Real-World Outcomes and Comparative Effectiveness of Tirzepatide, Semaglutide, and GLP-1 Therapy Switching in 40.712 People With Obesity in a Pan-European Single-Provider Digital Care Model (PO4.202)

Oliver Willacy[1], **Felix Wittström[1]**, Oleg Ivanytskyi[1], Elin Skoglund[1], David Buchebner[1], Kristofer Ringner[1], Anna Sommerfeld[1], Martin Carlsson[1,2]

1. Yazen Health AB, Malmö, Sweden
2. Department of Medicine and Optometry, eHealth Institute, Linnaeus University, Kalmar, Sweden

Substantial and sustained weight loss in >40,000 patients treated with GLP-1-based pharmacotherapy at approximately half the maximum trial doses within a comprehensive digital obesity care model

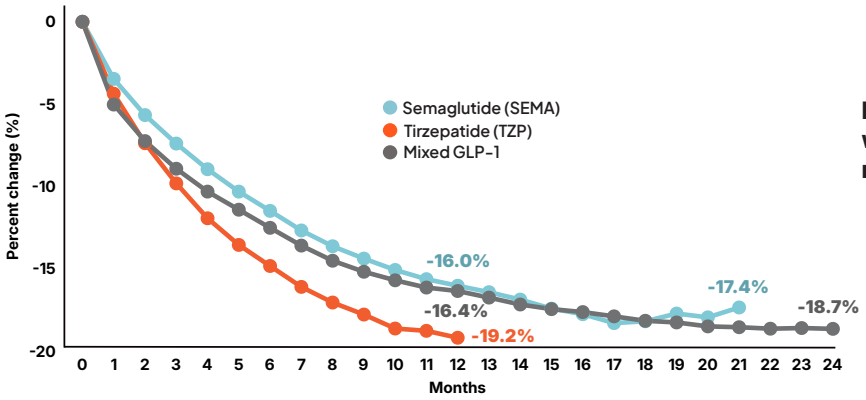
Weight loss was maintained up to 24 months, and 57% of patients were still in treatment at that time, in contrast to results from other real-world studies.

Yazen Health is a licensed Swedish healthcare provider offering a multidisciplinary digital care model for people with obesity.

Study Design and Population

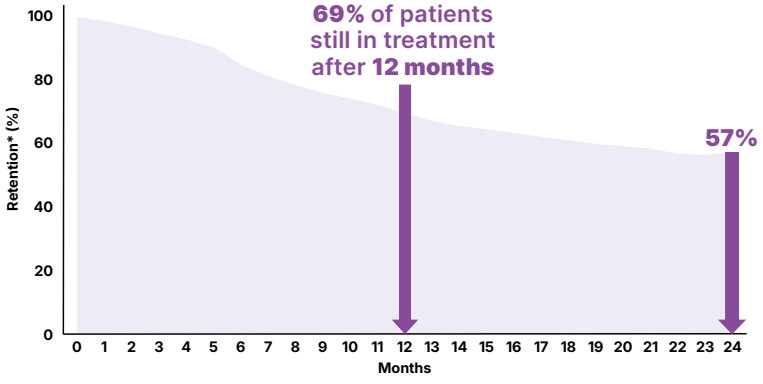
- Retrospective cohort study
- **40.712** patients from Sweden, Norway, Denmark, UK, The Netherlands, Germany & Spain
- 75% women
- BMI inclusion: 30 kg/m² or ≥ 27 kg/m² including comorbidity
- Mean BMI: 33.2 (SD 4.86)
- Mean age: 45.9 (SD 11.74)

Substantial and sustained weight loss with different GLP-1 agents



Mean doses at 12 months, were below 50% of the maximum recommended dose

69% of patients were still in treatment after 12 months, in contrast to 25–32% reported in other real-world settings[1-3],and **more than half at 24 months**



*Retention was defined as the proportion of participants remaining in treatment after n months

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INTRODUCTION

Tirzepatide (TZP) and semaglutide (SEMA) are approved for the treatment of obesity, with randomised trials demonstrating up to 22% and 18% weight loss at maximal doses, respectively. However, large-scale real-world studies evaluating these agents within comprehensive care models combining pharmacotherapy with lifestyle intervention are limited. **Yazen Health is a licensed Swedish healthcare provider offering a multidisciplinary digital care model for people with obesity** in Sweden, Denmark, Norway, Germany, UK, Spain and The Netherlands.

METHODS

In this retrospective cohort study, we followed individuals with obesity (BMI ≥30 kg/m²) or overweight (BMI ≥27 kg/m² with comorbidities) who initiated treatment between January 2024 and January 2026. Participants were categorised into three cohorts based on medication exposure: TZP, subcutaneous SEMA, or a mixed GLP-1 cohort. Individuals who switched between TZP and SEMA or initiated other GLP-1–based therapies were classified into the mixed GLP-1 cohort from the month of change onward. Outcomes were analysed monthly until cohort size declined below 100 individuals. Retention was defined as the proportion of participants remaining in treatment after n months. Outcomes were assessed on treatment without imputation after discontinuation laboratory outcomes were compared between baseline and 7 months. Continuous variables were reported as mean (SD). Group differences were assessed using ANOVA with Tukey's HSD. Analyses were unadjusted.

RESULTS

40.712 individuals started treatment, and retention was 69.1% at 12 months and 56.9% at 24 months. At baseline, 75% were female, mean age was 45.9 years, and mean BMI was 33.2 kg/m². At 12 months, mean doses of both drugs were below 50% of the maximum recommended dose. At 12 months, mean percent body weight reduction was greater with TZP (−19.2%, SD 7.3) compared with SEMA (−16.0%, SD 7.2; p<0.001). Weight loss in the mixed GLP-1 cohort was −16.4% (SD 7.1), significantly lower than TZP (p<0.001) but not different from SEMA (p=0.24). Mean waist circumference reduction at 12 months was 16.3 cm (SD 9.2) with TZP, 14.4 cm (SD 9.0) with SEMA, and 14.8 cm (SD 9.3) in the mixed cohort. At 24 months, available data from the mixed GLP-1 cohort showed a mean weight loss of 18.7% (SD 7.7) and waist circumference reduction of 17.7 cm (SD 9.9). At 7 months, mean HbA1c decreased by −3.53 mmol/mol (SD 2.95), −3.10 mmol/mol (SD 2.86), and −3.15 mmol/mol (SD 2.99) in the TZP, SEMA, and mixed GLP-1 cohorts, respectively. Mean triglycerides decreased by −0.40 mmol/L (SD 0.66), −0.35 mmol/L (SD 0.82), and −0.34 mmol/L (SD 1.34).

CONCLUSIONS

In this large retrospective cohort study, we demonstrate **substantial and sustained weight loss with different GLP-1 agents, with less than half of the maximum doses used in clinical trials**. **Weight loss was maintained up to 24 months, and more than half of participants were at that time still on treatment**. To our knowledge, this represents one of the largest retrospective studies evaluating GLP-1–based pharmacotherapy within a comprehensive digital obesity care model.

Conflict of Interest: Martin Carlsson is a co-founder and employee of Yazen Health. All other authors are employees of Yazen Health.
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