

# Uptake of Biosimilars to Insulin Glargine in 2021-2025 in the United States

Ting-Ying Huang, PhD<sup>1</sup>; Jingjing Qian, PhD<sup>2</sup>

<sup>1</sup>Komodo Health, New York, New York and San Francisco, California, USA; <sup>2</sup>Auburn University Harrison College of Pharmacy, Auburn, Alabama, USA



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## Objective

Insulin glargine (Lantus®) is a long-acting, once-daily, man-made insulin used to control high blood sugar in adults and children with diabetes. Insulin glargine-yfgn (Semglee®) is the first biosimilar that is interchangeable with Lantus®, approved by the U.S. FDA in July 2021. A second biosimilar, insulin glargine-aglr (Rezvoglar®), was approved in December 2021 and designated interchangeable status in November 2022. Real-world evaluations for the uptake of Semglee® and Rezvoglar® in nationally representative populations are limited. This exploratory study evaluated the uptake of insulin glargine biosimilars among insured populations since their approval.

## Methods

- ▶ Study design: cross-sectional
- ▶ Observation period: July 1, 2021 – October 31, 2025
- ▶ Data source: administrative data and open + closed claims from the Komodo Research Dataset

### Komodo Research Dataset (KRD)

Composed of administrative data and claims, KRD captures routinely collected health services utilization records and expenditures for over 330 million de-identified unique individuals in the U.S. Native to HIPAA-compliant, privacy-preserving tokens, KRD offers extended patient-level observations of medical encounters and outpatient pharmacy dispensings via linkage across health and pharmacy insurance plans. Data availability is as early as 2016. Specialty datasets such as genomics, laboratory test results, and electronic medical records are readily accessible via additional linkage. KRD is the optimized schema of the underlying Healthcare Map® from Komodo Health® for real-world evidence (RWE) generation and health economics and outcome research (HEOR).

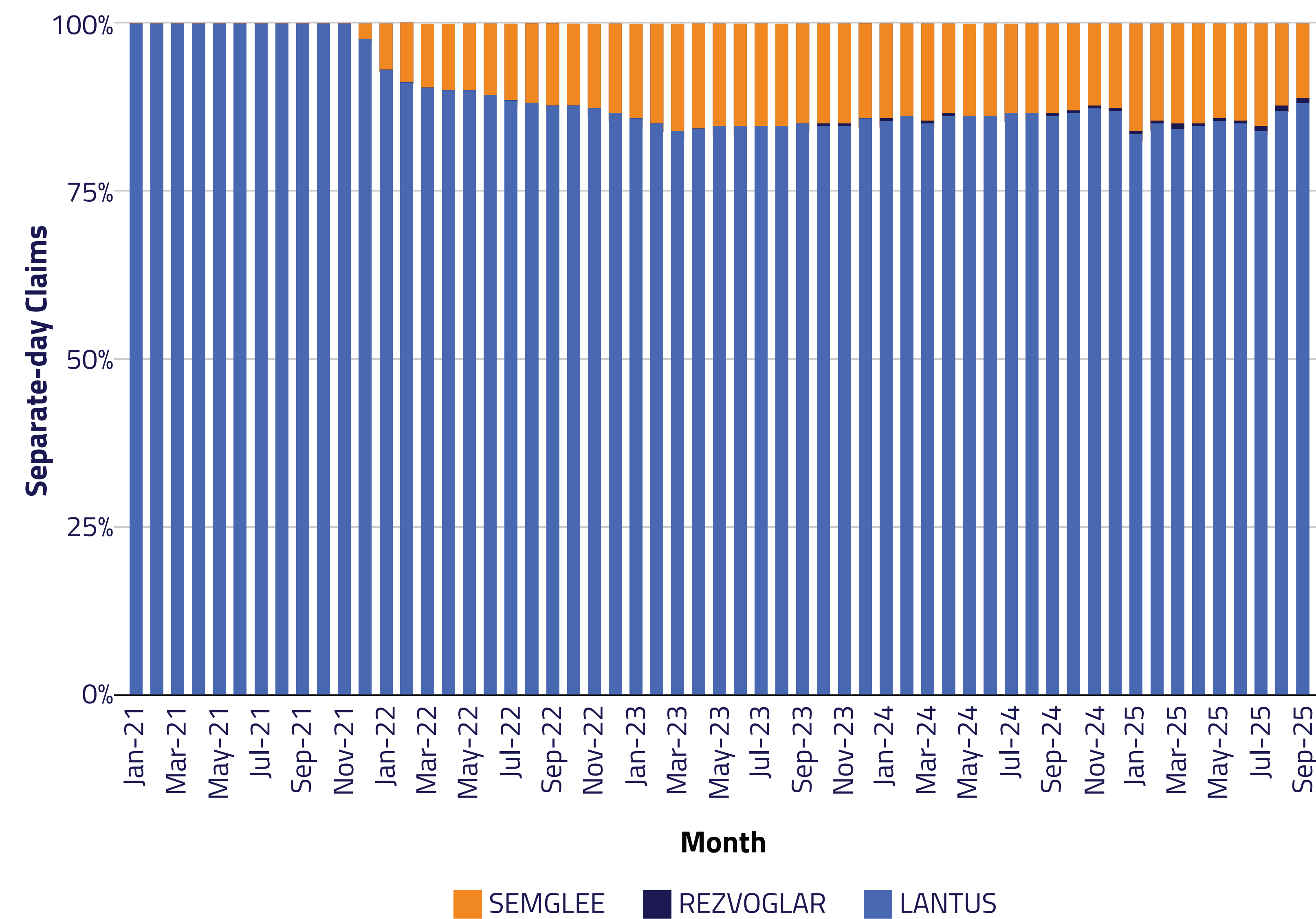
- ▶ Unit of analysis: patients, dispensings (separate-day; identified via outpatient pharmacy claims using National Drug Code (NDC) codes)
- ▶ Analysis: monthly estimates for product-specific utilization of Lantus®, Semglee®, and Rezvoglar®, including the number and proportion of users and dispensings of individual insulin glargine products
- ▶ Software and artificial intelligence (AI): descriptive data analyses were performed using Microsoft Excel 2016 and Gemini Pro (November 2025).

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## Results

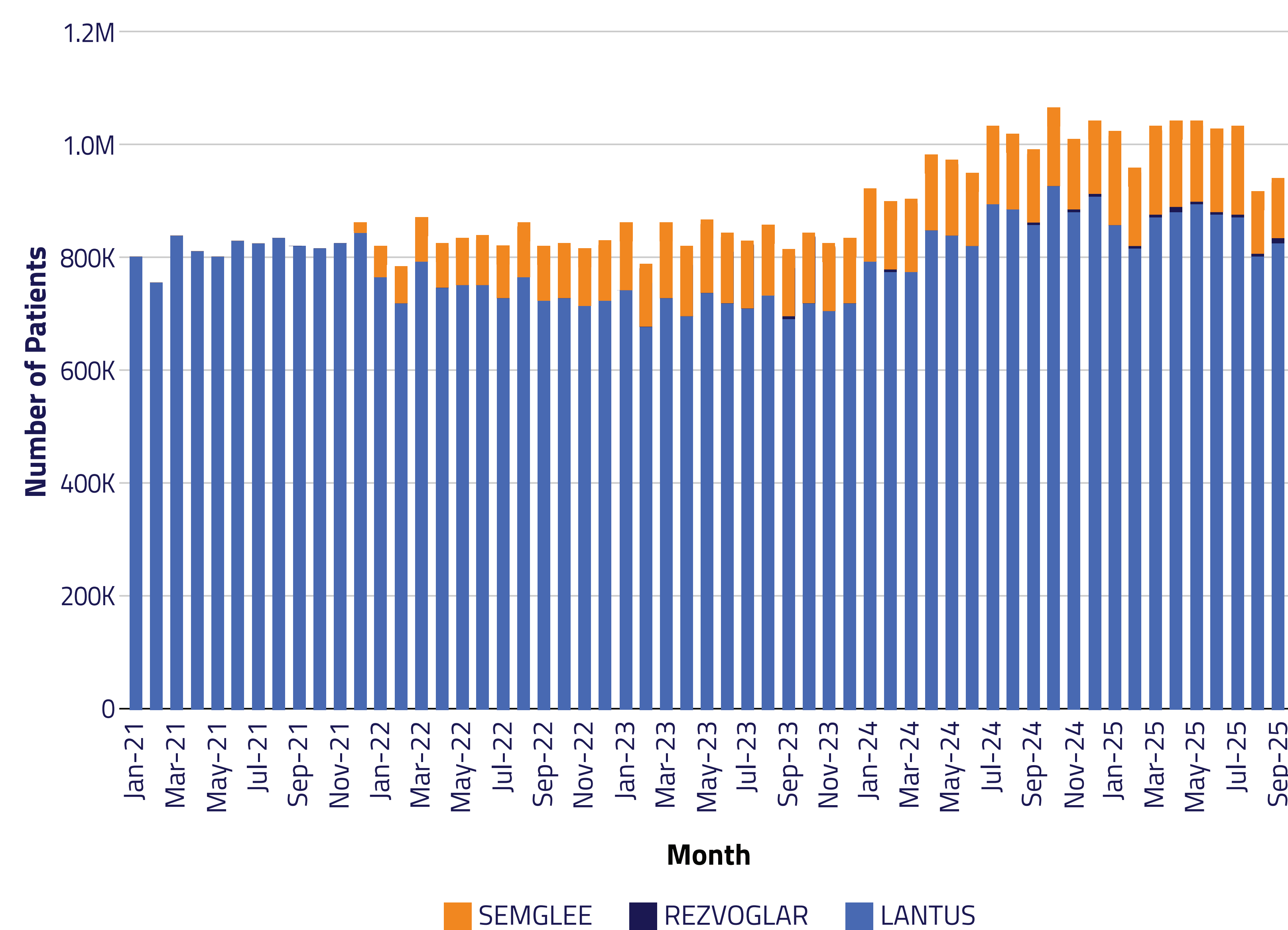
- ▶ A total of 6,660,070 patients (as represented by unique tokens) and 59,155,400 dispensings of insulin glargine were identified throughout the observation period.
- ▶ After 4 years in the U.S. market, the monthly proportion of Semglee® in all insulin glargine dispensings increased from 0% in July 2021 to 13.6% (n=147,463, Figure 1) in October 2025.

Figure 1. Distribution of Insulin Glargine Dispensings



Similarly, among the patients who filled any insulin glargine prescription monthly, those filling Semglee prescriptions increased from 0% to 13.7% by October 2025 (Fig. 2).

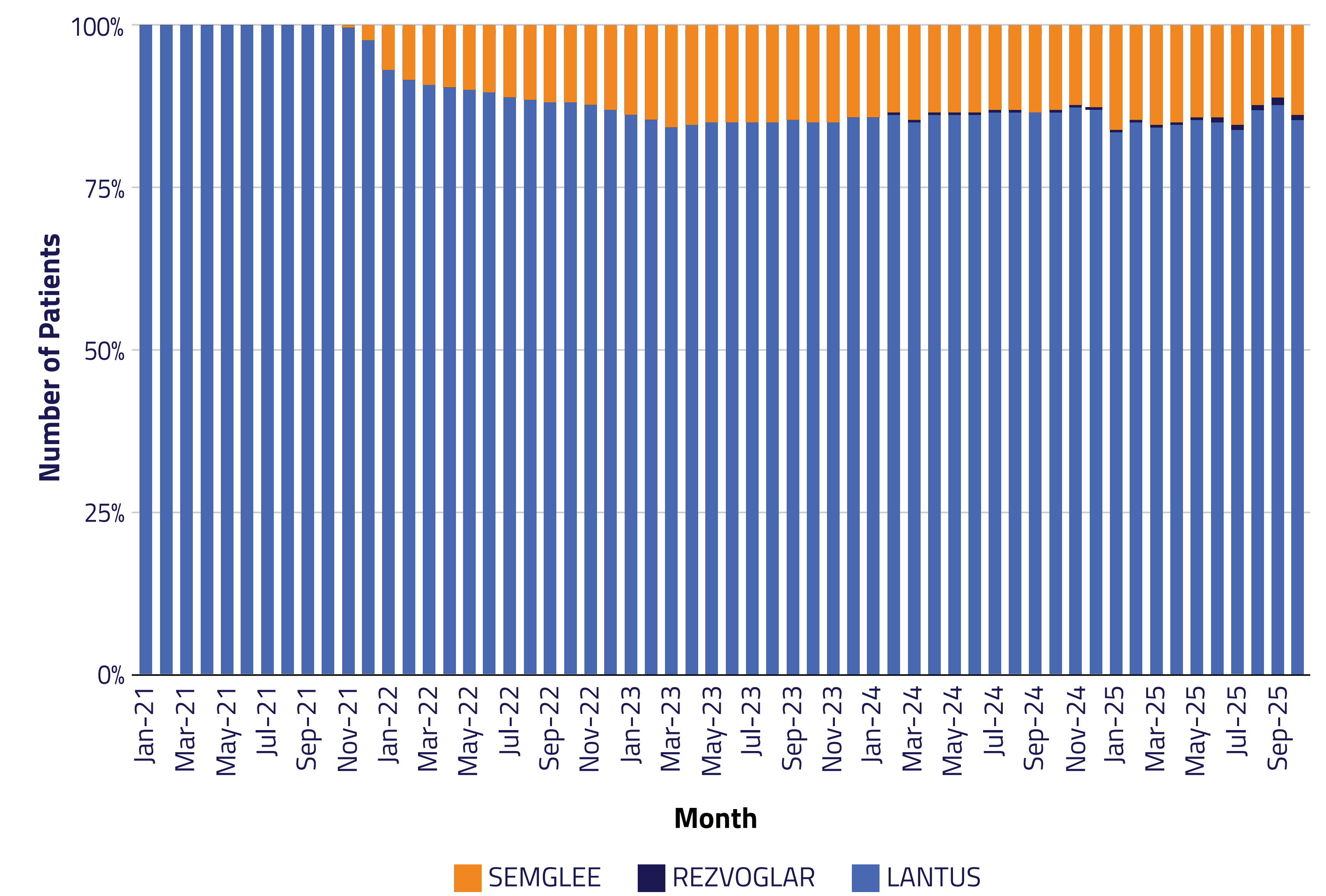
Figure 2. Number of Patients With Insulin Glargine Dispensings



## Results

- ▶ In October 2025, the monthly proportion of claims and patients of Rezvoglar® was only 0.8%.

Figure 3. Distribution of Patients With Insulin Glargine Dispensings



## Conclusion

- ▶ Lantus® still dominates the insulin glargine market to date after its biosimilar approval.
- ▶ Mild uptake of insulin glargine biosimilars in the insured populations was observed within the first 4 years of marketing in the U.S.
- ▶ Further exploration of factors to access such as provider and patient education, policy implementation, and reimbursement reform is warranted to foster stronger biosimilar adoption.

## Disclosures

- ▶ Ting-Ying Huang is an employee of Komodo Health and receives employment-based compensation from Komodo Health.
- ▶ Figures contain AI-assisted visualization generated by Gemini Pro (see Methods).