Poster
EPH113

Characteristics of Patients Initiating Wegovy for Cardiovascular Risk Reduction in a Medicare Population

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Background and Rationale

- Glucagon-like Peptide-1 (GLP-1) Receptor Agonists (RAs) have been approved for Type 2 diabetes (T2D) and obesity.
- More recently, in March 2024, Wegovy (semaglutide) became the first GLP-1 RA approved for cardiovascular risk reduction.
- Medicare Part D is prohibited from covering Wegovy for weight-loss but allows coverage for cardiovascular risk reduction.
- Patients initiating Wegovy for cardiovascular risk reduction have not been well characterized in the Medicare 100% Fee-for-Service (FFS) population.

Objective: to describe clinical characteristics, treatment patterns, and time to MI among Wegovy initiators in the US Medicare 100% FFS population.

Methods

Study Design

- We conducted a retrospective observational cohort study of patients initiating Wegovy using the 100% Medicare FFS claims database.
- **Data Source**: This study used data from the 100% Medicare FFS database and pharmacy data. The Medicare FFS is a traditional fee-for-service health plan with two parts: Part A [Hospital Insurance] and Part B [Medical Insurance]). Part B insurance contains information related to inpatient, outpatient, and office visits.

Eligibility Criteria

- All patients who initiated Wegovy from March 01, 2024–October 31, 2024.
- At least 18 years of age at index date.
- At least 6 months of continuous health plan and pharmacy enrollment (Part A, Part, B, & Part D) prior to the index date.
- A subset of patients initiating Wegovy between March 01 – May 31, 2024 was used for outcomes analysis to allow for the opportunity of ≥5 months of follow-up.

Outcomes

- Myocardial infarction (MI), defined as the presence of ICD-10-CM code of I21.XX for acute myocardial infarction in the follow-up period.
- Discontinuation was defined as a gap of >90 days between one claim/pharmacy fill date plus days supply and the subsequent fill date

Analysis

- **Index date**: date of Wegovy initiation within study period.
- **Baseline and clinical characteristics** within 6 months prior to index date were described.
- **Utilization** was described by month.
- **MI**: follow-up time was defined as time from index date (Wegovy initiation) to earliest of MI (event), or date of death, end of enrollment, switching to another GLP-1 RA, 90 days following discontinuation of Wegovy, or end of study period (censoring criteria).
- Analysis presented by overweight/obesity status at baseline (yes/no).

Key Findings

- Median age of patients initiating Wegovy was 70 (IQR: 66-74) and more than half were female (60.1%). 84.7% of patients were White (Table 1).
- The majority of Wegovy patients were obese/overweight (79.6%), and had prior cardiovascular disease (54.9%). Wegovy patients had lower T2D (13.3%) in the baseline period compared to Medicare patients initiating other GLP-1 RAs (87.8%) (Figure 2) (*poster EPH74, ISPOR 2025*).
- Monthly Wegovy utilization increased monthly in the Medicare population steadily through May 2024 (Figure 3).
- Majority of patients (95.3%) initiating Wegovy did not switch to other GLP-1 RAs (Figure 4). Among switchers (N=656), switching to other GLP-1 RAs included tirzepatide (57%) and other semaglutide (43%).
- Among patients initiating Wegovy within the first 3 month of its approval for CV risk reduction (N=3,521), the cumulative incidence of MI at 6 months was 2.6% (95% CI: 2.1-3.2%) (Figure 5).
- Cumulative incidence of MI at 6 months was similar among patients who were and were not obesity/overweight status in the baseline period (yes/no) [Obese/overweight: 2.6% (2.1-3.3%), not obese/overweight: 2.4% (1.5-3.8%)] (Figure 6).

Limitations

- The study was descriptive and does not establish causal relationships between Wegovy use and cardiovascular outcomes.
- The study population was limited to Medicare FFS beneficiaries and may not be representative of other populations (e.g., younger patients, Medicare Advantage).
- Cardiovascular outcomes were identified using administrative claims data, which may be subject to coding inaccuracies.
- Due to the recent approval of Wegovy for cardiovascular risk reduction, follow-up time was relatively short and longer-term outcomes could not be assessed.

Why is this Research Important

- Early adopters of Wegovy were mostly older adults with existing cardiovascular risks like heart disease, high blood pressure, and high cholesterol.
- Wegovy use steadily increased each month between March and May 2024, as more patients started the medication after it became available for heart protection.
- After starting Wegovy very few people (less than 5%) switched to another medication, and patients with and without obesity at baseline had similar MI rates.
- The cumulative incidence of MI observed in this Medicare cohort is consistent with rates reported in real-world high-risk populations and reflects the advanced age and comorbidity burden of this group.

Results

Figure 1. Attrition Diagram for Wegovy Patients in 100% Medicare Fee-for-Service (FFS) Population

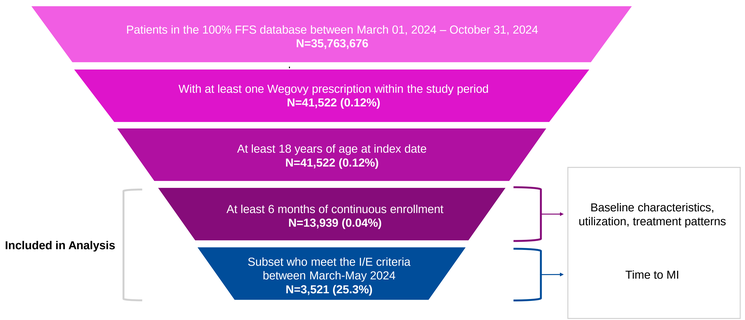
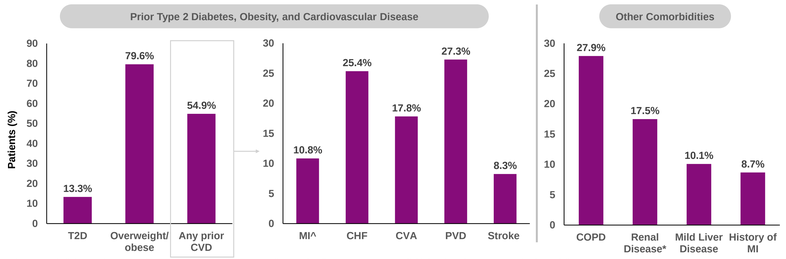


Table 1. Baseline Demographic and Clinical Characteristics

	All Wegovy initiators within study period N=13,939	Subset of Wegovy initiators between March–May 2024 N=3,521
Age at Wegovy initiation (years)		
Mean (STD)	68.6 (9.61)	68.6 (9.29)
Median (Q1-Q3)	70 (66-74)	70 (66-74)
Sex (n, %)		
Male	5,556 (39.86%)	1,360 (38.63%)
Female	8,383 (60.14%)	2,161 (61.37%)
Race/ethnicity (n, %)		
White	11,807 (84.70%)	2,972 (84.41%)
Black	875 (6.28%)	221 (6.28%)
Asian	107 (0.77%)	27 (0.77%)
Hispanic	527 (3.78%)	126 (3.58%)
Other/Unknown	623 (4.47%)	175 (4.97%)
Region (n, %)		
Midwest	2,587 (18.56%)	658 (18.69%)
Northeast	4,344 (31.16%)	1,183 (33.60%)
South	4,246 (30.46%)	949 (26.95%)
West	2,762 (19.81%)	731 (20.76%)
Specialty (n, %)		
Primary care physician	6,950 (49.86%)	1,804 (51.24%)
Nurse practitioner	2,642 (18.95%)	612 (17.38%)
Endocrinologist	693 (4.97%)	187 (5.31%)
Other	3,589 (25.75%)	910 (25.84%)
Unknown	65 (0.47%)	8 (0.23%)
Duration of Wegovy Use (days)		
Mean (STD)	102.8 (58.7)	177.3 (23.7)
Median (Q1-Q3)	102 (53-151)	178 (165-192)
Min, Max	1, 235	2, 235

Comorbidities are identified within the 6-month baseline period. Overweight or obesity is derived using ICD-10-CM diagnosis codes. Specialty of the prescribing provider for the index drug is reported. STD = standard deviation; Q1 = quartile 1; Q3 = quartile 3.

Figure 2. Baseline Comorbidities



T2D = type 2 diabetes; CVA = cerebrovascular disease; CVD = cardiovascular disease; MI = myocardial infarction; CHF = congestive heart failure; PVD = peripheral vascular disease; COPD = chronic obstructive pulmonary disease. ^MI includes acute MI (3.9%) and history of MI (8.7%). *Moderate to severe. Baseline characteristics within the 6 months prior to index date are reported.

Figure 3. Monthly Uptake of Wegovy in 100% Medicare FFS Population

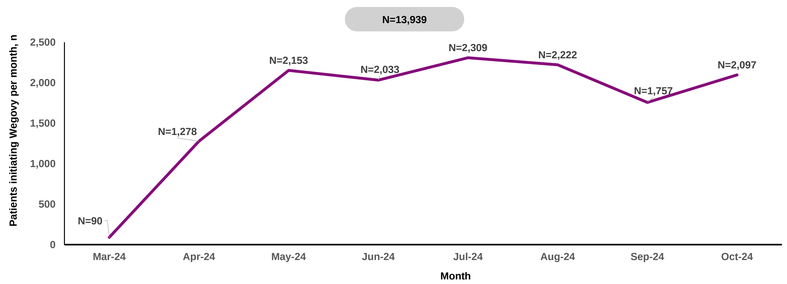


Figure 4. Other GLP-1 RA Use Prior to and After Wegovy Initiation

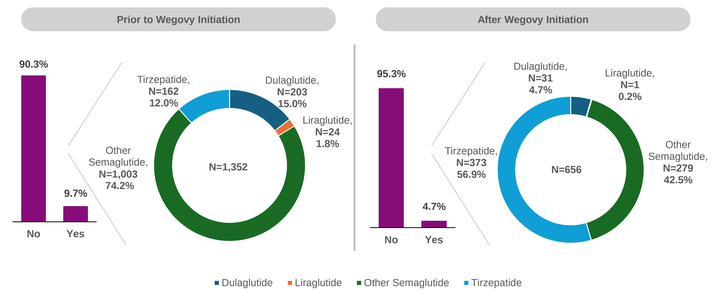


Figure 5. Cumulative Incidence of Myocardial Infarction

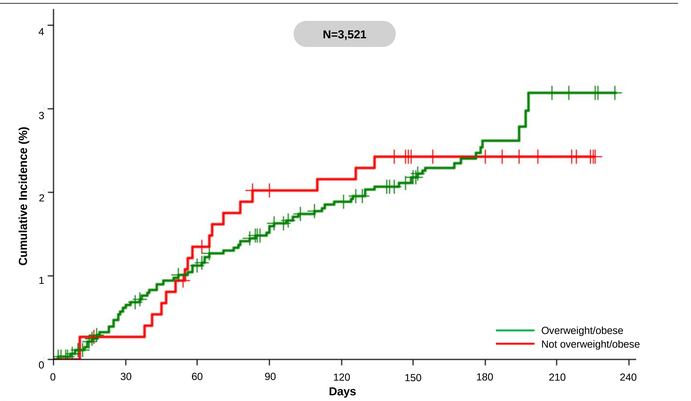
	Events/ Total (%)	90 day Cumulative Incidence (95% CI)	180 day Cumulative Incidence (95% CI)	210 day Cumulative Incidence (95% CI)
Overall	89/3521 (2.5%)	1.7% (1.3-2.2%)	2.6% (2.1-3.2%)	3.0% (2.4-3.8%)

Patients at risk

Overall	3521	3485	3459	3432	3357	3319	1551	203	0

Figure 6. Cumulative Incidence of Myocardial Infarction by Baseline Obesity Status (yes/no)

Overweight/obese in baseline period	Events/ Total (%)	90 day Cumulative Incidence (95% CI)	180 day Cumulative Incidence (95% CI)	210 day Cumulative Incidence (95% CI)
Yes	71/2776 (2.6%)	1.6% (1.2-2.1%)	2.6% (2.1-3.3%)	3.2% (2.4-4.2%)
No	18/745 (2.4%)	2.0% (1.2-3.3%)	2.4% (1.5-3.8%)	2.4% (1.5-3.8%)



Patients at risk

Overweight/ obese	2776	2744	2727	2707	2644	2612	1202	157	0
Not overweight/ obese	745	741	732	725	713	707	349	46	0

E-poster and supplementary materials

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References

References are available upon request to the corresponding author: Shivani@landmarkscience.com

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Disclosures

SA, JW, and DG are employees of or are contracted to Landmark Science, Inc. SV, NA, and PB are employees of Humbi, LLC.