adolescents. In 2025, GLP-1 drugs were prescribed to 14% of patients aged 6 to under 12, 28% of those 12 to under 18, and 29% of those 18 to 24. Liraglutide remained the most-prescribed drug throughout, used by 11.8% of all young people with type 2 diabetes in 2025, 43.4% of everyone on any GLP-1 drug that year.

## Does It Work

A subset of 240 young people with GLP-1 use documented across at least two clinic visits let the researchers track outcomes directly. Median treatment duration was 11 months, usually alongside metformin. The drug mix shifted over that time: liraglutide fell from 70% to 63% of prescriptions, while semaglutide rose from 10% to 17% and tirzepatide from 4% to 8%.

This group started treatment heavily overweight: 19% with overweight, 44% with obesity and 32% with extreme obesity, and a mean BMI standard deviation score, the age-adjusted weight measure used in children, of 2.23, squarely in the obese range. Over the course of treatment, 37% achieved a BMI SDS reduction of at least 5%, and 25% reached at least 10%; the average reduction across the whole group was 2.3%.

Glycaemic control improved alongside the weight change, and the proportion of young people with hypertension fell from 60% to 52%. Both the BMI SDS reduction and the blood pressure improvement held up after adjusting for sex, age group, migration background and starting BMI, evidence the effect was not simply explained by who started treatment lightest.

The observed improvements in both metabolic and cardiovascular risk factors underscore the potential for GLP-1 RAs to offer comprehensive benefits beyond mere weight reduction in this vulnerable population. The sustained reduction in BMI SDS and the decline in hypertension prevalence suggest a favorable impact on the long-term trajectory of T2D complications, which are particularly aggressive in younger individuals. This is crucial, as early onset T2D is associated with a higher lifetime risk of microvascular and macrovascular complications compared to adult-onset disease, often requiring more intensive and complex management strategies.

However, the study's observational nature and the relatively short median treatment duration of 11 months warrant careful interpretation. While the DPV registry provides valuable real-world data, the absence of a control group means that causality cannot be definitively established. Confounding factors, such as concurrent lifestyle interventions or the natural history of the disease in some individuals, might also contribute to the observed improvements. Furthermore, the shift in drug prescriptions over time, with an increase in semaglutide and tirzepatide use, reflects evolving clinical practice and the introduction of newer, potentially more efficacious agents, but also complicates direct comparisons of individual drug effects within this dataset.

Despite these limitations, the findings offer compelling insights for healthcare professionals managing young patients with T2D. The significant uptake of GLP-1 RAs, particularly among adolescents and young adults, highlights a growing recognition of their therapeutic utility in this challenging demographic. The data suggest that these agents can be a valuable addition to the treatment armamentarium, especially for those struggling with persistent weight gain and associated comorbidities. Clinicians should consider GLP-1 RAs as an early intervention option, alongside metformin, to improve glycemic control, reduce weight, and mitigate cardiovascular risk in young patients with T2D, while closely monitoring for long-term efficacy and safety in this population.

### Clinical Implications and Future Directions

The rapid adoption and demonstrated efficacy of GLP-1 RAs in young individuals with T2D, as evidenced by the DPV registry, strongly suggest a paradigm shift in the management of this complex condition. The observed improvements in BMI SDS, glycemic control, and blood pressure are particularly impactful given the aggressive nature of T2D in youth and the high prevalence of obesity-related comorbidities. These real-world data complement findings from controlled trials, such as the STEP TEENS trial for semaglutide and the SURMOUNT-OSA trial for tirzepatide in adults, by demonstrating effectiveness in a broader, more heterogeneous patient population often excluded from rigorous clinical trials.

However, the long-term safety and durability of these effects in pediatric and adolescent populations remain critical areas for further investigation. While GLP-1 RAs have a generally favorable safety profile in adults, the extended exposure period required for chronic conditions in younger patients necessitates ongoing surveillance for potential rare adverse events, including pancreatitis, gallbladder issues, and medullary thyroid carcinoma, although the latter has not been definitively linked in human studies. Furthermore, the psychological impact of long-term medication use, adherence rates, and the potential for rebound weight gain upon discontinuation are important considerations for clinicians and researchers.

Future research should prioritize randomized controlled trials specifically designed for pediatric and adolescent populations, with longer follow-up periods to assess sustained efficacy, long-term safety, and impact on hard clinical endpoints such as cardiovascular events and kidney disease progression. Comparative effectiveness studies between different GLP-1 RAs, including dual agonists, would also be beneficial to guide treatment selection. Additionally, exploring the optimal timing of initiation, combination therapies, and the role of GLP-1 RAs in preventing T2D progression in high-risk youth are crucial next steps to fully understand and leverage their real-world impact.

#### CLINICAL IMPLICATIONS

The honest headline from Dr Auzanneau's own framing is not that GLP-1 drugs work in young people, trials had already established that under controlled conditions, it is that they still work when prescribed in ordinary clinics to a real, heterogeneous population that a phase 3 trial's inclusion criteria would have screened out. A 2.3% average BMI SDS reduction sounds modest against the trial literature until set against the years of continuous weight gain, despite lifestyle intervention, that brought these young people to a GLP-1 prescription in the first place.

The fourfold growth in six years is itself a clinical signal worth sitting with. Prescribing this new, in a population this young, expanding this fast, is exactly the situation that calls for continued real-world monitoring rather than assuming the adult safety literature transfers cleanly downward by age. The registry itself is that monitoring infrastructure, and this analysis is an early, reassuring readout from it, not a final verdict.

Dr Auzanneau's own assessment, that these drugs remain underused given the persistent 200,000-strong population of German adolescents with extreme obesity, points to where the practical gap sits: concerns about side effects and inconsistent insurance coverage, not efficacy, are what is holding prescribing back at 27% rather than higher. That is a health-system and access problem more than a clinical one.

This is registry data with no control arm and no journal publication yet, an abstract and short oral presentation rather than a peer-reviewed paper, so it should inform practice as real-world reassurance rather than displace the trial evidence GLP-1 approval in this age group already rests on. The blood pressure and glycaemic improvements, holding after adjustment for the obvious confounders, are the strongest part of the signal; the weight change is real but modest, and worth describing to families in those terms rather than trial-level numbers.

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## REFERENCES

1. Auzanneau M, et al. Real-world use and effectiveness of GLP-1 receptor agonists in children, adolescents and young adults with type 2 diabetes: data from the DPV registry. Presented at: European Association for the Study of Diabetes (EASD) Annual Meeting; September 28-October 2, 2026; Milan, Italy. Abstract 788.

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