RWD73

Real-World Utilisation of Glucagon-Like Peptide-1 Receptor Agonists in US Adults

Karen E. Smoyer,[1] Dave Iwanyckyj,[2] Pablo Racana,[2] and Suki Kandola[3]

[1]Envision Pharma Group, Fairfield, CT, USA; [2]Amplity Health, Langhorne, PA, USA; [3]Envision Pharma Group, London, UK

Background

- Clinical trials of medications containing glucagon-like peptide-1 receptor agonists (GLP-1 RAs) have been shown to be effective for glycaemic control and weight loss, with gastrointestinal effects being the most common adverse events[1-4]
- The US Food and Drug Administration (FDA) has approved 3 GLP-1 RA–containing anti-obesity medications (AOMs) to be used for weight management alongside a reduced-calorie diet and increased physical activity; these AOMs are:
  - GLP-1 RAs semaglutide (WEGOVY®) and liraglutide (SAXENDA®)
  - Dual glucose-dependent insulinotropic peptide (GIP) and GLP-1 RA tirzepatide (ZEPBOUND®)
- In the United States, these AOMs are indicated for persons with a body mass index (BMI) of
  - ≥30 kg/m^2 or
  - 27 kg/m^2 to <30 kg/m^2 (overweight) and at least one weight-related comorbid condition (eg, hypertension, dyslipidaemia, type 2 diabetes mellitus, obstructive sleep apnoea, or cardiovascular disease)
- High demand has led to drug shortages of GLP-1 RA–containing medications[5]

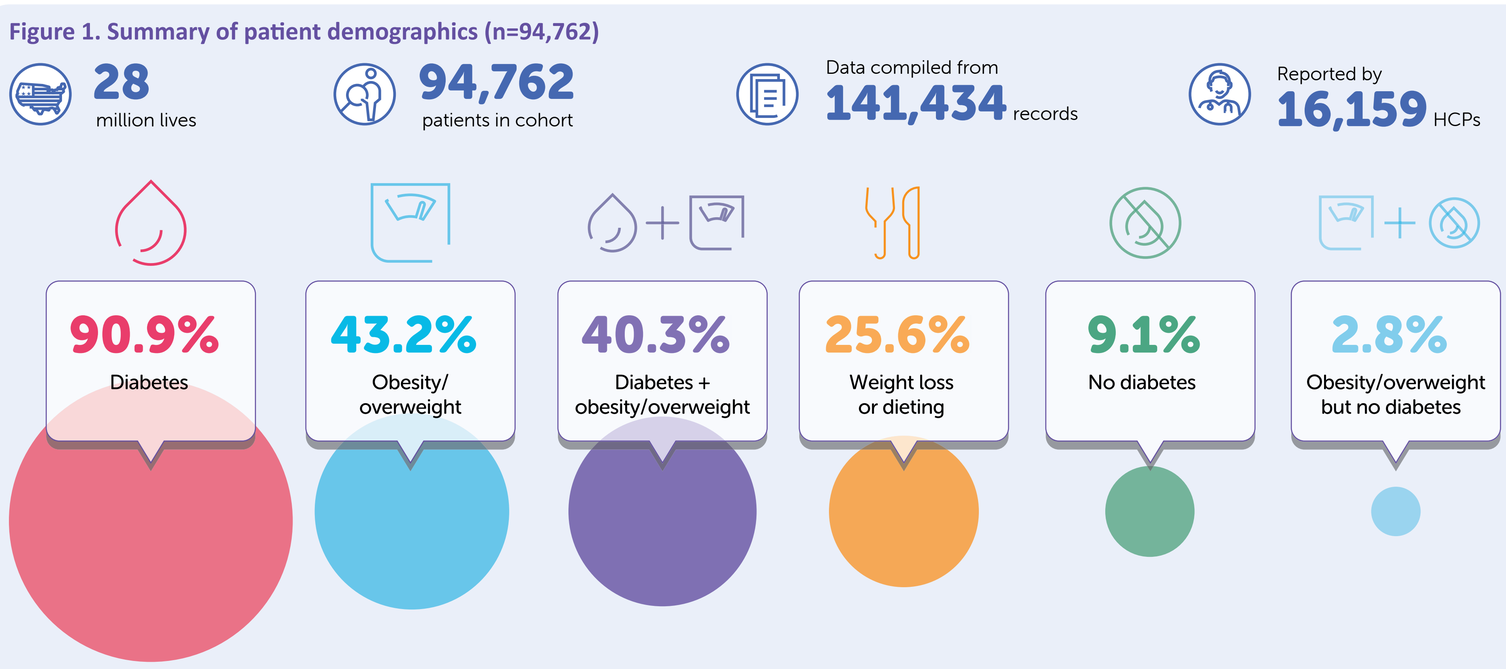
Objective

This research characterises real-world use of GLP-1 RA–containing medications among adults in the United States

Methods

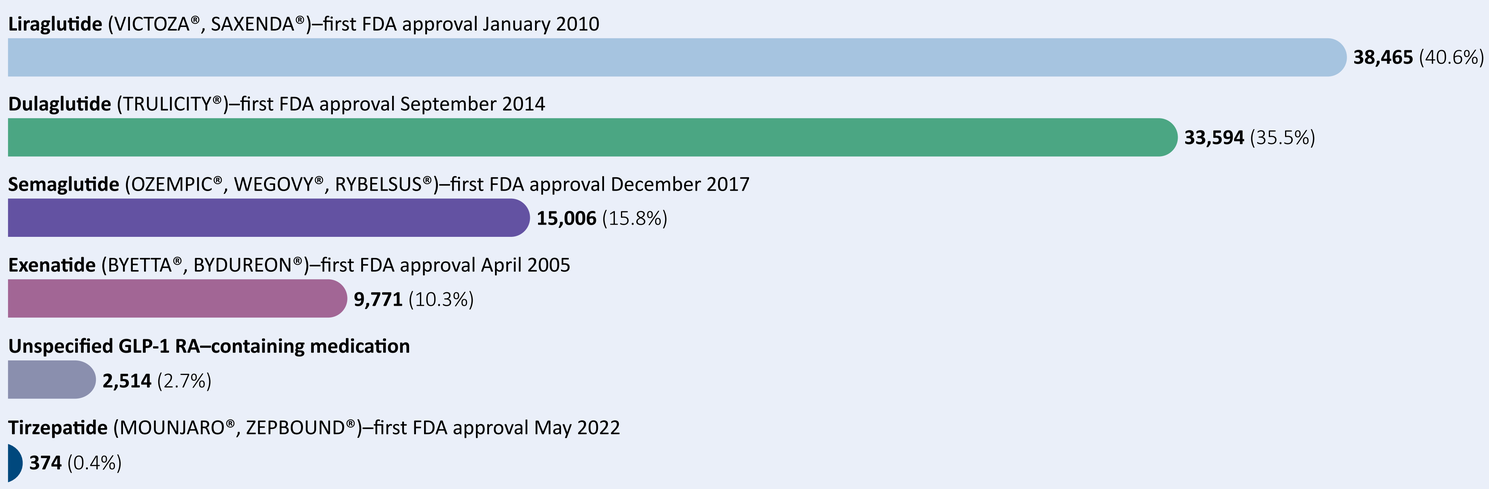
- This retrospective, observational study used the Amplity Insights™ real-world database, soon to be known as AnswerY™. This product incorporates fully compliant, US-based transcribed physician notes from nearly 120,000 healthcare professionals across all 50 states and 2 US territories
- Natural language processing was used to search and analyse the Amplity Insights™/AnswerY™ database and platform
- Records from 1 January 2017 to 30 June 2024 were examined to identify patients who had received a GLP-1 RA–containing medication, including specific agents (identified by a brand or compound name) or the class as a whole
  - Records for insulin-containing combination regimens with a GLP-1 RA, namely, lixisenatide and insulin glargine (SOLIQUA®), were not sufficient for inclusion into the study cohort
    - SOLIQUA® records were excluded from the study
- Patient demographics, comorbidities, type(s) of GLP-1 RA–containing agent received, and whether used for weight loss were compiled, with drug-use data summarised for cohorts with and without diabetes

Figure 1. Summary of patient demographics (n=94,762)



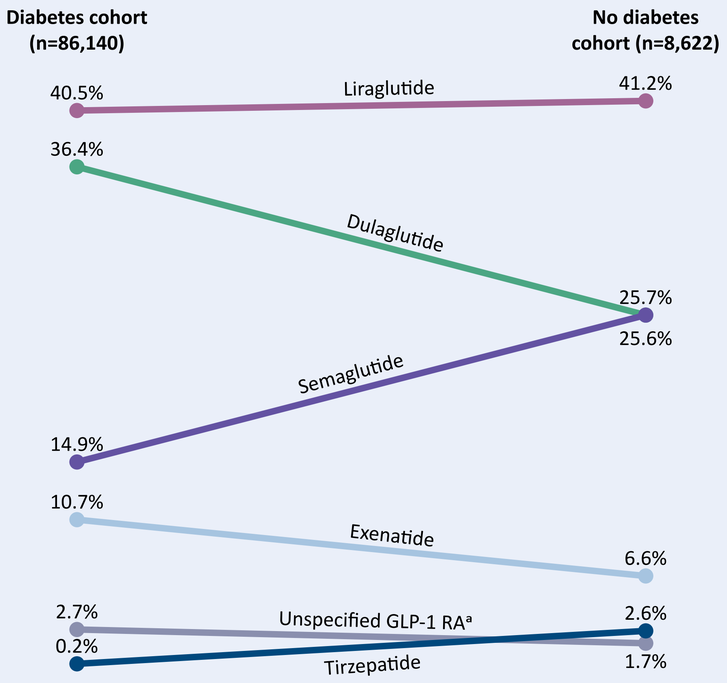
Abbreviation: HCP, healthcare practitioner

Figure 2. GLP-1 RA–containing agent use among 94,762 patients, January 2017 to June 2024



[a]Physician mentions GLP-1 RA medication, but no brand or compound is mentioned in the record
Abbreviations: FDA, US Food and Drug Administration; GLP-1 RA, glucagon-like peptide-1 receptor agonist

Figure 3. GLP-1 RA–containing agent use, diabetes vs nondiabetes cohorts



[a]Physician mentions GLP-1 RA medication, but no brand or compound is stated in the record
Abbreviation: GLP-1 RA, glucagon-like peptide-1 receptor agonist

Results

- Market understanding obtained solely from the Amplity Insights™/AnswerY™ database and platform regarding the identified cohort is provided in **Figure 1**
- As shown in **Figure 2**, liraglutide was used most often (40.6%), followed by dulaglutide (35.5%), semaglutide (15.8%), and exenatide (10.3%)
  - Only 374 (0.4%) patients received tirzepatide
  - Use of a GLP-1 RA–containing agent, without specifying the agent used, was mentioned at least once for 2.7% of patients
- Drug utilisation differences were identified between the diabetes (n=86,140) and nondiabetes (n=8,622) cohorts, notably between semaglutide (14.9% vs 25.6%), dulaglutide (36.4% vs 25.7%), and tirzepatide (0.2% vs 2.6%) (**Figure 3**)
- Of note, for at least part of the data collection period, liraglutide, semaglutide, and tirzepatide have been on the FDA Drug Shortage List,[5] which may have limited use of these agents, particularly for weight loss, due to lack of access

Limitations

- All GLP-1 RA–containing agents were included in this study, including those used for glycaemic control
  - As such, not all patients in this analysis were using these medications as AOMs; indeed more than 90% of patients had diabetes and less than half had a mention of overweight or obesity in their transcribed notes
- Patients obtaining GLP-1 RA–containing AOMs outside of standard healthcare channels (eg, from weight loss clinics, online purchase, or mail order) would not have been included in this analysis unless they told their HCP that they were taking one of these medications and the healthcare practitioner (HCP) included this information in their dictated notes

Conclusions

- In this real-world US cohort, GLP-1 RA–containing medications were overwhelmingly used in patients with diabetes
- GLP-1 RA–containing agent usage patterns differed between the diabetes and nondiabetes cohorts
- Use of these agents exclusively for weight loss was limited, which may be due in part to drug shortages and to restrictions on insurance coverage restrictions for obesity/overweight indications, as US payers have been implementing policies to manage patient access to GLP-1 RAs
- Increased use of GLP-1 RA–containing agents and tirzepatide for weight management in patients with BMI ≥30 kg/m^2 or in patients with BMI ≥27 kg/m^2 and qualifying comorbidities is expected
- Increased availability of AOMs will provide more treatment options for persons living with obesity or overweight

References

1. Cai W, et al. *Front Public Health*. 2024;12:1277113. doi: 10.3389/fpubh.2024.1277113
2. Gao X, et al. *Front Pharmacol*. 2022;13:935823. doi: 10.3389/fphar.2022.935823
3. Iqbal J, et al. *Obes Rev*. 2022;23:e13435. doi: 10.1111/obr.13435
4. Leite A, et al. *Diabetes, Obes Metab*. 2022;24:1676-1680. doi: 10.1111/dom.14707. hal-03805085
5. FDA Drug Shortages. Accessed 14 October 2024. https://www.fda.gov/drugs/drug-safety-and-availability/drug-shortages

Acknowledgments and disclosures
This study was a collaboration between Envision Pharma Group and Amplity Health. Karen E. Smoyer and Suki Kandola are employees and shareholders of Envision Pharma Group. Dave Iwanyckyj and Pablo Racana are employees and shareholders of Amplity Health. The authors would like to thank Collette Placek for editorial support and Márkó Benes for poster design and layout, both of Envision Pharma Group.

Poster presented at ISPOR Europe 2024; 17-20 November; Barcelona, Spain