Real-World Utilization Pattern of GLP-1 Receptor Agonists in German Outpatient Care

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Background & Objective

- Glucagon-like peptide-1 receptor agonists (GLP-1 RAs) have emerged as powerful agents in the treatment of obesity and type 2 diabetes mellitus (T2DM) [1].
- GLP-1 RAs are offering benefits in weight reduction, glycemic control, and potential cardiovascular risk reduction [1,2].
- While their efficacy is well established in clinical trials, real-world evidence from Germany on prescribing patterns and patient characteristics remains limited.

Objective: To characterize prescribing pattern of GLP-1 RAs and describe baseline patient characteristics in routine patient care in Germany.

Methods

- This retrospective, descriptive analysis used data from the Honic data platform, which integrates electronic health records from primary care providers across Germany.
- Inclusion criteria:
  - Adults (≥18 years)
  - At least one GLP-1 RA agent prescription (ATC codes A10BJ and A10BX16) between 2018 and 2024.
- Baseline was defined as the date of the first available prescription.
- Patient demographics at baseline, clinical conditions and Disease Management Program (DMP) participation were assessed using descriptive statistics.
- Clinical conditions were identified from all available data recorded up to the baseline date, based on confirmed diagnoses.

Conclusions

- Utilization of GLP-1 RAs in Germany has increased markedly in recent years.
- GLP-1 RAs are primarily prescribed to patients with type 2 diabetes and/or obesity.
- High DMP enrolment indicates an increasing role of GLP-1 RA therapies in the management of type 2 diabetes.

Outlook:

- These data provide a basis for future research on comparative effectiveness, prescribing trends, side effects, organ-specific outcomes, label expansion, and economic impact of GLP-1 RAs in real-world clinical settings.
- Real-world evidence is essential to complement randomized trials and supports more personalized, data-driven approaches to obesity and diabetes care.

References

1. Drucker, D. J. (2025). "GLP-1-based therapies for diabetes, obesity and beyond." Nature Reviews Drug Discovery. 24:8 24(8).
2. Chen, X., et al. (2024). "Effects of glucagon-like peptide-1 receptor agonists on cardiovascular outcomes in high-risk type 2 diabetes: a systematic review and meta-analysis of randomized controlled trials." Diabetology & Metabolic Syndrome. 16:1 16(1).

Results

Patient characteristics

- 26,756 unique adult patients were prescribed GLP-1 RAs from 2018 until 2024.
- The mean age at first prescription was 60.1 years (SD = 13.4) years with the 60-69 age group representing the largest proportion (Figure 1).
- 51% of all patients were male.
- Most GLP-1 RA users are enrolled in a DMP (58.3%), with the majority in T2D DMP (56.7%; Figure 2).

Figure 1: Age and Gender Distribution

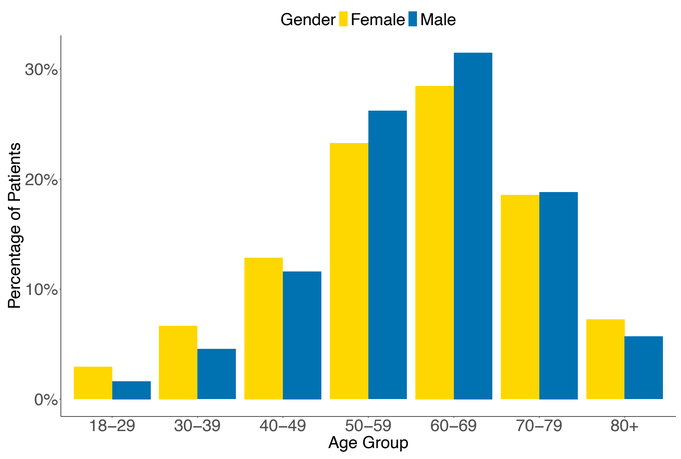
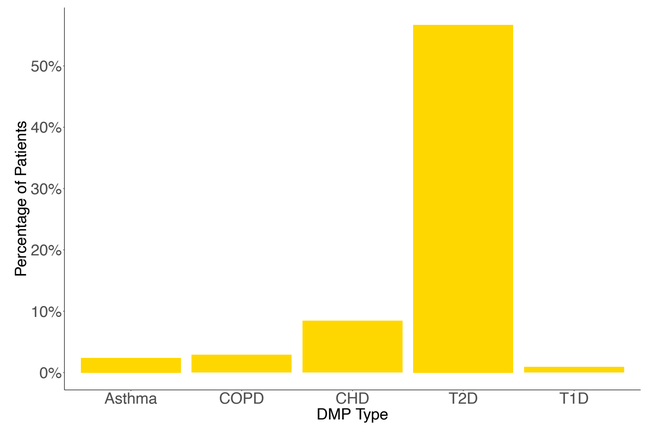


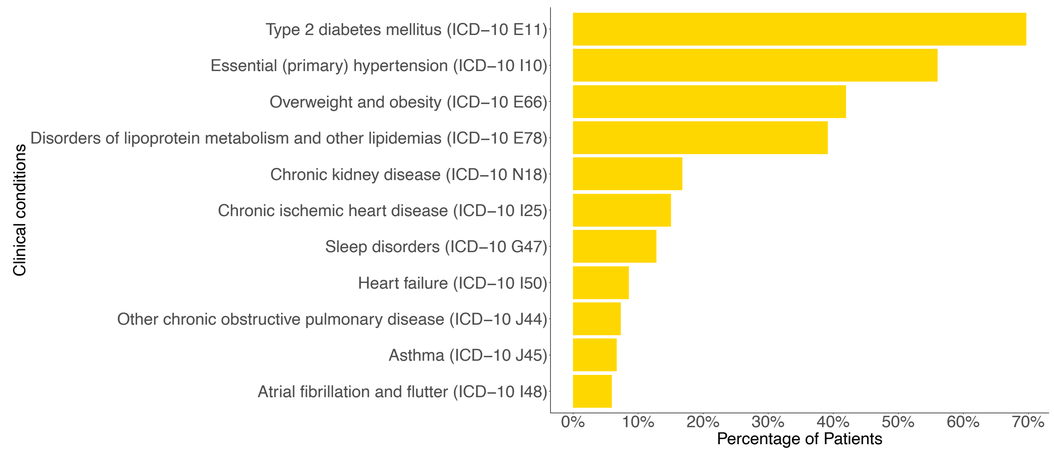
Figure 2: Participation in DMP



Diagnosed conditions

- At baseline, 69.7% of patients had a documented diagnosis of T2D (Figure 3).
- Obesity was documented in 42.0% of patients, and dyslipidemia in 39.2% (Figure 3).
- Cardiovascular comorbidities were common, including hypertension (56.0%), chronic ischemic heart disease (15.1%) and heart failure (8.5%) (Figure 3).

Figure 3: Frequency of Conditions in the Cohort



GLP-1 RA utilization

- Utilization of GLP-1 RAs steadily increased from 2018 to 2024, both in terms of users and prescriptions (Figures 4 & 5).
- Semaglutide was prescribed to the largest number of patients (N = 14,050), followed by dulaglutide (N = 10,245) and tirzepatide (N = 5,644).
- Between 2018 and 2024, the overall number of prescriptions increased from 4,541 to 61,130.

Figure 4: Number of Unique GLP-1 RA Users by Year

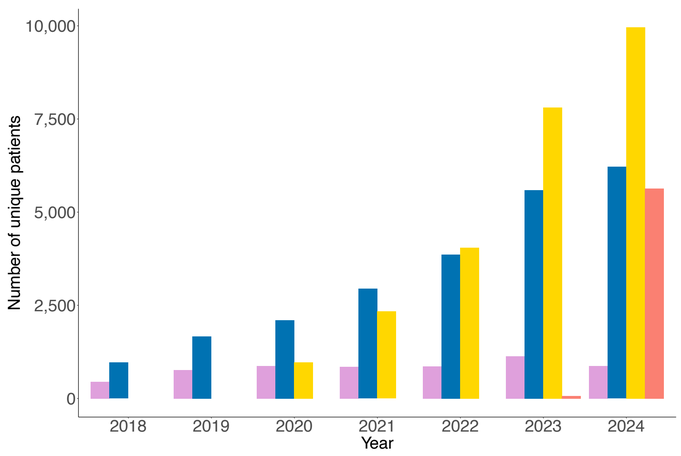
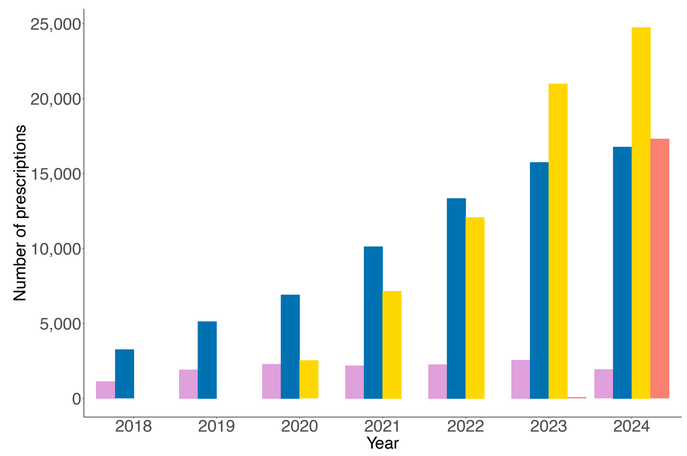


Figure 5: Number of GLP-1 RA Prescriptions by Year



Abbreviations: CHD – Coronary heart disease; COPD – Chronic obstructive pulmonary disease; T1D - type 1 diabetes mellitus; T2D - type 2 diabetes mellitus

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