Real-world patient characteristics and prior treatment history of bimekizumab patients in Germany

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Objective

To describe the demography, clinical characteristics, and treatment history of new bimekizumab (BKZ) users in Germany.

Introduction

- BKZ, a dual inhibitor of interleukin (IL)-17F in addition to IL-17A,[1] became accessible to patients with moderate to severe plaque psoriasis in Germany in September 2021. Germany was the first country where BKZ was accessible to patients.
- While case studies show BKZ is efficacious in a real-world setting,[2] limited data are available describing the profile of patients treated with BKZ in clinical practice.
- Here, we report patient characteristics and treatment history in new BKZ users in Germany, as derived from a prescription database.

Methods

- This longitudinal, observational cohort study used data from a German nationwide prescription database provided by Insight Health, claiming a coverage of 77% of the publicly insured German population (i.e., approximately 64 million individuals), and included adults who started BKZ treatment between 1st September 2021 and 31st December 2022.
- A 33-month lookback period prior to first BKZ prescription was used to describe treatment history, including use of biologics, non-biologic systemic treatments, and history of treatment switching (between biologics or apremilast only). Treatments proximal to first BKZ prescription (in the 1 month prior) were also assessed (**Figure 1**).
- Non-psoriasis treatment history in the 12 months prior was described for key therapeutic classes (**Figure 1**).

Results

Patient Demographics

- From the database, 1,002 patients were included who received their first BKZ prescription in the specified period. The mean age was 48.6 years; 53.5% were identified as male (**Table 1**).
- The most common specialties prescribing BKZ were dermatologists (73.1%) and clinicians working in hospital outpatient clinics (25.0%).

Prior Non-Psoriasis Treatments

- In the 12 months prior to first BKZ prescription, 14.5% of patients had also received a prescription for a lipid-modifying treatment, 12.6% an antidepressant, and 10.8% an antidiabetic treatment (**Table 1**).

Prior Psoriasis Treatments

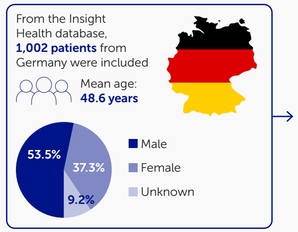
- In the 33 months prior to first BKZ prescription, 48.5% had received a biologic therapy; the most common prior biologic classes were IL-17 (28.9%), IL-23 (21.1%), and tumour necrosis factor (14.9%) inhibitors. Prior psoriasis therapies, including those proximal to first BKZ prescription, are reported in **Table 1**, alongside non-psoriasis treatments.
- Among all included patients, 22.5% switched biologic/apremilast treatment at least once prior to first BKZ prescription and 7.7% switched at least twice.
- Among patients with prior use of a biologic/apremilast (n=531), 36.2% switched treatment class at least once and 10.0% at least twice (**Figure 2**).
  - Of these 531 patients, 24.3% were not exposed to any biologics besides IL-17 inhibitors prior to first BKZ prescription, and 17.3% were not exposed to any biologics besides IL-23 inhibitors (**Figure 2**).

Conclusions

The mean age of the patients identified via the database was aligned with that of the BKZ-treated population in another real-world evidence study.[3]

The heterogeneity of prior biologic therapy and treatment switch profiles suggests there is a broad profile of patients prescribed BKZ in clinical practice. Approximately half of all patients were biologic-naïve and approximately half had not received prior non-biologic systemic treatments, suggesting that BKZ is often used as a first-line biologic therapy. Notable proportions of patients received non-psoriasis therapies prior to BKZ prescription, potentially reflecting the prevalence of comorbidities in this population.

Summary



- **BKZ as a first-line biologic therapy**
  Approximately 50% of patients were biologic-naïve and approximately 50% had not received non-biologic systemic treatments in the 33 months prior to BKZ prescription
- **Comorbidities were prevalent**
  Nearly one third of patients had received non-psoriasis therapies for common comorbid diseases prior to BKZ prescription
- **Varied patient profile**
  Heterogeneity in prior biologic therapy profiles suggests there is no consistent patient profile for those prescribed BKZ in clinical practice

Table 1 Patient characteristics and prior treatment history

	Study cohort (N=1,002)
Patient characteristics	
Age (years), mean ± SD	48.6 ± 14.3
Gender,[a] n (%)	
Male	536 (53.5)
Female	374 (37.3)
Unknown/missing	92 (9.2)
Treatment history prior to first BKZ prescription	
1 month prior	
Proximal prior non-biologic treatment for psoriasis, n (%)	
Any non-biologic systemic treatment	51 (5.1)
Apremilast	2 (0.2)
Conventional systemic	28 (2.8)
Acitretin	4 (0.4)
Ciclosporin	5 (0.5)
Fumarate	7 (0.7)
Methotrexate	12 (1.2)
Oral corticosteriods	21 (2.1)
Any topical treatment	308 (30.7)
33 months prior (biologic)	
Prior biologic treatment for psoriasis, n (%)	
Any	486 (48.5)
Anti-IL-12/23	42 (4.2)
Anti-IL-17	290 (28.9)
Anti-IL-23	211 (21.1)
Anti-TNF	149 (14.9)
33 months prior (non-biologic systemic)	
Prior non-biologic systemic treatment for psoriasis, n (%)	
Any	493 (49.2)
Apremilast	72 (7.2)
Conventional systemic	342 (34.1)
Oral corticosteroids	194 (19.4)
12 months prior	
Prior non-psoriasis treatments, n (%)	
Any	303 (30.2)
Antidepressants	126 (12.6)
Antidiabetics	108 (10.8)
Anxiolytics	19 (1.9)
Lipid-modifying agents	145 (14.5)

[a]Gender was estimated by pharmacy coding centres based on first name.

BKZ: bimekizumab; **IL:** interleukin; **SD:** standard deviation; **TNF:** tumour necrosis factor.

Figure 1 Data lookback periods for prior treatment history

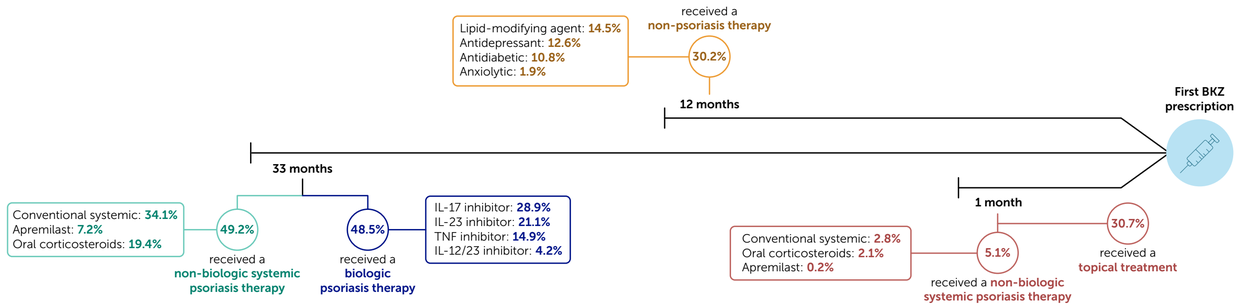
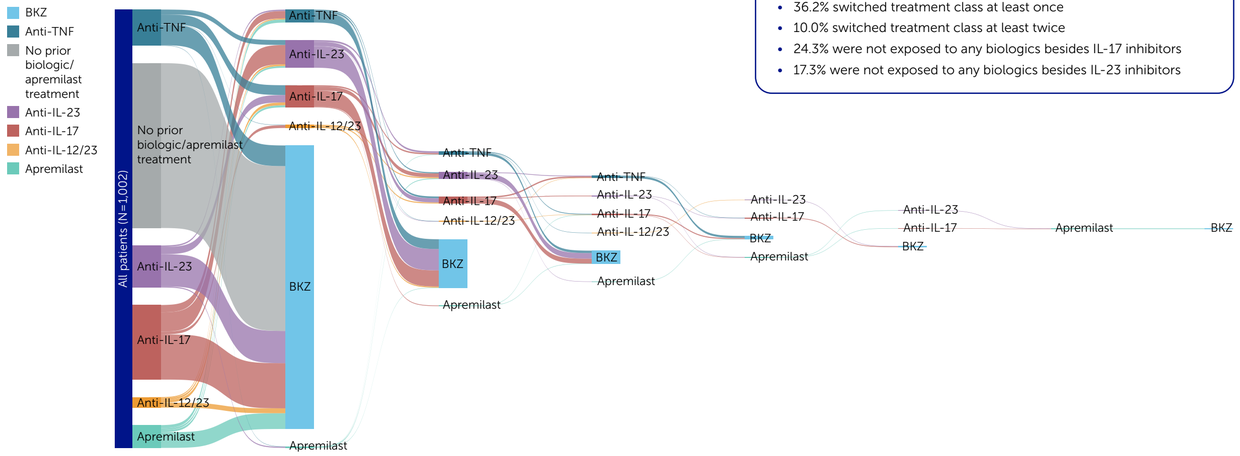


Figure 2 Treatment class switches in the 33 months prior to first BKZ prescription



Among patients with prior use of a biologic/apremilast (n=531):

- 36.2% switched treatment class at least once
- 10.0% switched treatment class at least twice
- 24.3% were not exposed to any biologics besides IL-17 inhibitors
- 17.3% were not exposed to any biologics besides IL-23 inhibitors

This figure describes prior biologic/apremilast treatment class switches in the 33 months prior to first BKZ prescription for all patients identified in this study (N=1,002).

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References: [1]Adams R et al. Front Immunol 2020;11:1894; [2]Kokolakis G & Ghoreschi K. J Clin Med 2022;12:35; [3]Gargiulo L et al. Front Med (Lausanne) 2023;10:1243843. **Author Contributions:** Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: **AZ**, **AR**, **AS**, **RB**, **GK**; Drafting of the publication, or reviewing it critically for important intellectual content: **AZ**, **AR**, **AS**, **RB**, **GK**; Final approval of the publication: **AZ**, **AR**, **AS**, **RB**, **GK**. **Author Disclosures: AZ:** Served as an advisor and/or received speaker's honoraria and/or received grants and/or participated in clinical trials for AbbVie, Almirall, Amgen, Beiersdorf Dermo Medical, Bencard Allergie, Bristol Myers Squibb, Celgene, Eli Lilly, GSK, Janssen-Cilag, LEO Pharma, Novartis, Pfizer, Sanofi Aventis, Sanofi-Regeneron and UCB Pharma. **AR**, **AS:** Employees and shareholders of UCB Pharma. **RB:** Employee of UCB Pharma. **GK:** Received travel grants or honoraria or has been a consultant member of advisory boards and speaker bureaus or has served as investigator for AbbVie, Actelion, Almirall, Amgen, Baslea, Biogen, Boehringer Ingelheim, Bristol Myers Squibb, Celgene, Eli Lilly, Hexal-Sandoz, Janssen-Cilag, LEO Pharma, MSD, Novartis, Pfizer, Sanofi-Aventis and UCB Pharma. **Acknowledgements:** This study was funded by UCB Pharma. We thank the patients and their caregivers in addition to the investigators and their teams who contributed to this study. The authors acknowledge Joe Dixon, PhD, UCB Pharma, Slough, UK, and Susanne Wiegratz, MSc, UCB Pharma, Monheim, Germany for publication coordination, Poppy Wilson, MBiol and Daniel Smith, MA, Costello Medical, London, UK for medical writing and editorial assistance and the Creative team at Costello Medical for graphic design assistance. All costs associated with development of this poster were funded by UCB Pharma.

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