

Trends in Glucagon-like peptide-1 (GLP-1) Receptor Agonist Prescribing in England: A Data Analysis Using NHS Prescription Episodes Statistics (PES)

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Background

- Glucagon-like peptide-1 (GLP-1) receptor agonists (RA), established in diabetes care, have recently gained prominence in treating obesity.
- Recent data highlight the promising potential of GLP-1 RA in reducing major adverse cardiovascular events (incl. myocardial infarction, stroke, and cardiovascular death) and liver fat content, potentially slowing the progression of metabolic-associated steatotic liver disease (MASLD).¹

Objectives

- This study aimed to assess developments in GLP-1 prescribing in England.

Methods

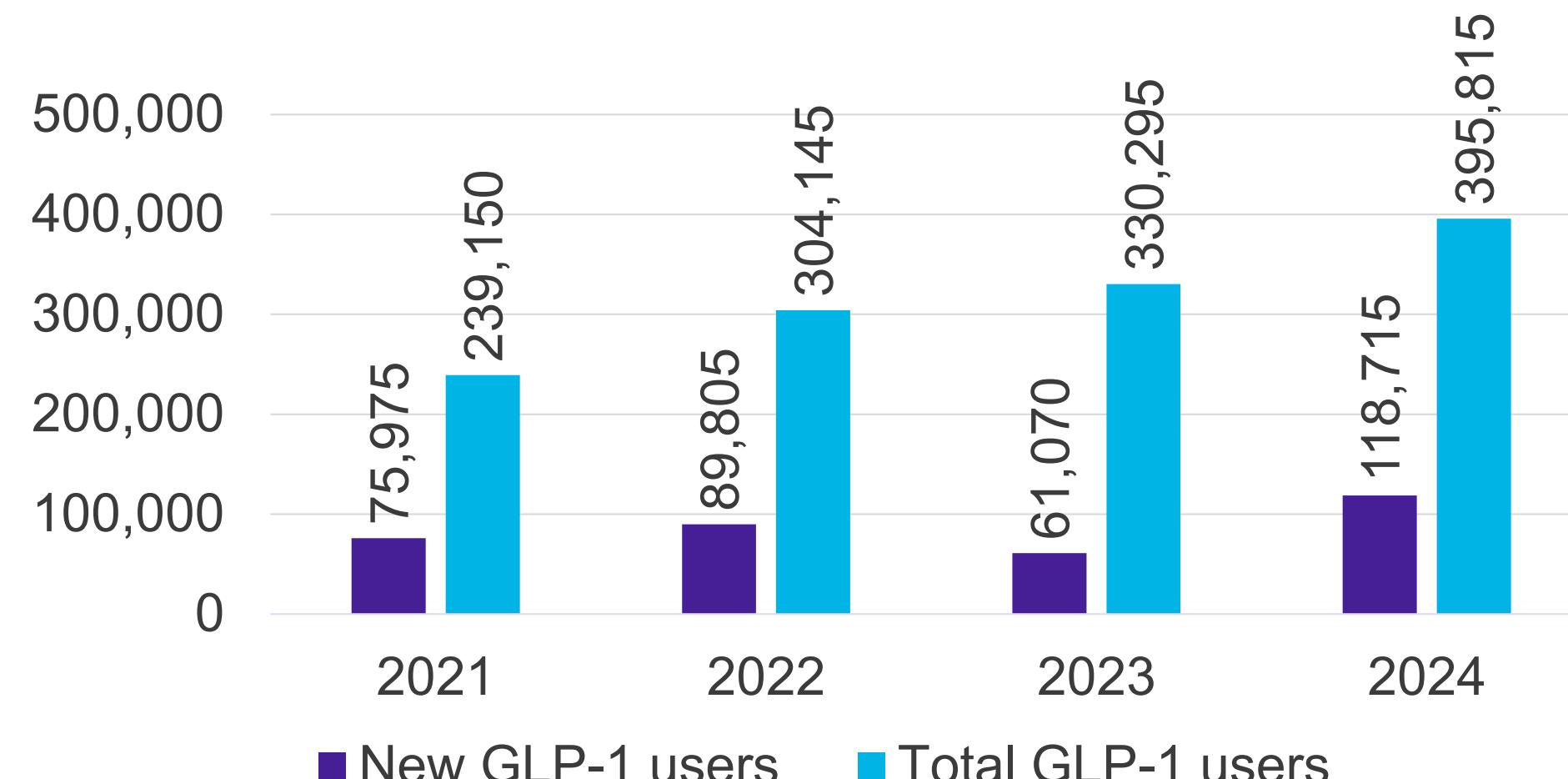
- This retrospective data analysis was based on the Prescription Episodes Statistics (PES) database generated utilizing data submitted to the National Health Service Business Services Authority (NHSBSA).
- It includes current years of primary care prescription data from England, with patient-level demographics, prescription details, product specifics, and prescriber information.
- Adults (≥ 18 years) with at least one GLP-1 receptor agonist prescription (dulaglutide, exenatide, liraglutide, lixisenatide, semaglutide, or trizepatide) from 2021 to 2024 were included.
- Descriptive analysis covered user counts, prescriptions, demographics, GLP-1 type, costs, and comedication.
- New users were identified by a one-year prescription-free period using British National Formulary (BNF) codes.

Results

GLP-1 prescriptions

- A total of 513,315 individuals received GLP-1 prescriptions during the observation period (see Figure 1).
- The number of new users increased annually by 16.0% (from 75,975 in 2021 to 118,715 in 2024), although not consistently.
- The total number of annual users grew by 18.3% (from 239,150 in 2021 to 395,815 in 2024).

Figure 1. Count of annual new and total GLP-1 users between 2021 and 2024



Patient characteristics

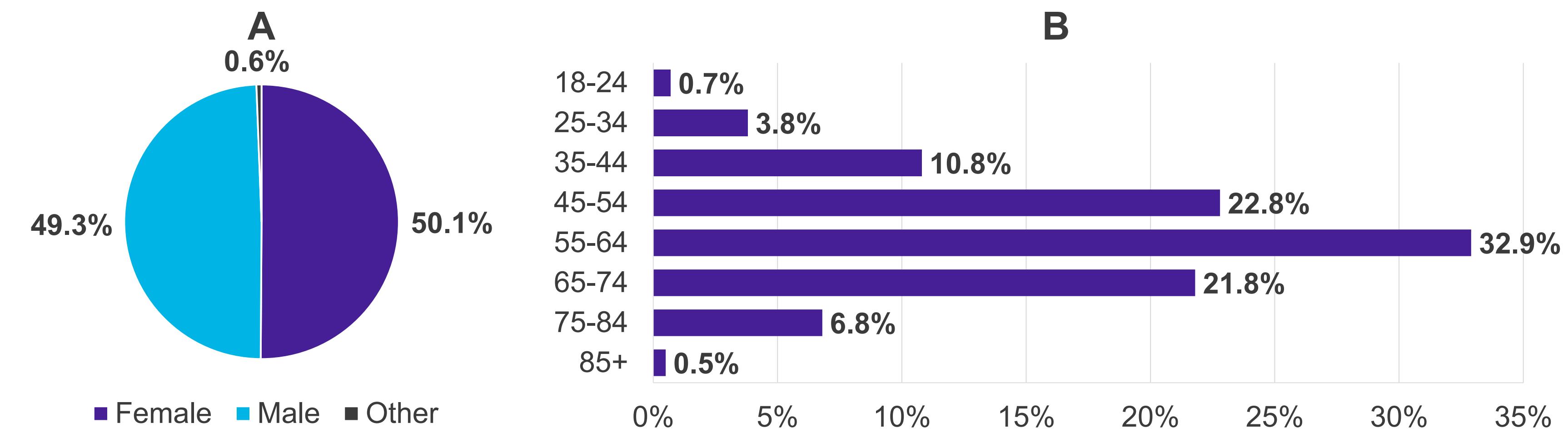
- Sex and age distribution of patients initiating treatment with GLP-1 receptor agonists remained stable.
- There were slightly more women (50.1%) among new users (see Figure 2A). Most initiations aged 55-64 years (see Figure 2B).

References:

¹Arredouani A. GLP-1 receptor agonists, are we witnessing the emergence of a paradigm shift for neuro-cardio-metabolic disorders?. *Pharmacol Ther*. 2025;269:108824.

Results (cont.)

Figure 2. Sex [A] and age [B] distribution of patients initiating treatment with GLP-1 receptor agonists between 2021 and 2024



GLP-1 agents distribution

- From 2021 to 2024 semaglutide use increased to 49.2%, dulaglutide usage declined to 26.9%, liraglutide nearly disappeared from the market (1.5%), and trizepatide reached 20.8% market share by 2024 (see Figure 3).

Costs

- Net ingredient costs (NIC) mirrored prescription trends, growing 17.0% annually (from £184.4 million in 2021 to £295.4 million in 2024) (see Figure 4).
- Semaglutide accounted for the largest share in 2024 (48.4%).

Figure 3. Distribution of GLP-1 agents prescribed between 2021 and 2024

Figure 4. Distribution of GLP-1 agents prescribed between 2021 and 2024

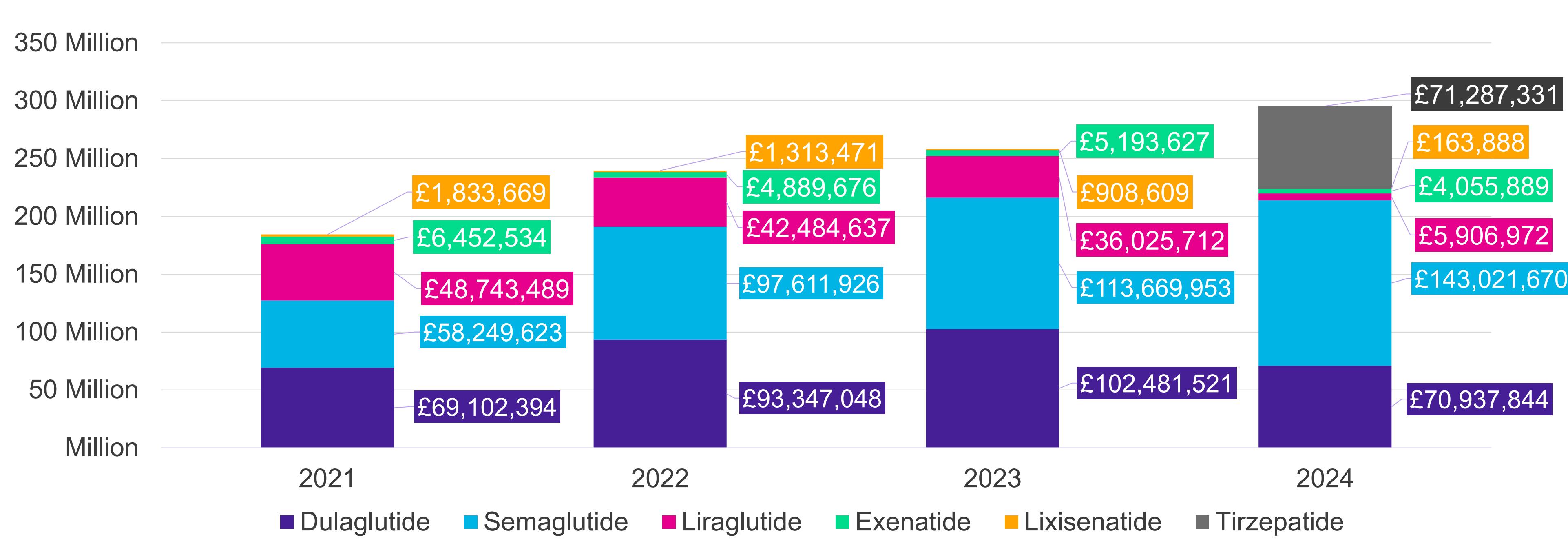
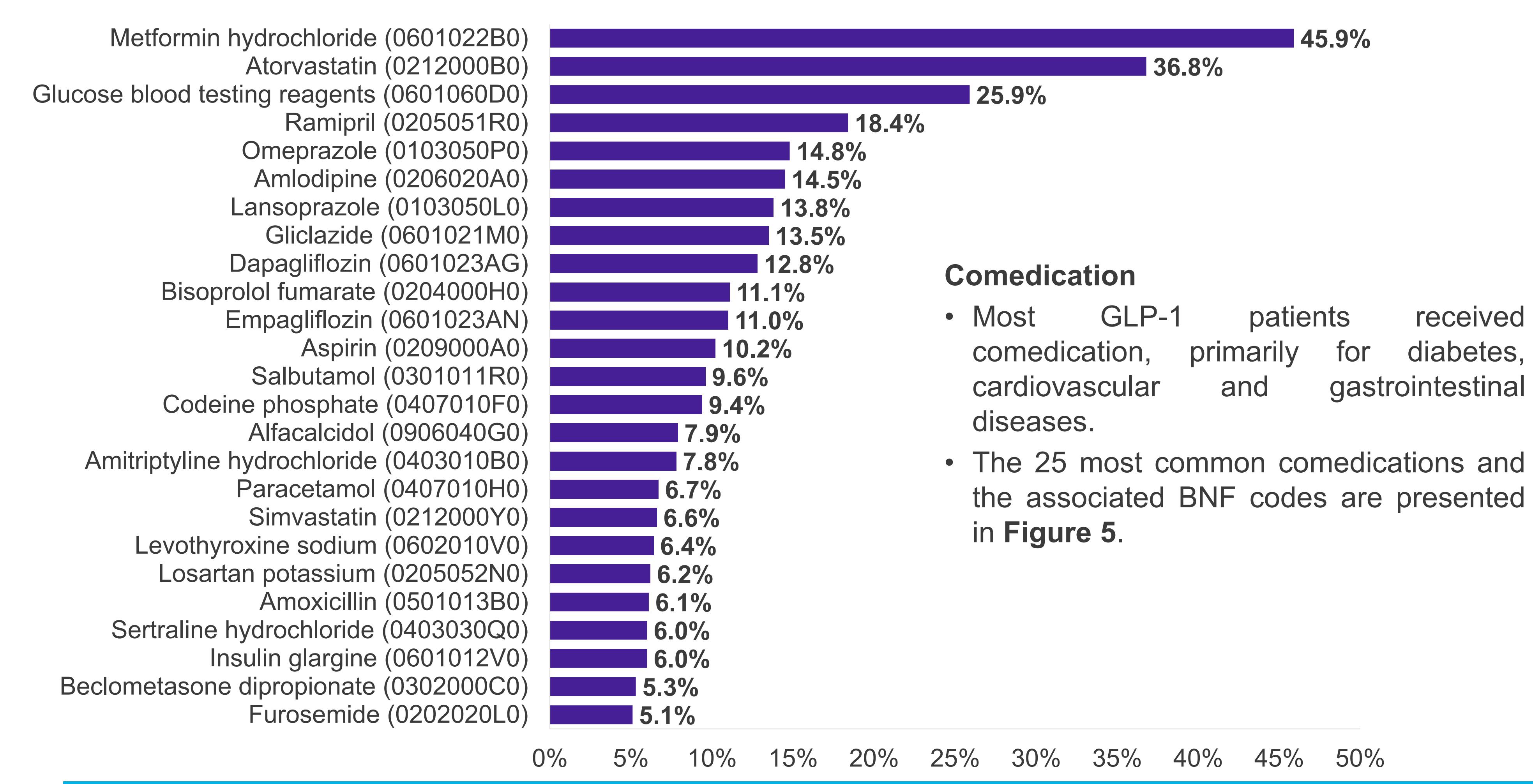


Figure 5. Proportion of GLP-1 users receiving comedication in the years 2021 to 2024



Conclusion

- This analysis highlights significant growth in GLP-1 receptor agonist use and prescribing costs in England.
- Semaglutide has emerged as the dominant agent, with trizepatide showing similar potential, indicating shifting prescribing patterns.
- The findings underscore the growing significance of GLP-1 therapies in managing obesity and diabetes; a trend likely to continue.

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