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Introduction

With currently six biologics available to treat severe asthma, choosing the optimal initial therapy and deciding which other biologic to switch to in case of insufficient benefit is challenging.

Methods

We evaluated 2649 adult patients with severe asthma from the German Asthma Net (GAN) registry who were biologic-naïve at registry inclusion between 2011 and 2024. Patients who had a switch of biologic therapy were additionally assessed at follow-up (after 1 year/2 years/4 months). Remission was defined as no exacerbation in the previous 12 months, no use of oral corticosteroids and asthma control test (ACT) score ≥ 20 .

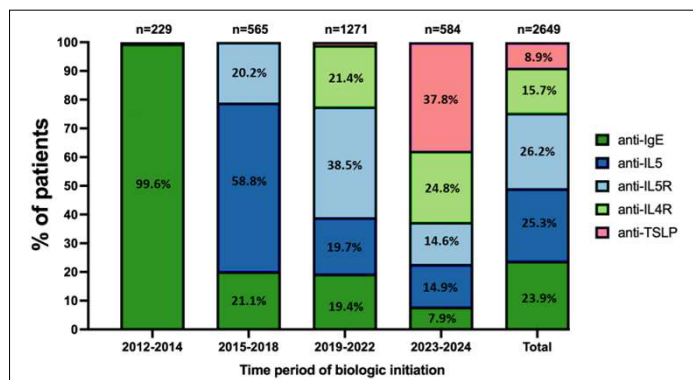


Figure 1 : Relative frequencies of initial biologic choice over time.

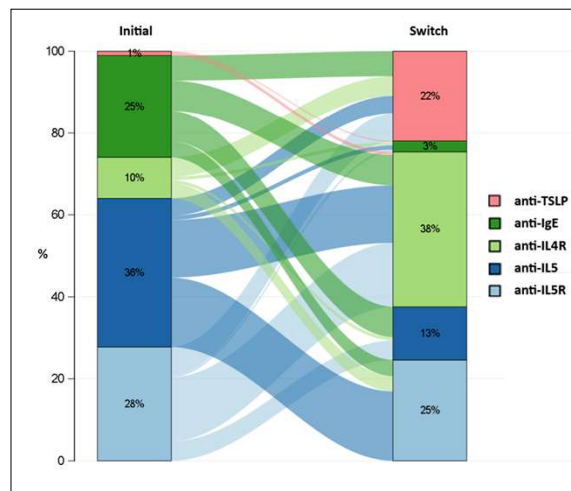


Figure 2 : Relative frequencies of switch constellations. Total number of switch patients n=378, percentages are relative to this number.

Conclusion

Phenotyping of patients with severe asthma is an important factor determining the initial choice of biologic therapy in real-world practice. Choice and switch of biologic have evolved over time influenced by availability of different drugs, further improving outcomes by adjustment to the best fitted therapy.

Results

Initial choice of biologic was performed depending on availability of the respective drugs (Fig. 1) and according to patients' asthma phenotype:

- Patients treated with anti-IgE were youngest at asthma diagnosis (mean 26 years) and had the highest rates of allergic comorbidities (80%);
- Blood eosinophils were highest in patients receiving anti-IL5R (median 433/ μ l) and lowest in those receiving anti-TSLP (median 159/ μ l);
- FeNO was highest in patients treated with anti-IL5, anti-IL5R or anti-IL4R (median 39, 38 and 35 ppb).

In total 378 patients (14.3%) were switched to a different biologic (Fig. 2). Thereafter, depending on the switch constellation, up to 46% of patients reached remission (Fig. 3).

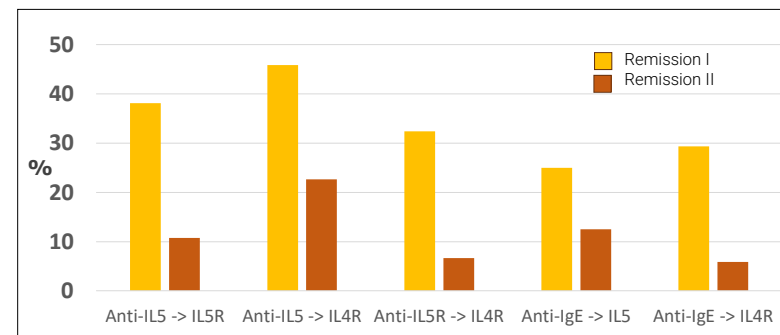


Figure 3 : Proportion of remission depending on switch constellations. Remission I: no exacerbation, no oral corticosteroids, ACT ≥ 20 . Remission II: Remission I + Δ FEV1 ≥ 100 ml.

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