

Real-World Prescribing Patterns of Glucagon-like Peptide-1 (GLP-1) Receptor Agonists in Germany

Christian Jacob, PhD¹; Dominic Meise, MSc¹; Svitlana Schnaidt, MSc¹; Raeleesha Norris, MPH²; Annika Vivirito, MSc²; Dominik Obermüller, PhD²; Dirk Enders, PhD²; Sebastian Braun, PhD¹

¹Xcenda GmbH, part of Cencora Inc., Hannover, NI, Germany; ²InGef – Institute for Applied Health Research Berlin GmbH, Berlin, BE, Germany

Background

- Since its market introduction, the drug class of glucagon-like peptide-1 (GLP-1) receptor agonists has revolutionized the treatment of obesity.
- Besides weight loss, GLP-1 receptor agonists show compelling evidence of reducing the risk of obesity-related major cardiovascular events such as heart attacks and strokes and have therefore been named the “Breakthrough of the Year 2023” by the renowned journal *Science*.¹

Objective

- The study objective was to assess prescription patterns for GLP-1 receptor agonists as well as associated patient characteristics in Germany.

Methods

- This retrospective data analysis was based on German claims data of the Institute for Applied Health Research Berlin (InGef) research database.
- The InGef research database is an anonymized sample of ~4 million individuals² (~5% of German population³).
- It is representative in terms of age and sex and provides a good reflection of the morbidity, mortality, and drug use of the German population.²
- Patients ≥18 years were included in the analysis if they presented with ≥1 prescription of ATC code A10BJ “Glucagon-like-peptide-1-[GLP-1]-receptor agonists” in the years 2017 to 2022.
- Demographic characteristics, comorbidities, and comorbidity groups of patients as well as prescribing trends were analyzed.

Limitations

- This study did not distinguish between the various agents in the medication class GLP-1 receptor agonists, which might be used in different patient populations depending on the agent.
- Furthermore, the analyses were descriptive only and no inferential statistics regarding the association of patient characteristics such as comorbidities and GLP-1 receptor agonists have been performed.

Conclusions

- There is a strong increase in prescriptions of GLP-1 receptor agonists in Germany and most patients present with a high morbidity burden.
- Future analyses using longitudinal real-world data and appropriate control groups are necessary to confirm the benefits of this promising medication class on comorbidities and patient outcomes.

References

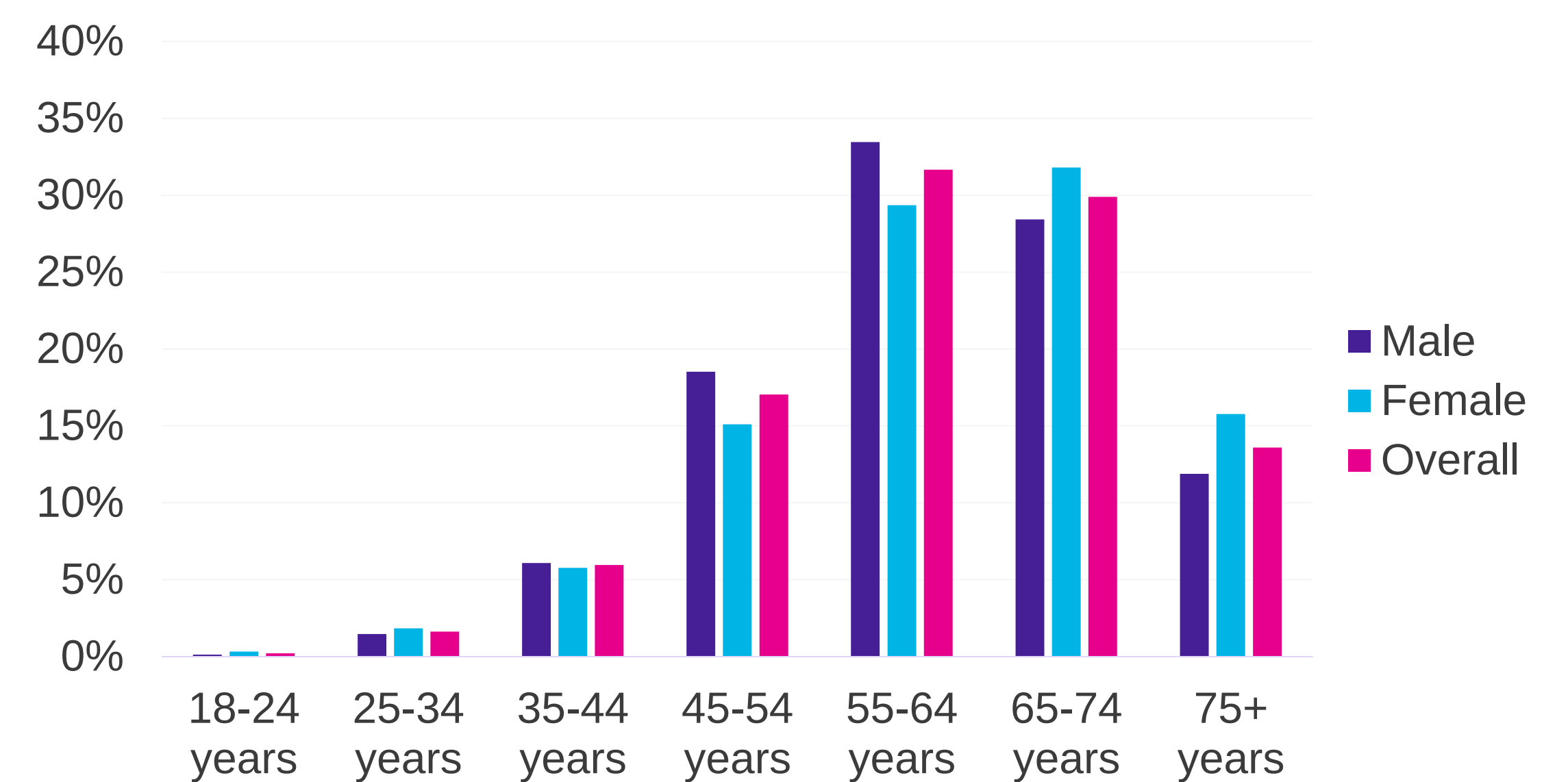
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Results

Patient characteristics

- Among 3,322,440 patients continuously observable in the database, we identified 36,602 (~1.1%) adult patients with at least one prescription for GLP-1 receptor agonists between 2017 and 2022.
- 56.4% of all patients were male.
- At the time of first prescription, patients were, on average, 61.9 years old (SD: 11.7 years), with the 55-64 age group representing the largest proportion (Figure 1).

Figure 1. Age and sex distribution of identified patients



GLP-1 prescriptions

- Over the years, the number of patients with prescriptions for GLP-1 receptor agonists increased from 7,981 (240.2 per 100,000) in 2017 to 28,509 (858.1 per 100,000) in 2022 (Figure 2).
- The number of prescribed packages increased from 26,707 (803.8 per 100,000) to 109,924 (3,308.5 per 100,000) in the same timeframe (Figure 3).
- Prescriptions were mainly made by general practitioners (90.9%) (Figure 4).

Figure 2. Number of patients with GLP-1 prescriptions by year

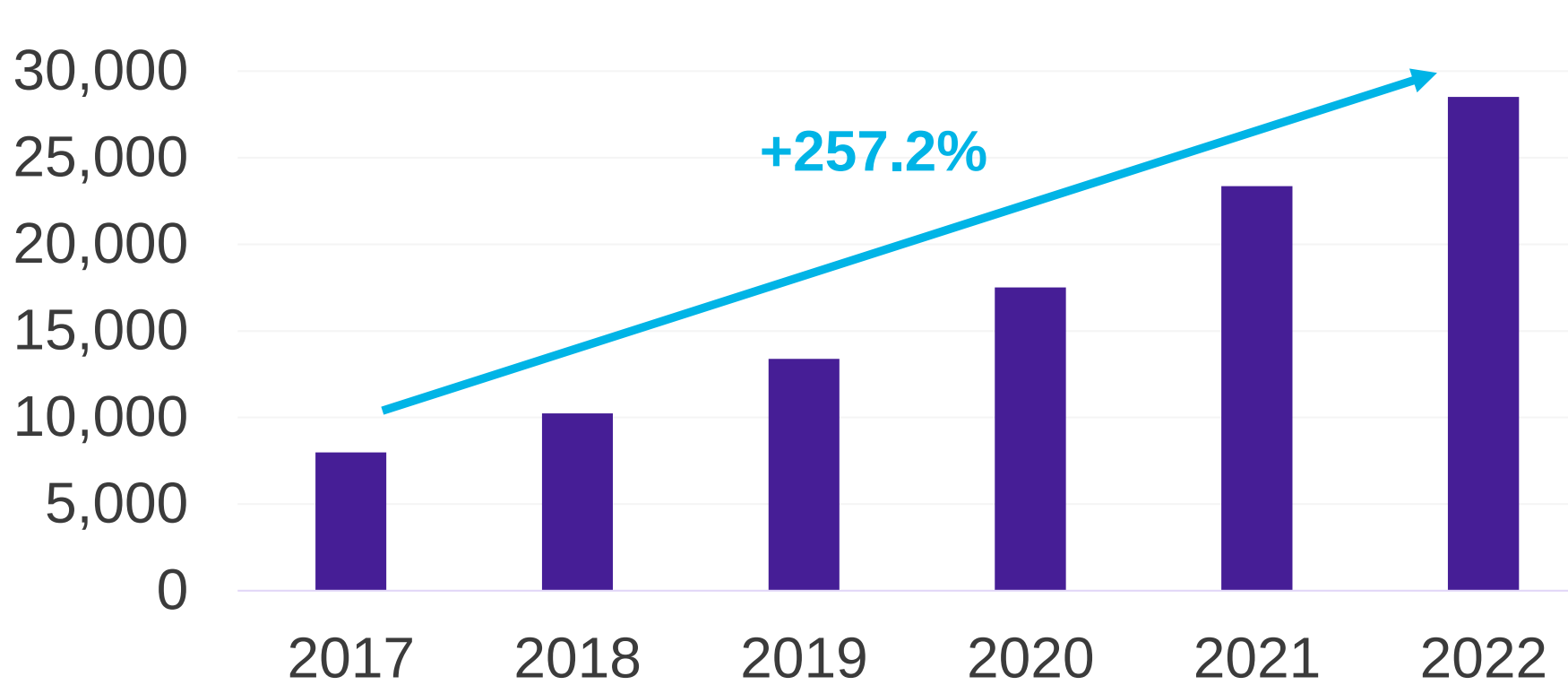


Figure 3. Number of prescribed GLP-1 packages by year

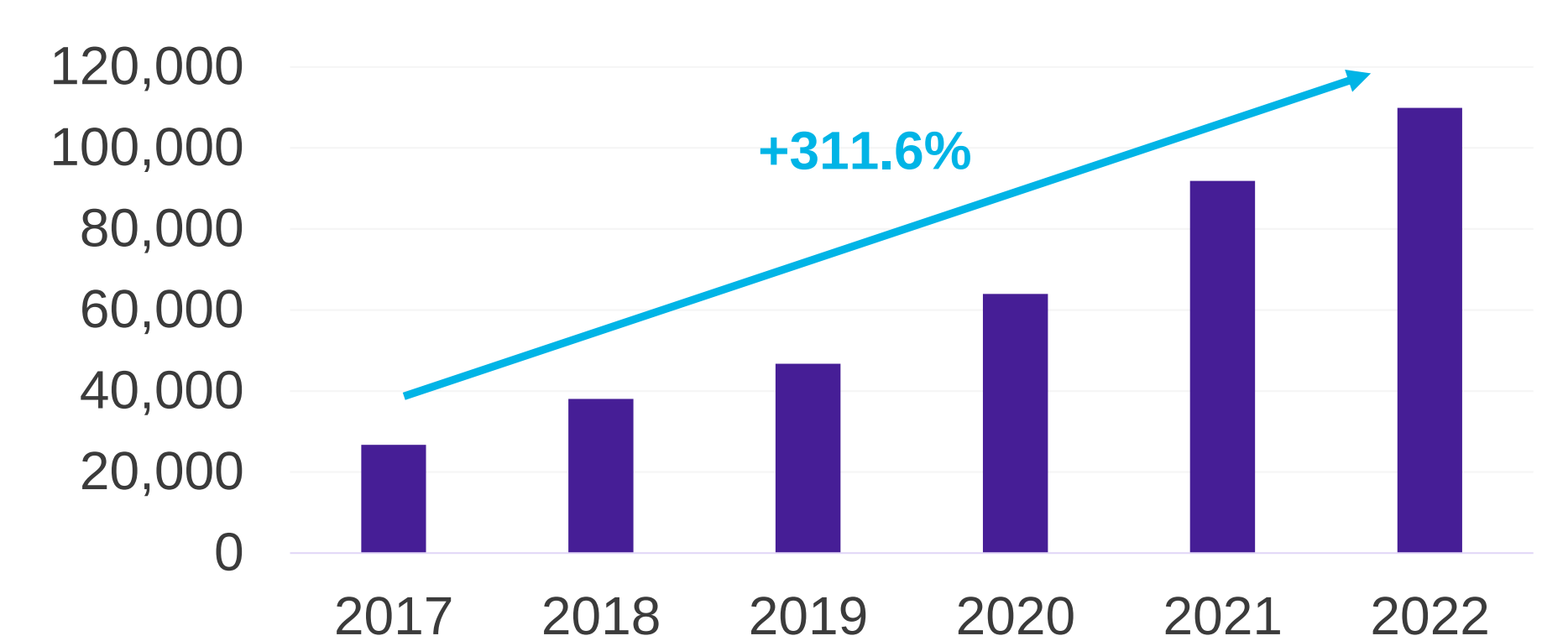
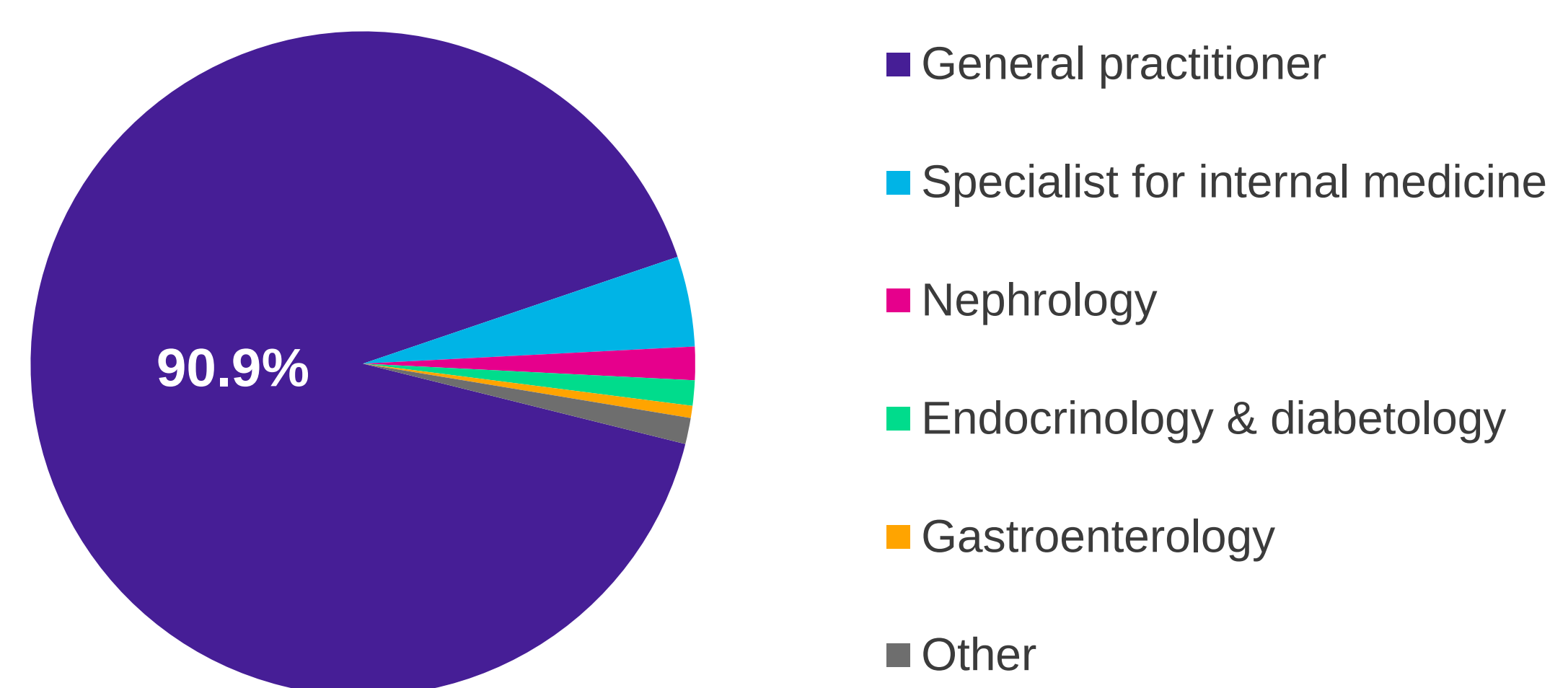


Figure 4. Top 5 prescribing physician specialties



Patient comorbidities

- In addition to diabetes, the comorbidity burden over the six-year study period was substantial.
- Selected comorbidities of interest are shown in Figure 5.

Figure 5. Comorbidities of patients with GLP-1prescriptions

