PS1-05-22:Characteristics and Weight Loss Outcomes in Patients with Breast Cancer Prescribed Semaglutide

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Background

Obesity and diabetes are common in patients with breast cancer and have been linked to risk of recurrence and early mortality.[1] The prevalence, timing of initiation, and duration of GLP-1 receptor agonist use has not been well described. We aim to fill this gap with descriptive analyses using real-world community oncology data from an integrated health system.

Methods

- **Setting:** Kaiser Permanente Northern California.
- **Data:** Tumor registry and electronic health record data.
- **Population:** Breast cancer patients who initiated semaglutide or tirzepatide between 2020-2025
- **Analysis:** Descriptive analyses calculating mean weight loss, proportions of clinical characteristics, and rates of continuation.

Clinical characteristics of patients stratified by endocrine therapy

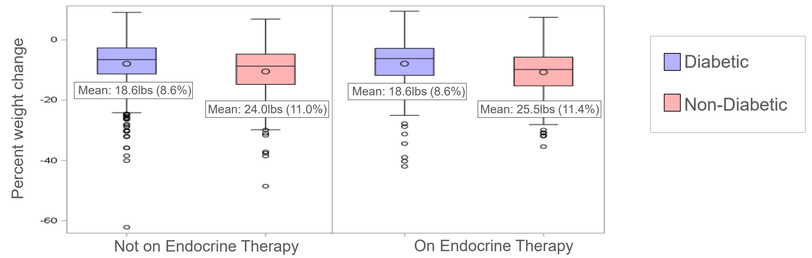
Group	Overall (N = 1753)	Endocrine Therapy (N = 685)	Not on Endocrine Therapy (N = 1,068)
Diabetes – n(%)	1245 (71.0%)	463 (67.6%)	782 (73.2%)
ER Positive – n(%)	1456 (83.1%)	669 (97.7%)	787 (73.7%)
Stage – n(%)			
0	344 (19.6%)	67 (9.8%)	277 (25.9%)
1	836 (47.7%)	445 (65.0%)	391 (36.6%)
2	310 (17.7%)	115 (16.8%)	195 (18.3%)
3	73 (4.2%)	29 (4.2%)	44 (4.1%)
4	7 (0.4%)	5 (0.7%)	2 (0.2%)
Years from Breast Cancer Dx– Mean (SD)	8.9 (7.4)	4.4 (4.5)	11.8 (7.4)
Starting BMI – n(%)			
Normal (18.5-24.9)	44 (2.5%)	11 (1.6%)	33 (3.1%)
Overweight (25-29.9)	225 (12.8%)	82 (12.0%)	143 (13.4%)
Obese Class 1 (30-34.9)	486 (27.7%)	189 (27.6%)	297 (27.8%)
Obese Class 2 (35-39.9)	468 (26.7%)	185 (27.0%)	283 (26.5%)
Obese Class 3 (40+)	491 (28.0%)	210 (30.7%)	281 (26.3%)

Conclusions

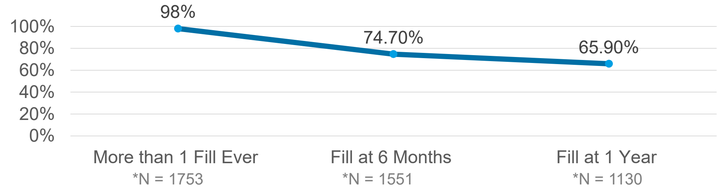
Semaglutide therapy in patients with breast cancer was associated with weight loss regardless of history of endocrine therapy although these effects may be tempered by low continuation rates.[2]

Characterizing semaglutide use in breast cancer patients enables more informed strategies to support long-term weight management in oncologic care.

Mean maximum weight loss in one year stratified by endocrine therapy and diabetes status



Rates of continuation at 6 months and at 1 year



*Accounting for number eligible for fill.

Results

- 1,753 patients with breast cancer history initiated semaglutide in the years 2020-2025.
- Our cohort had a mean age of 63.5 years.
- The racial/ethnic make-up of our cohort included 12.4% Asian, 10.3% Black, 20.1% Hispanic, and 49.8% White
- Of these individuals the **majority had diabetes** and started therapy after breast cancer diagnosis.
- **Weight loss was similar among those with or without active endocrine therapy.**
- **One-third of participants discontinued GLP-1 use at 1 year**, highlighting potential challenges in maintaining long-term therapy.

Future Directions

- Investigate the impact of GLP-1s on the risk of breast cancer recurrence and mortality.
- Identify reasons for high discontinuation rates.
- Explore the sociodemographic inequities in the accessibility and usage of these medications.

References

1. Kang C, LeRoith D, Gallagher EJ. Diabetes, Obesity, and Breast Cancer. Endocrinology. 2018 Nov 1;159(11):3801-3812. doi: 10.1210/en.2018-00574. PMID: 30215698; PMCID: PMC6202853.

2. Inoue K, Decker SRR, Shi I, et al. Discontinuation of Semaglutide Among Older Adults With Diabetes in the US and Japan. JAMA Cardiol. Published online September 24, 2025. doi:10.1001/jamacardio.2025.3109

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