DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF INDIVIDUALS INITIATING GLP-1 AGONISTS FOR OBESITY: A CLAIMS DATABASE ANALYSIS IN THE US

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#RWD80

CONCLUSIONS

In this large US all-payer claims analysis, individuals initiating semaglutide or tirzepatide for obesity had broadly similar demographic and baseline clinical profiles, with both cohorts primarily composed of middle-aged female patients and only 1 in 3 reporting other Charlson comorbidities.

Modest differences were observed between cohorts: tirzepatide initiators had higher commercial insurance representation, slightly longer time from obesity diagnosis to treatment initiation, and greater uptake in 2025. On the other hand, semaglutide initiators had higher Medicaid representation and slightly higher prevalence of hypertension and dyslipidemia.

These descriptive findings provide real-world context on patient characteristics, payer mix, comorbidity burden, and treatment initiation patterns among newer GLP-1 initiators & support the need for future research to examine differences in clinical outcomes, treatment persistence, sequencing, switching and health resource utilization in usual care settings.

IN PLAIN LANGUAGE

This study used a large US insurance claims database to describe people with obesity who started semaglutide or tirzepatide and had no prior diabetes or glucose-lowering medication use.

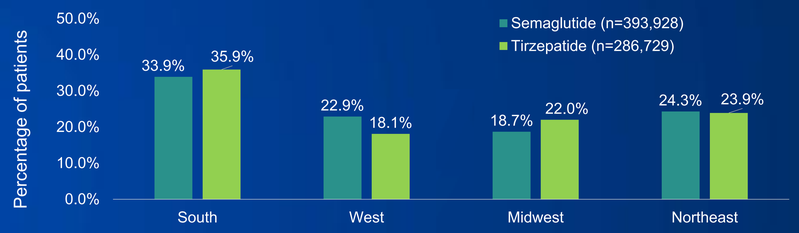
People starting semaglutide and tirzepatide looked similar overall. Most were around 48 years old, female, commercially insured, and had relatively low comorbidity burden based on Charlson comorbidity score.

Tirzepatide users were more often commercially insured and showed greater uptake in 2025, while semaglutide users were more often covered by Medicaid and had slightly higher rates of hypertension and dyslipidemia. These findings help describe how newer obesity medications are being used in real-world practice.

BACKGROUND

- Obesity, a chronic metabolic condition (body mass index of ≥30 kg/m2) imposes a substantial clinical burden and is associated with increased risk of hypertension, dyslipidemia, obstructive sleep apnea, cardiovascular disease, type 2 diabetes, and certain cancers.[1-4]
- Newer glucagon-like peptide-1 (GLP-1) receptor agonists such as semaglutide and tirzepatide that are approved for chronic weight management have demonstrated substantial weight reduction in clinical trials.[5,6] However, real-world evidence describing the demographic and clinical characteristics of individuals initiating these newer therapies in usual care settings are limited.
- Understanding similarities and differences between semaglutide and tirzepatide initiators may help contextualize the profile of patients receiving different GLP-1 agonists.
- To objective of this study was to compare demographic characteristics, insurance type, baseline clinical characteristics, obesity-related comorbidities, and prescriber specialties among semaglutide or tirzepatide initiators for obesity in a large US all-payer claims database.

FIGURE 2: DISTRIBUTION BY REGION*



Note: Region was unknown for approximately 0.2% of semaglutide initiators and 0.1% of tirzepatide initiators.

FIGURE 3: DISTRIBUTION BY PAYOR TYPE

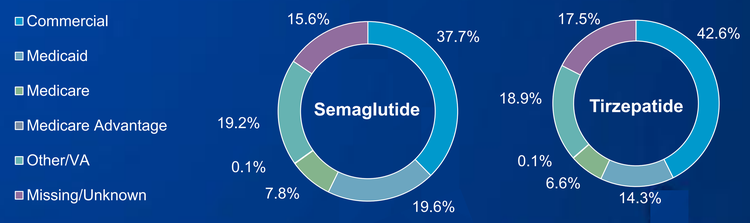
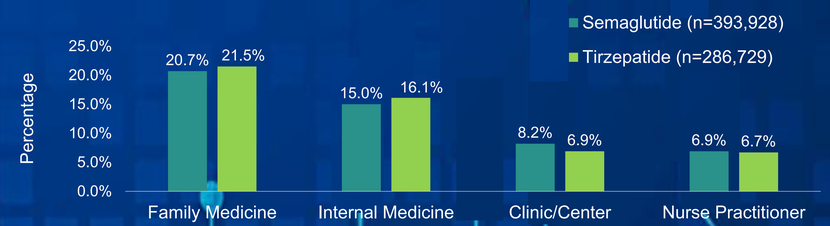


FIGURE 4: DISTRIBUTION BY PHYSICIAN TYPE

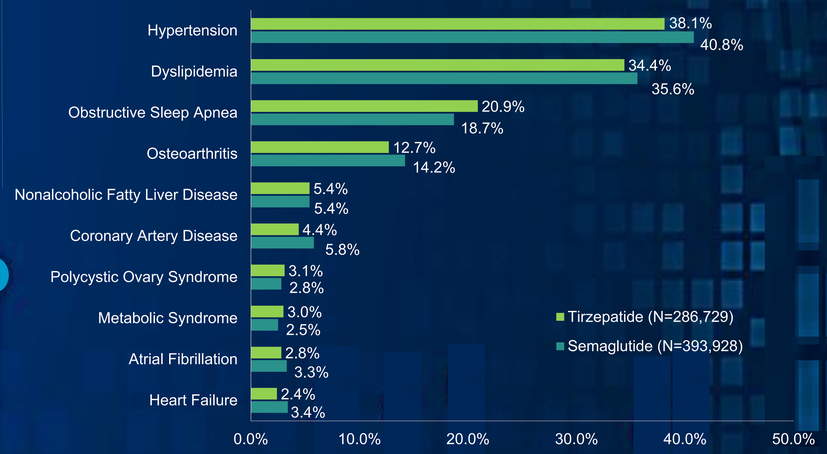


Note: Physician specialty was evaluated closest to the index date. For clarity, only the top four categories are presented out of a total of 163 specialties identified.

METHODS AND STUDY DESIGN

Design and data source	Retrospective descriptive claims analysis using the Anlitiks All Payor Claims Database.
Study period	From 11/01/2022 to 09/30/2025.
Treatment initiation period	Individuals initiating semaglutide or tirzepatide from 11/01/2023 to 09/30/2025.
Eligible population	Individuals with evidence of ICD-10-CM diagnosis claims for obesity or BMI during the study period.
Index date	The first observed medical or pharmacy claim for semaglutide or tirzepatide during the treatment initiation period.
Key exclusions	Individuals with evidence of diabetes, prior GLP-1 receptor agonist use, or other glucose-lowering medication use during the 12-month pre-index period.
Baseline measures	Age, sex, and geographic region at index Charlson comorbidity index, obesity-related comorbidities during pre-index Time from obesity diagnosis to treatment initiation Payor type and prescriber specialty evaluated closest to the index.
Analysis	Descriptive statistics were reported as n (%) for categorical variables and mean (SD).

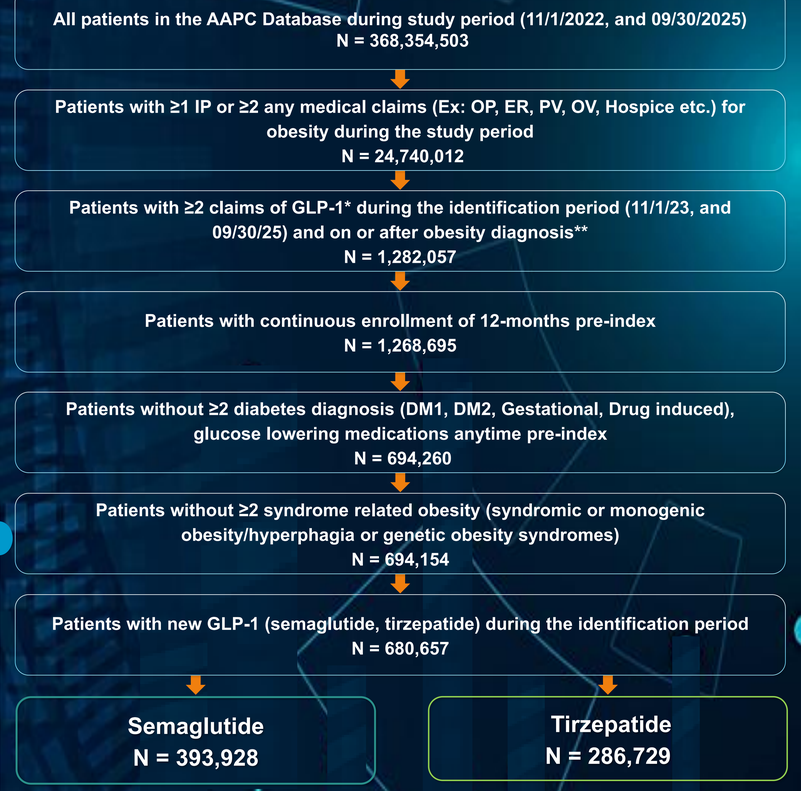
FIGURE 5: OBESITY-RELATED CONDITIONS



RESULTS

- Of the 680,657 eligible individuals, 393,928 (57.9%) initiated semaglutide and 286,729 (42.1%) initiated tirzepatide (Figure 1).
- Mean (SD) age was approximately 48.1 (14.5) vs 48.5 (13.5) years, and nearly three-fourths of initiators were female (73.5% vs 71.9%) among semaglutide and tirzepatide initiators, respectively.
- Region and payor-type distributions are reported in Figures 2 and 3, respectively. Overall, nearly 2 in 3 patients reported no other Charlson comorbidities in both groups.
- Prescribing patterns by specialty were similar in both groups, with family/internal medicine (35.7% vs 37.6%) providers representing the most common prescriber type, followed by nurse practitioners (8.2% vs 6.9%) and physician assistants (6.9% vs 6.7%) (Figure 4).
- Semaglutide-initiators reported slightly higher hypertension and dyslipidemia rates, while tirzepatide-initiators had slightly higher obstructive sleep apnea rates (Figure 5).

FIGURE 1: STUDY ATTRITION



Abbreviations: AAPC, Anlitiks All Payor Claims; DM, Diabetes Mellitus; ER, Emergency Room; GLP-1, Glucagon-like Peptide-1; OP, Outpatient; OV, Office Visits; PV, Professional Visits; *Semaglutide, Tirzepatide; ** First initiation of GLP-1 is considered as index.

REFERENCES

1. Bray GA, et al. Obes Rev. 2017;18:715-723 | 2. Powell-Wiley TM, et al. Circulation. 2021;143:e984-e1010 | 3. Tai JE, et al. Clin Obes. 2024;14:e12651 | 4. Lauby-Secretan B, et al. N Engl J Med. 2016;375:794-798 | 5. Wilding JPH, et al. N Engl J Med. 2021;384:989-1002 | 6. Jastreboff AM, et al. N Engl J Med. 2022;387:205-2

DISCLOSURES

No financial support was received to conduct this analysis. The study was conducted using Anlitiks proprietary software - Rapid Analyzer

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