# Bimekizumab versus secukinumab in plaque psoriasis: Cumulative clinical and health-related quality of life benefit through 2 years of the BE RADIANT phase 3b trial and open-label extension

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## Objective

***To compare the cumulative clinical and health-related quality of life (HRQoL) benefit through 96 weeks for patients who received continuous bimekizumab (BKZ) vs patients who switched from secukinumab (SEC) to BKZ upon entering the BE RADIANT open-label extension (OLE) at Week 48.***

## Introduction

- Clinical trials in psoriasis typically focus on treatment outcomes at specific timepoints.[1]
- Evaluating the cumulative benefit of treatment over time using area under the curve (AUC) analyses captures the speed, level, and durability of patient responses.[1]
- By using this approach and considering HRQoL, a more holistic assessment of the impact of psoriasis treatment can be obtained.[1]

## Materials and Methods

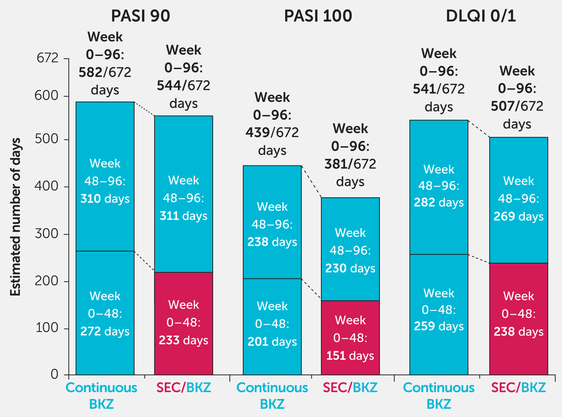
- In the BE RADIANT phase 3b trial (NCT03536884), patients received BKZ or SEC as shown in **Figure 1**.[2] At Week 48, patients could enrol in the BE RADIANT OLE and received BKZ 320 mg every 4 weeks (Q4W) or Q8W based on treatment, dose, and Week 48 Psoriasis Area and Severity Index (PASI) response (**Figure 1**).[2]
- We report total AUC and cumulative clinical and HRQoL benefit through 48 weeks ($AUC_{0–48}$) and 96 weeks ($AUC_{0–96}$) for ≥90%/100% improvement from baseline in PASI (PASI 90/100) and Dermatology Life Quality Index 0 or 1 (DLQI 0/1).
- Cumulative clinical and HRQoL benefit was defined as the estimated number of days on which patients achieved PASI 90, PASI 100, and DLQI 0/1. It was calculated as the proportion of the total possible AUC achieved for each outcome multiplied by the number of days in 48 or 96 weeks.
- Data are reported using modified non-responder imputation (mNRI) and NRI.
  - For mNRI, patients who discontinued due to lack of efficacy were considered non-responders at subsequent timepoints; multiple imputation was used for all other missing data.

## Results

- Baseline demographics have been reported previously and were similar in patients randomised to BKZ (N=373) or SEC (N=370).[2]
- Through 48 weeks, total AUC and the estimated number of days on which patients achieved PASI 90, PASI 100, and DLQI 0/1 was higher in patients randomised to BKZ vs SEC (**Figure 2**). At Week 48, PASI 100 was achieved for an estimated 50 more days in patients randomised to BKZ vs SEC.
- In patients who switched from SEC to BKZ at Week 48, there were increases in PASI 90, PASI 100, and DLQI 0/1 response rates from Week 48–96 as compared to Week 0–48. However, after the switch, total AUC and the estimated number of days on which patients achieved these outcomes remained higher in patients who received continuous BKZ (**Figure 2**).
- Results were consistent between mNRI (**Figure 2**) and NRI (**Table 1**).

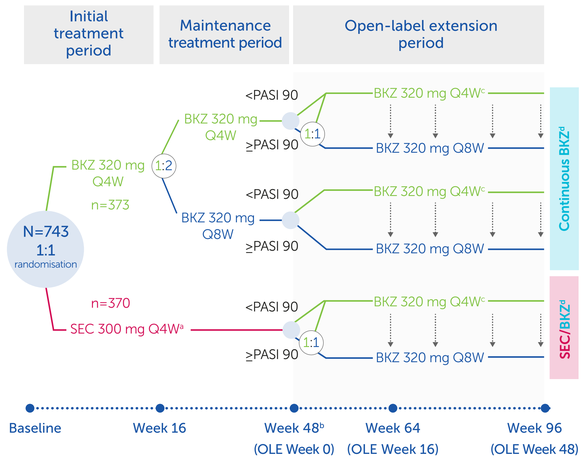

## Summary

Estimated number of days on which patients achieved PASI 90, PASI 100, and DLQI 0/1 (mNRI)




**Across 96 weeks, patients who received continuous BKZ (N=373) achieved PASI 90, PASI 100, and DLQI 0/1 for a greater number of days compared with patients who switched from SEC to BKZ at Week 48 (N=370).**


**Figure 1** BE RADIANT study design



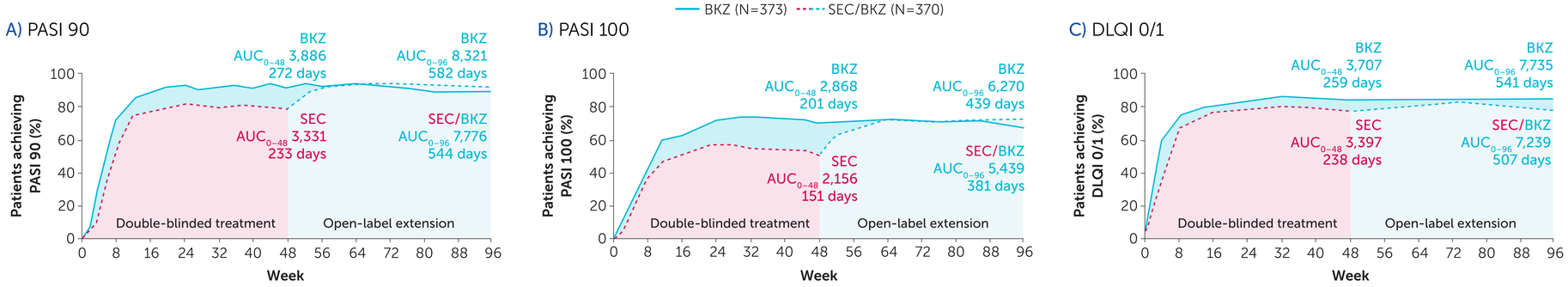

[a]SEC 300 mg was administered at baseline, weekly to Week 4, then Q4W for the remainder of the double-blinded treatment period; [b]Patients receiving BKZ 320 mg Q4W or SEC 300 mg who achieved PASI 90 were randomised 1:1 to BKZ 320 mg Q4W or Q8W in the OLE; [c]At Week 64, or the next scheduled clinic visit, patients switched from BKZ 320 mg Q4W to Q8W after the implementation of a protocol amendment; [d]In this analysis, BKZ Q4W and Q8W treatment arms are pooled.

**Table 1** Cumulative clinical and HRQoL benefit through Weeks 0–48 and 0–96 (NRI)

| | Week 0–48 | | Week 0–96 | |
|---|---|---|---|---|
| | BKZ N=373 | SEC N=370 | BKZ N=373 | SEC/BKZ N=370 |
| **PASI 90,** days (% of days) | 259 (77.0) | 218 (64.8) | 525 (78.1) | 468 (69.7) |
| **PASI 100,** days (% of days) | 195 (58.2) | 144 (42.9) | 415 (61.8) | 349 (51.9) |
| **DLQI 0/1,** days (% of days) | 251 (74.7) | 226 (67.1) | 505 (75.1) | 460 (68.5) |

Data are presented as the mean total number of days on which patients achieved clinical and HRQoL outcomes over 48 and 96 weeks; the corresponding percentages of days are also presented. Data are reported for patients who received continuous BKZ from Week 0–96 and for patients who switched from SEC to BKZ at Week 48.

**Figure 2** Total AUC and cumulative benefit through 48 weeks and 96 weeks for clinical and HRQoL outcomes (mNRI)




Data are presented as the total AUC and estimated number of days on which patients achieved PASI 90, PASI 100, and DLQI 0/1 in BE RADIANT and the BE RADIANT OLE. Data are reported for patients who received continuous BKZ from Week 0–96 and for patients who switched from SEC to BKZ at Week 48.

**AUC:** area under the curve; **BKZ:** bimekizumab; **DLQI:** Dermatology Life Quality Index; **HRQoL:** health-related quality of life; **mNRI:** modified non-responder imputation; **NRI:** non-responder imputation; **OLE:** open-label extension; **PASI 90/100:** ≥90/100% improvement from baseline in Psoriasis Area and Severity Index; **SEC:** secukinumab; **Q4W:** every 4 weeks; **Q8W:** every 8 weeks.

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**References:** [1]Warren RB et al. J Am Acad Dermatol 2019;82:138–49; [2]Reich K et al. N Engl J Med 2021;385:142–52. **Author Contributions:** Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: **ML, PMB, JS, KG, JW, LP, BS, FS, VC, WHB;** Drafting of the publication, or revising it critically for important intellectual content: **ML, PMB, JS, KG, JW, LP, BS, FS, VC, WHB;** Final approval of the publication: **ML, PMB, JS, KG, JW, LP, BS, FS, VC, WHB**. **Author Disclosures: ML:** Employee of Mount Sinai and receives research funds from AbbVie, Amgen, Arcutis, Avotres Therapeutics, Boehringer Ingelheim, Dermavant, Eli Lilly, Incyte, Janssen, LLC, Ortho Dermatologics, Regeneron, and UCB Pharma; consultant for Aditum Bio, Almirall, AltruBio, AnaptysBio, Arcutis, Aristea Therapeutics, Arrive Technologies, Avotres Therapeutics, BiomX, Boehringer Ingelheim, Bristol Myers Squibb, Cara Therapeutics, Castle Biosciences, CorEvitas (formerly Corrona), Dermavant, Dr. Reddy's Laboratories, Evelo Biosciences, Evommune, Facilitation of International Dermatology Education, Forte Biosciences, Foundation for Research and Education in Dermatology, Helsinn Therapeutics, Hexima, LEO Pharma, Meiji Seika Pharma, Mindera, Pfizer, Seanergy, and Verrica. **PMB:** Received personal fees from AbbVie, Almirall, Amgen, Arena Pharma, Biotest, Boehringer Ingelheim, Bristol Myers Squibb, Celgene, Eli Lilly, GSK, Janssen, LEO Pharma, Novartis, Pfizer, Regeneron, Sanofi, and UCB Pharma; received research support from Pfizer (Grant paid to his institution). **JS:** Honoraria and/or received consulting fees from Amgen, Celgene, Dermavant, National Psoriasis Foundation, Ortho Dermatologics, and Regeneron; received grants and consulting fees from Abbvie, Actelion, Boeringher Ingelheim, Dermira, Eli Lilly, Janssen, LEO Pharma, Novartis Pharma, and UCB Pharma; received research grants from Cassiopeia, Galderma, and Pfizer. **KG:** Received honoraria for participation in advisory boards, clinical trials, or as speaker for one or more of the following: AbbVie, Boehringer Ingelheim, Bristol Myers Squibb, Eli Lilly, Janssen-Cilag, LEO Pharma, Novartis, Pfizer, and UCB Pharma. **JW:** Received research grants from: AbbVie, Amgen, Avillion, Boehringer Ingelheim, Bristol Myers Squibb, ChemoCentryx, Dermira, GSK, InflaRx, LEO Pharma, Janssen, Novartis, Pfizer, Regeneron, Sanofi, and UCB Pharma; consulting: AbbVie, Janssen, Novartis, Regeneron, Sanofi, and UCB Pharma; speaker's bureau: AbbVie, Janssen, Novartis, Regeneron, and Sanofi. **LP, BS, FS:** Employees & shareholders of UCB Pharma. **VC:** Employee of UCB Pharma. **WHB:** Received honoraria as a speaker and/or advisor from Abbvie, Almirall, Bristol Myers Squibb, Celgene, Eli Lilly, Janssen, LEO Pharma, Novartis, 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 Susanne Wiegratz, MSc, UCB Pharma, Monheim, Germany for publication coordination, Natalie Nunez Gomez, MD, former employee of UCB Pharma, for critical review, Robert Jones, PhD, Costello Medical, Manchester, UK for medical writing and editorial assistance and the Design team at Costello Medical for graphic design assistance. All costs associated with development of this poster were funded by UCB Pharma.

## Conclusions

***High levels of cumulative clinical and HRQoL benefit were observed for patients who received continuous BKZ or who switched from SEC to BKZ upon entering the OLE.***

***Despite an increase in cumulative clinical and HRQoL benefit in patients who switched from SEC to BKZ at Week 48, the benefit through 96 weeks remained higher in patients randomised to BKZ.***

***These results demonstrate the rapid, high level, and durability of treatment responses that can be obtained with BKZ.***

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