REAL-WORLD CHARACTERISTICS AND HEALTHCARE RESOURCE USE IN PATIENTS WITH PSORIATIC ARTHRITIS TREATED WITH BIMEKIZUMAB IN SWEDEN: THE BIMENORDIX STUDY

EE240

Triantafyllos Pliakas[1,2], Alexandra Cooper[3], Gustaf Ortsäter[3], Alvin F. Wells[4], Flore Decuypere[5], Adam R Prickett[6], Hervé Besson[1]

[1]UCB, Breda, Netherlands; [2]Impact Epilysis, Thessaloniki, Greece; [3]Quantify Research, Stockholm, Sweden; [4]American Medical Group, Destin, FL, USA; [5]UCB, Brussels, Belgium; [6]UCB, Slough, United Kingdom.

Presenter: Derek Emms

Objective

To describe patient characteristics and healthcare resource use (HCRU) in patients with psoriatic arthritis (PsA) initiating bimekizumab (BKZ) in Sweden.

Background

- BKZ, a dual interleukin (IL)-17A/F inhibitor, is approved for the treatment of PsA[1]. This study is one of the first to depict real-world evidence from Swedish clinical practice, including patient characteristics, HCRU and associated costs.

Methods

- Adult patients (≥18 years) initiating BKZ with a PsA diagnosis (International Classification of Diseases [ICD]–10: L40.5, M07.0–3) within two years before BKZ initiation (index) were identified between 1 January 2023 and 30 June 2024. Further criteria shown in **Figure 1**.
- Baseline co-diagnoses and treatment history were described from 1 January 2005 up to and including BKZ initiation date.
- HCRU (outpatient visits, rheumatology visits, inpatient visits) and costs were assessed in the six months before and after BKZ initiation.
- Outcomes were further stratified by baseline co-diagnosed psoriasis (PsO), hereafter referred to as concomitant PsO (ICD–10: L40.0–4, L40.8–9).

Results

Patient characteristics

- A total of 280 patients were included (mean age 53.1 [standard deviation, SD 14.2] years; 62.1% female).
- Common co-diagnoses were joint pain (28%) and osteoarthritis (27%); 73% of patients had concomitant PsO.
- 99% had prior exposure to a biologic and targeted synthetic disease-modifying anti-rheumatic drug (b/tsDMARD) and 81% received ≥2 previous b/tsDMARDs.
- Patients without PsO were more likely to be female and prescribed BKZ from a rheumatologist compared to patients with PsO (**Table 1**).

HCRU and associated costs

- Mean total (in- and outpatient) visits per six months decreased from 4.2 (SD 3.4; Median 3; inter-quartile range [IQR] 4) pre-initiation to 3.6 (SD 3.8; Median 3; IQR 4) visits post-BKZ initiation.
- Outpatient rheumatology visits showed the greatest reduction, with >70% of patients having ≤ 1 visit post-BKZ initiation (**Figure 2**).
- Decreases were observed in total outpatient visits among patients with concomitant PsO (**Figures 3B and 3C**)
- Mean (SD) costs per six months changed from €1766 (1387) pre-BKZ initiation to €1492 (1525) post-BKZ initiation for outpatient visits, €736 (2815) to €500 (1833) for inpatient visits, and €3667 (3170) to €7784 (3289) for dispensed medications.

Conclusion

- **BKZ is utilized in a high-need PsA population with extensive prior b/tsDMARD exposure and a substantial co-diagnostic burden, reflecting use in patients with limited remaining treatment options.**
- **Higher drug acquisition costs following BKZ initiation, partly due to induction dosing, were partly offset by stable or reduced HCRU, including outpatient and inpatient care.**
- **These findings support a total cost-of-care perspective, suggesting BKZ may improve disease control without increasing overall healthcare burden, particularly in patients with concomitant PsO, helping to inform future treatment decision-making.**

Summary

Patient characteristics at baseline

62.1% 37.9%

280 BKZ initiators with PsA

No pre-exposure: 1.0% Pre-exposure: 99.0%

Majority had prior b/tsDMARD exposure

With PsO / Without PsO

73% had concomitant PsO

Healthcare resource use

Healthcare visits decreased moderately from 6 months pre-BKZ initiation to post-BKZ initiation, particularly in total outpatient and rheumatology visits.

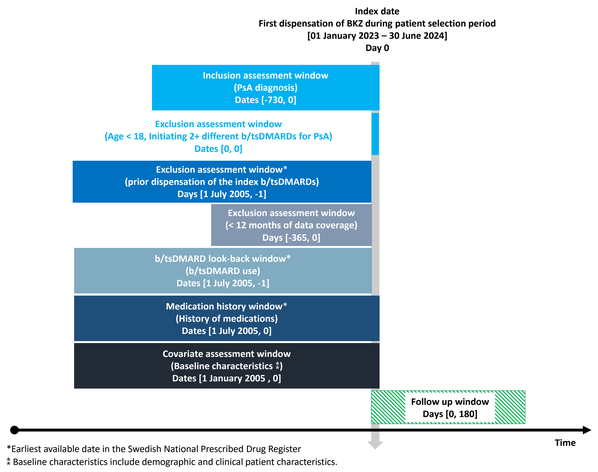
Healthcare costs

From 6 months pre-BKZ initiation to post-BKZ initiation, healthcare visitation costs declined modestly, while medication costs increased.

Conclusion

Patients with PsA initiating BKZ had notable prior b/tsDMARD exposure and co-diagnostic burden, particularly concomitant PsO. In this higher-needs population, costs shifted toward effective treatment, while in- and outpatient HCRU was maintained or reduced.

Figure 1 Study design



*Earliest available date in the Swedish National Prescribed Drug Register
‡ Baseline characteristics include demographic and clinical patient characteristics.

Table 1 Characteristics of patients with PsA by concomitant PsO

	Total cohort	With PsO	Without PsO
Cohort, N (%)	280 (100.00)	205 (73.21)	75 (26.79)
Female, n (%)	174 (62.14)	119 (58.05)	55 (73.33)
Age, mean (SD)	53.05 (14.23)	52.87 (14.19)	53.56 (14.40)
Prescriber specialty[a] , n (%)			
Rheumatologist	187 (66.79)	125 (60.98)	62 (82.67)
Dermatologist	60 (21.43)	60 (29.27)	0 (0.00)
Missing	30 (10.71)	18 (8.78)	12 (16.00)
Number of prior b/tsDMARDs, n (%)			
0–1[b]	52 (18.57)	43 (20.98)	9 (12.00)
≥2	228 (81.43)	162 (79.02)	66 (88.00)
History of medications[c]			
Number of medications[d], mean (SD)	1.41 (1.06)	1.32 (1.01)	1.65 (1.16)
Medications[a], n (%)			
NSAIDs (excluding topicals)	167 (59.64)	119 (58.05)	48 (64.00)
Opioids	53 (18.93)	39 (19.02)	14 (18.67)
Corticosteroids (excluding topicals)	80 (28.57)	53 (25.85)	27 (36.00)
Methotrexate	82 (29.29)	51 (24.88)	31 (41.33)
Sulfasalazine[e]	12 (4.29)	NR	NR
Years since first PsA diagnosis[f], mean (SD)	8.40 (6.17)	8.75 (6.18)	7.46 (6.08)
History of co-diagnoses[a], n (%)			
Joint pain	77 (27.50)	53 (25.85)	24 (32.00)
Osteoarthritis	75 (26.79)	53 (25.85)	22 (29.33)
Hypertension	61 (21.79)	49 (23.90)	12 (16.00)
Anxiety	53 (18.93)	40 (19.51)	13 (17.33)
Cardiovascular comorbidity	48 (17.14)	33 (16.10)	15 (20.00)
Depression	48 (17.14)	33 (16.10)	15 (20.00)
Obesity	47 (16.79)	35 (17.07)	12 (16.00)
Asthma	41 (14.64)	32 (15.61)	9 (12.00)
Rheumatoid arthritis	41 (14.64)	22 (10.73)	19 (25.33)
Diabetes	35 (12.50)	29 (14.15)	6 (8.00)
Malignancies	34 (12.14)	26 (12.68)	8 (10.67)
Sleep apnea	32 (11.43)	25 (12.20)	7 (9.33)
Axial spondylarthritis (axSpA)	30 (10.71)	16 (7.80)	14 (18.67)
Lower back pain	26 (9.29)	18 (8.78)	8 (10.67)
Allergy	25 (8.93)	20 (9.76)	5 (6.67)
Fibromyalgia	25 (8.93)	15 (7.32)	10 (13.33)
Fatigue	23 (8.21)	13 (6.34)	10 (13.33)
Hyperlipidaemia[e]	23 (8.21)	NR	NR
Dactylitis[e]	15 (5.36)	NR	NR
Osteoporosis[e]	10 (3.57)	NR	NR
Liver disease[e]	9 (3.21)	NR	NR
Hidradenitis suppurativa[e]	6 (2.14)	NR	NR

[a]Select prescriber specialties (orthopedist, general practitioner, and other), prior medications (hydroxychloroquine and leflunomide), and co-diagnoses (chronic kidney disease, enthesitis, oligoarthritis, urethritis, anterior uveitis, systemic lupus erythematosus, and metabolic syndrome) are not shown due to low patient counts in the total cohort (n <5).[b]Results were consolidated into a single category because fewer than five patients had no prior b/tsDMARD exposure. [c]Assessed during the 90 days before and including BKZ initiation date (index date). [d]Defined as at least one dispensation for a medication in any of the following seven categories: NSAIDs, opioids, corticosteroids (excluding topicals), hydroxychloroquine, leflunomide, methotrexate, sulfasalazine. [e]Results censored within PsO strata because of low patient counts (n <5). [f]Defined as the time in years from the first recorded diagnosis of PsA during the covariate assessment period (from 1 January 2005 up to index date).

Figure 2 Outpatient rheumatology visits per patient during the 6 months before and after BKZ treatment initiation

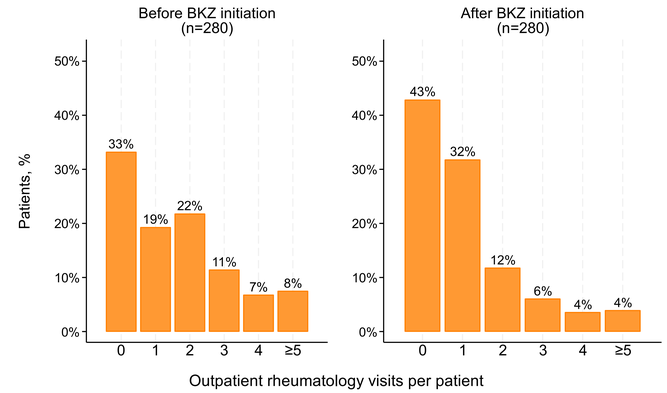
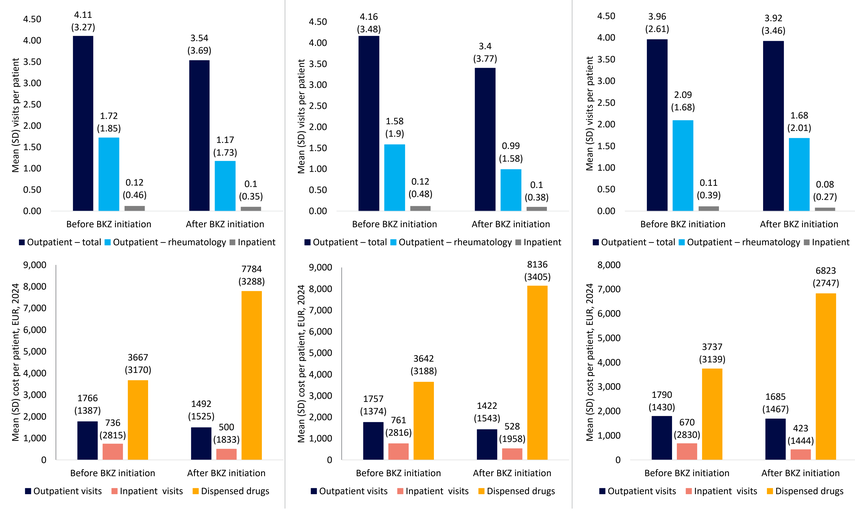


Figure 3 Healthcare resource use and costs during the 6 months before and after BKZ treatment initiation, stratified by concomitant PsO



b/tsDMARD: biologic and targeted synthetic disease-modifying anti-rheumatic drug; **BKZ**: Bimekizumab; **HCRU**: healthcare resource use; **ICD**: international classification of diseases; **IL**: interleukin; **IQR**: interquartile range; **NR**: not reported; **NSAID**: non-steroidal anti-inflammatory drug; **PsA**: psoriatic arthritis; **PsO**: psoriasis; **SD**: standard deviation.

References: [1]UCB receives new European Commission approvals for bimekizumab for the treatment of psoriatic arthritis and axial spondyloarthritis [press release]. 2023. **Author Contributions:** All authors contributed to the study conception/design, acquisition/analysis/interpretation of data, drafting of publication, and/or reviewing it critically. All authors provided final approval of the publication. **Author Disclosures: TP:** Complementary worker of UCB. Has received consultancy fees from BioNTech, GSK, Pathfinder, John Snow Inc, GambleAware, International Centre for Research on Women, and UNAIDS through Impact Epilysis. Has contracts with Impact Epilysis, BioNTech and GSK; **AC:** Employee of Quantify Research; **GO:** Employee of Quantify Research; **AW**: Provided research support and served as a member of advisory boards and/or speaker for AbbVie, Amgen, Alexion, AstraZeneca, Aurinia, Boehringer Ingelheim, Bristol Myers Squibb, GlaxoSmithKline, Lilly, Mallinckrodt, MiCare Path, Novartis, Pfizer, Regeneron Pharmaceuticals Inc., Sanofi Genzyme, Scipher Medicine, and UCB; **FD**: Employee and shareholder of UCB; **AP**: Employee and shareholder of UCB; **HB**: Employee and shareholder of UCB. **Acknowledgements:** The authors acknowledge Lyes Derouiche, PhD, Brussels, Belgium, UCB, for publication coordination, Quantify Research for medical writing and editorial assistance, and Costello Medical for review management. This study was funded by UCB. All costs associated with development of this poster were funded by UCB.

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