

Title: Adherence to GLP-1 Receptor Agonists and Associated Weight Loss in U.S. Veterans

Background: Type 2 diabetes mellitus (T2DM) and obesity are two of the most significant public health challenges worldwide and are frequently associated with cardiovascular disease and other comorbidities. Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) have demonstrated improvements in glycemic control and weight reduction. However, there is limited data that evaluates real-world adherence and weight outcomes among U.S. veterans within the Veterans Affairs (VA) Healthcare system. The purpose of this study was to evaluate the adherence to GLP-1 RA therapy and to assess how adherence correlates with weight loss in veterans.

Methods: We performed a retrospective analysis using deidentified patient data that was obtained from the Marion VA Healthcare system. Patients were included in our analysis if they were prescribed a GLP-1 RA, had a documented baseline weight prior to GLP-1 RA initiation, and had at least one follow-up weight measured. Medication adherence was calculated using the Medication Possession Ratio (MPR), where adherence was defined as an $MPR \geq 0.80$. Weight change was calculated as the difference between a patient's baseline and most recent follow-up weight.

Results: A total of 101 patients met our inclusion criteria. The mean MPR was 1.16 with 98 patients who were classified as adherent. Our study showed a mean weight loss of 24.7 pounds, which corresponded to an 8.7% reduction of a patient's baseline body weight.

Conclusion: The findings of our study demonstrate high medication adherence and clinically significant weight loss among veterans receiving GLP-1 RA therapy. However, the small number of non-adherent patients limited comparisons between adherence groups. Future studies with larger datasets and a longer follow-up window are needed to further evaluate real-world treatment outcomes and adherence in the veteran population.