Patient experience with GLP-1 dose titration and its association with treatment adherence; real-world insights from the AccessCMD registry

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PCR164

ISPOR Europe 2026

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INTRODUCTION & AIM

- Glucagon-like peptide-1 (GLP-1) receptor agonists have transformed the management of type 2 diabetes, obesity and related cardiometabolic diseases (CMDs). Despite the proven efficacy of GLP-1 therapies in clinical trials, real-world evidence shows that discontinuation rates exceed 40% within the first year (Ulrich et al., 2026; Marshall et al., 2026).
- Beyond treatment-related adverse events, literature suggests that persistence may vary according to GLP-1 agent, Body Mass Index (BMI), and patient characteristics, while socioeconomic, financial and psychological barriers may further influence long-term treatment adherence (Ceriello et al., 2026; Do et al., 2024).
- The interplay and relative contribution of these factors to GLP-1 treatment persistence remains poorly understood, with particularly limited evidence on GLP-1 users' experience with dose titration and its impact on treatment adherence. Addressing these evidence gaps is essential for informing targeted clinical and population-level interventions to improve long-term GLP-1 treatment outcomes.

We examined modifiable experiential, treatment- and access-related factors associated with GLP-1 treatment persistence, aiming to identify opportunities for targeted patient support and more equitable GLP-1 treatment pathways.

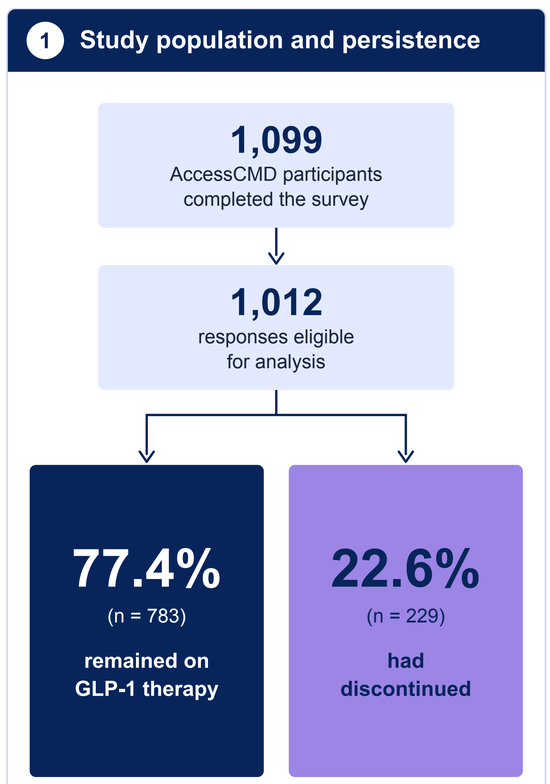
METHODS

- AccessCMD - a remote CMD patient registry, linking longitudinal electronic health record (EHR) data with patient-reported outcomes (PROs) was used to identify and study adult GLP-1 users in the UK.
- AccessCMD operates under an umbrella protocol, approved by the East Midlands–Derby Research Ethics Committee. Consented participants agree to secondary use of data and linkage with their EHRs, and PRO data collected via integrated online questionnaires.
- Participants with current or prior GLP-1 use completed online Patient Reported Experience Measures (PREMs) on titration experience (very easy to very hard), clarity of instructions, and support needs.
- Logistic regression explored the likelihood of treatment persistence (defined as EHR and/or self-reported current GLP-1 use) based on collected PREMs and other clinical and socioeconomic co-variates including side-effects, medication category, and access route.

RESULTS

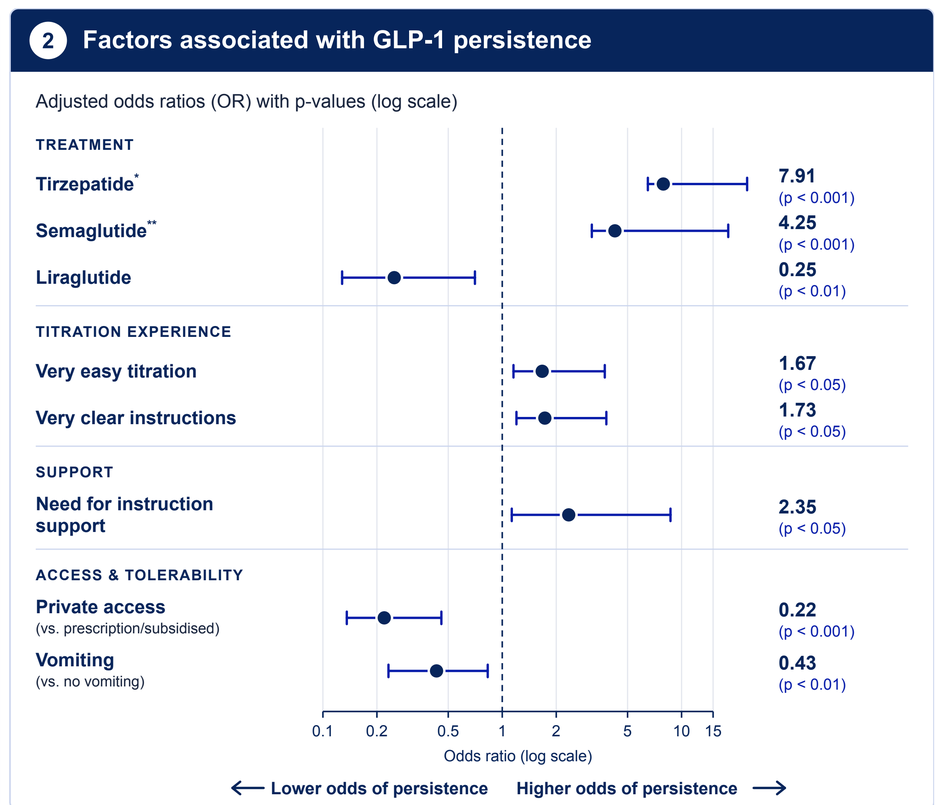
- 1,099 AccessCMD participants completed the GLP-1 titration experience survey, and 1,012 responses were eligible for analysis. At survey completion, 77.4% (n=783) participants remained on GLP-1 therapy and 22.6% (n=229) had discontinued (Fig. 1).
- Participants had a mean age of 59.5 (±11) years and mean BMI of 35.0 (±7.3) kg/m²; 58.3% were female.
- The logistic regression model had an overall classification accuracy of 79.6% (χ^2=231.26, p<0.001).
- Most GLP-1 types impacted persistence (p<0.05), with diabetes-indicated tirzepatide being the strongest predictor of persistence (OR=7.91, p<0.001). Exposure to injectable semaglutide for weight-loss was also associated with higher odds of persistence (OR=4.25, p<0.001), while liraglutide exposure was associated with substantially lower odds of persistence (OR=0.25, p<0.001) (Fig. 2).
- Very easy titration and very clear titration instructions were associated with about 1.7-fold higher odds of persistence (OR=1.67 and OR=1.73, respectively; p<0.05), while reporting a need specifically for instruction support yielded nearly 2.4-fold higher odds of persistence (OR=2.35, p<0.05) (Fig. 2).
- Lower odds of persistence were observed with private (vs. prescription/subsidised) GLP-1 access route (OR=0.22, p<0.001) and among participants reporting vomiting (OR=0.43, p<0.01) (Fig. 2).
- The adjusted predicted probability of persistence was higher with very clear vs. neutral instruction clarity (80% vs 72%; p<0.05), and lower with very difficult vs. intermediate titration ease experiences (59% vs 76%; p<0.05) (Fig. 3).

Figure 1. Participant flow from GLP-1 titration experience survey completion to the eligible analytical sample, stratified by treatment persistence at survey completion.



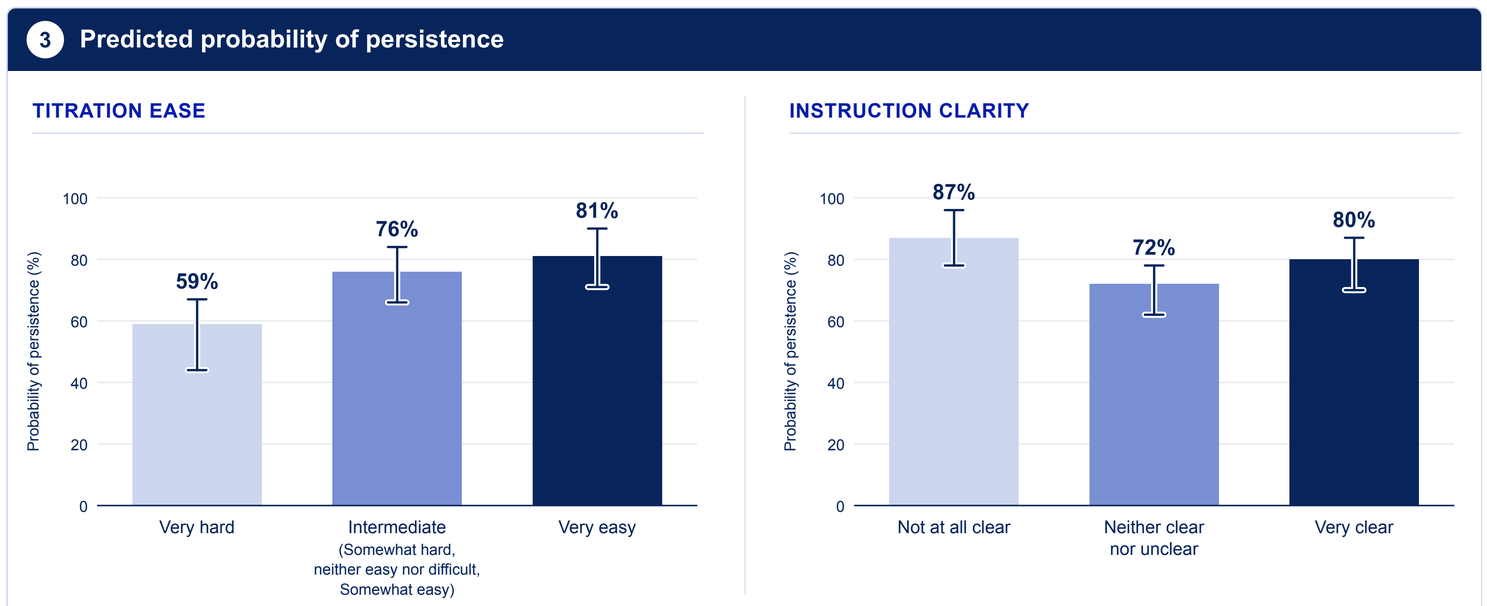
Note: Persistence is defined as Electronic Health Record (EHR) and/or self-reported GLP-1 use at the time of survey completion.

Figure 2. Factors associated with GLP-1 treatment persistence. Adjusted odds ratios (ORs) and 95% confidence intervals from the multivariable logistic regression model examining treatment, titration experience, support needs, access route and tolerability factors associated with GLP-1 persistence.



Note: OR >1 indicates higher odds of persistence; OR <1 indicates lower odds of persistence.; Whiskers represent 95% confidence intervals (CIs); * Injectable formulation, indicated for type 2 diabetes treatment; ** Injectable formulation, indicated for weight loss.

Figure 3. Adjusted predicted probability of GLP-1 treatment persistence by titration experience.
Adjusted predicted probabilities and 95% confidence intervals according to titration ease and instruction clarity.



Note: Intermediate titration combines “somewhat hard,” “neither easy nor difficult,” and “somewhat easy” responses; Whiskers represent 95% confidence intervals (CIs)

CONCLUSIONS

- GLP-1 type and instruction clarity were the strongest predictors of persistence, while private access and vomiting were the strongest predictors of discontinuation.
- Unmet need around titration instruction support was a positive predictor of persistence - potentially reflecting a higher need for support among current GLP-1 users and underscoring the importance of clear guidance.
- Our findings identify titration experience and treatment guidance as potentially modifiable drivers of persistence and highlight the need to further explore the role of socioeconomic disparities in GLP-1 treatment outcomes.
- Linking EHR data with PREMs enabled detailed characterisation of the GLP-1 treatment journey and support needs.

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