# Bimekizumab improvement in three Dermatology Life Quality Index (DLQI) items capturing aspects most burdensome to patients with moderate to severe plaque psoriasis

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## OBJECTIVES:

- To identify the most burdensome aspects captured by the DLQI for patients with moderate to severe plaque psoriasis.
- To assess improvements in these burdensome aspects among patients treated with bimekizumab (BKZ) over 3 years.

## Background:

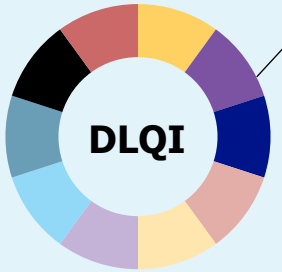
- BKZ is a monoclonal IgG1 antibody which selectively inhibits interleukin (IL)-17F in addition to IL-17A.[1]
- The commonly-used, 10-item DLQI patient-reported questionnaire measures the impact of skin disease on patients' lives.[2]

## Methods:

- Data from BKZ-treated patients were pooled from the 52-week BE VIVID and 56-week BE SURE and BE READY phase 3 trials, and their common open-label extension (OLE) BE BRIGHT.[3–6]
- Proportions of patients scoring 0 in key DLQI items for psoriasis patients are reported to Year 3 using modified non-responder imputation (mNRI), and changes in DLQI score distributions over time are reported using observed case (OC) data.

## Dermatology Life Quality Index (DLQI)

Established PRO measure, assesses the impact of skin disease on health-related quality of life




**10 items**; each item scored according to perception of its life impact over the last week, from 0 ('not at all'/'not relevant') to 3 ('very much'):[2]

1. Itchy/sore/painful/stinging skin
2. Embarrassment/ self-consciousness
3. Shopping, housework, gardening
4. Clothing choice
5. Social or leisure activities
6. Sport
7. Working or studying
8. Problems with partner, friends, or relatives
9. Sexual difficulties
10. Treatment

**1.** Adams R et al. Front Immunol 2020;11:1894; **2.** Finlay AY & Khan GK. Clin Exp Dermatol 1994;19:210–6; **3.** Reich K et al. Lancet 2021;397:487–98, NCT03370133; **4.** Warren RB et al. N Engl J Med 2021;385:130–41, NCT03412747; **5.** Gordon KB et al. Lancet 2021;397:475–86, NCT03410992; **6.** Strober B et al. Br J Dermatol 2023;188:749–59, NCT03598790. BKZ: bimekizumab; DLQI: Dermatology Life Quality Index, IL; interleukin; mNRI: modified non-responder imputation; OC: observed case; OLE: open-label extension; PRO: patient-reported outcome.

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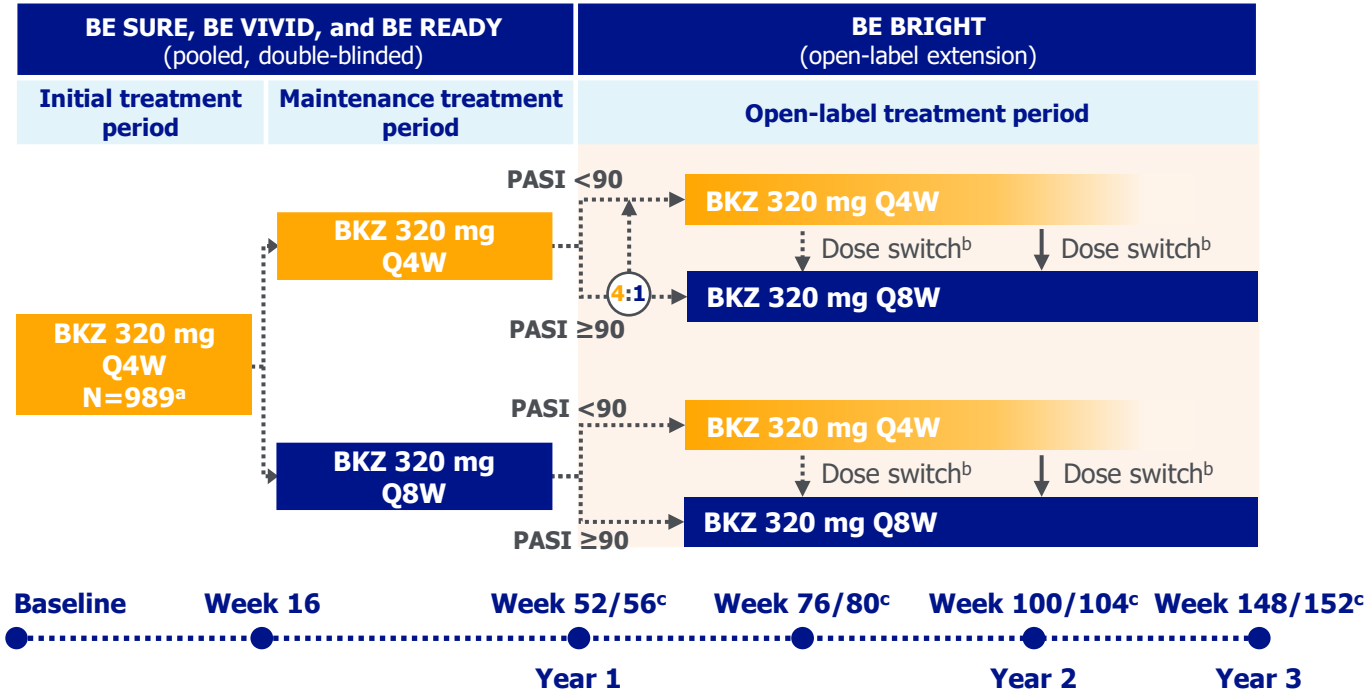
# Study Design




- Of the patients randomized to BKZ Q4W at baseline, 771 continued to receive BKZ throughout the maintenance treatment period and into the OLE. These patients were analyzed here, regardless of BKZ dosing regimen (**BKZ Total**).
- The subset of patients who received **BKZ Q4W/Q8W/Q8W** (initial/maintenance/OLE) dosing were also analyzed (N=197).

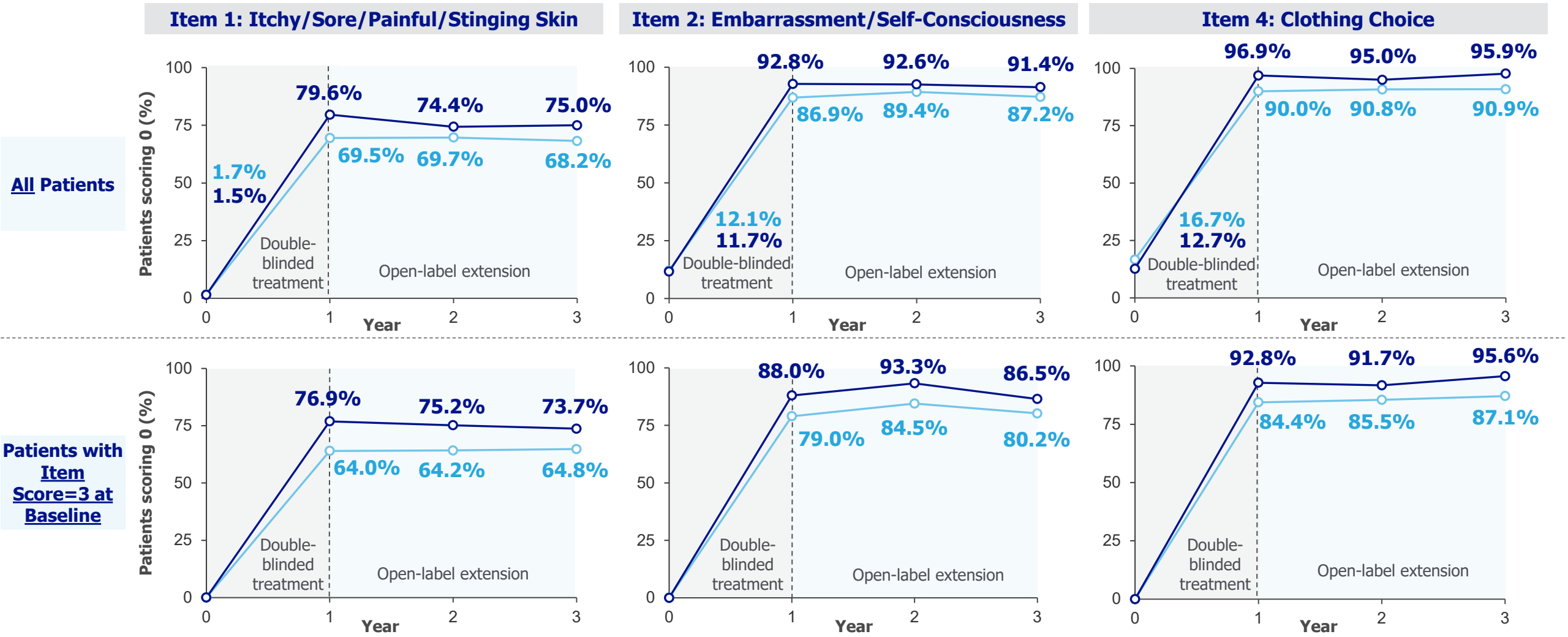
# Baseline DLQI Scores[d]

| | BKZ Total N=771 | BKZ Q4W/Q8W/Q8W N=197 |
|---|---|---|
| **DLQI total score,** mean ± SD | 10.5 ± 6.3 | 10.8 ± 6.0 |
| **Individual item scores,** mean ± SD<br>Score of 0, n (%) | | |
| **Item 1 – Itchy/sore/painful/ stinging skin** | 2.0 ± 0.8<br>13 (1.7) | 2.0 ± 0.8<br>3 (1.5) |
| **Item 2 – Embarrassment/ self-consciousness** | 1.7 ± 1.0<br>93 (12.1) | 1.8 ± 1.0<br>23 (11.7) |
| **Item 3 – Shopping, housework, gardening** | 0.7 ± 0.9<br>399 (51.8) | 0.7 ± 0.8<br>102 (51.8) |
| **Item 4 – Clothing choice** | 1.7 ± 1.1<br>129 (16.7) | 1.9 ± 1.0<br>25 (12.7) |
| **Item 5 – Social or leisure activities** | 1.0 ± 1.0<br>285 (37.0) | 1.0 ± 0.9<br>63 (32.0) |
| **Item 6 – Sport** | 0.8 ± 1.0<br>399 (51.8) | 0.9 ± 1.0<br>98 (49.7) |
| **Item 7 – Working or studying** | 0.5 ± 0.8<br>494 (64.1) | 0.5 ± 0.8<br>128 (65.0) |
| **Item 8 – Problems with partner, friends, or relatives** | 0.6 ± 0.8<br>435 (56.4) | 0.6 ± 0.8<br>102 (51.8) |
| **Item 9 – Sexual difficulties** | 0.6 ± 0.9<br>496 (64.3) | 0.6 ± 0.8<br>125 (63.5) |
| **Item 10 – Treatment** | 0.9 ± 1.0<br>333 (43.2) | 0.9 ± 1.0<br>85 (43.1) |

Items 1, 2, and 4 had the **highest** mean scores and **lowest** proportions scoring 0 at baseline, indicating the **most burdensome aspects** of psoriasis

**[a]** In BE READY, some BKZ-randomized patients were re-randomized to PBO at Week 16. These patients were excluded from this analysis; **[b]** At Week 76/80 (OLE Week 24), patients achieving ≥PASI 90 could switch to Q8W at the investigator's discretion; all patients were re-assigned to BKZ Q8W at Week 100/104 (OLE Week 48) or the next scheduled visit via protocol amendment; **[c]** Different week numbers are presented due to different feeder study lengths; for example Week 52/56 refers to OLE Week 0, and corresponds to Week 52 in BE VIVID and Week 56 in BE SURE and BE READY; **[d]** Full baseline characteristics have been reported previously and were similar between the groups examined.[1] **1.** Lebwohl M et al. SKIN The Journal of Cutaneous Medicine 2024;8(1):s307. BKZ: bimekizumab; DLQI: Dermatology Life Quality Index; OLE: open-label extension; PASI: Psoriasis Area and Severity Assessment; PASI 90: ≥90% improvement from baseline in PASI; PBO: placebo; Q4W: every 4 weeks; Q8W: every 8 weeks; SD: standard deviation.

# Proportions of Patients Scoring 0 Over Time in Three DLQI Items Identified as Most Burdensome in Psoriasis (mNRI)

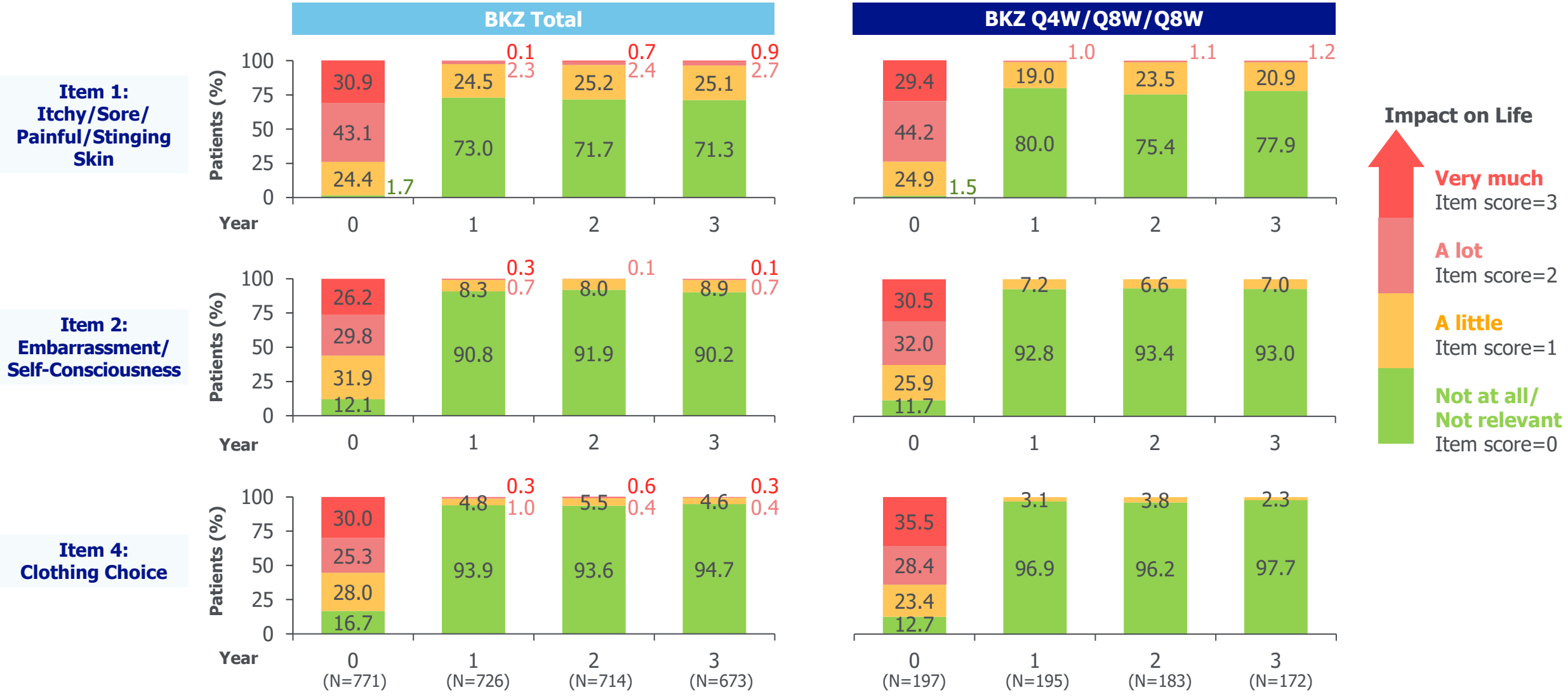



**BKZ Total** (N=771; scores of 3 at baseline: Item 1, n=238; Item 2, n=202; Item 4, n=231)

**BKZ Q4W/Q8W/Q8W** (N=197; scores of 3 at baseline: Item 1, n=58; Item 2, n=60; Item 4, n=70)

Data are shown for patients who were randomized to BKZ at baseline, received BKZ throughout the feeder study and into the OLE. For mNRI, patients who discontinued due to lack of efficacy or treatment-related adverse events were considered non-responders at subsequent timepoints; multiple imputation was used for all other missing data. Patients who entered the BE READY escape arm were considered as non-responders from the date of escape until the end of BE READY, after which they were considered in the same way as all other non-escape patients during the BE BRIGHT OLE.[1] **1.** Gordon KB et al. Lancet 2021;397:475–86, NCT03410992. BKZ: bimekizumab; DLQI: Dermatology Life Quality Index; mNRI: modified non-responder imputation; Q4W: every 4 weeks; Q8W: every 8 weeks.

# Proportions of Patients Scoring 0, 1, 2, or 3 Over Time in Three DLQI Items Identified as Most Burdensome in Psoriasis (OC)




Data are shown for patients who were randomized to BKZ at baseline, received BKZ throughout the feeder study and into the OLE, and who had a DLQI measurement at the respective visit. BKZ: bimekizumab; DLQI: Dermatology Life Quality Index; OC: observed case; OLE: open-label extension; Q4W: every 4 weeks; Q8W: every 8 weeks.

## CONCLUSIONS:

- The three Dermatology Life Quality Index items identified as capturing the most burdensome aspects of psoriasis were Item 1 (Itchy/sore/painful/stinging skin), Item 2 (Embarrassment/self-consciousness), and Item 4 (Clothing choice).
- Bimekizumab provided substantial improvements from baseline to Year 1 in these three items, which were sustained to Year 3.
- Results were consistent for patients who received bimekizumab 320 mg Q4W/Q8W/Q8W, the dosing regimen approved for the majority of patients.

**Author Contributions:** Substantial contributions to study conception/design, or acquisition/analysis/interpretation of data: **MA, JC, KAP, MS, SA, RW, BK, JL, BS, AA**; Drafting of the publication, or reviewing it critically for important intellectual content: **MA, JC, KAP, MS, SA, RW, BK, JL, BS, AA**; Final approval of the publication: **MA, JC, KAP, MS, SA, RW, BK, JL, BS, AA**. **Disclosures: MA:** Consulting fees from AbbVie, Almirall, Amgen, Biogen, Boehringer Ingelheim, Celgene, Centocor, Eli Lilly and Company, GSK, Hexal, Janssen, LEO Pharma, Medac, Merck, MSD, Mundipharma, Novartis, Pfizer, Sandoz, UCB Pharma, and Xenoport. **JC:** Advisor for AbbVie, Amgen, Arcutis, Bristol Myers Squibb, Dermavant, and Eli Lilly and Company; speaker for AbbVie, Amgen, Arcutis, Bristol Myers Squibb, Dermavant, Eli Lilly and Company, and Pfizer; clinical trials performed for AbbVie, Amgen, Bristol Myers Squibb, Celgene, ChemoCentryx, Eli Lilly and Company, Galderma, Janssen, LEO Pharma, Menlo Therapeutics, Sun Pharma, and UCB Pharma. **KAP:** Consultant for AbbVie, Akros, Amgen, Arcutis, Astellas, Bausch Health/Valeant, Baxalta, Boehringer Ingelheim, Bristol Myers Squibb, Can-Fite Biopharma, Celgene, Coherus, Dermira, DICE Therapeutics, Dow Pharma, Eli Lilly and Company, Evelo, Galapagos, Galderma, Genentech, Janssen, Kyowa Kirin, LEO Pharma, Meiji Seika Pharma, MSD, Merck Serono, Mitsubishi Pharma, Novartis, Pfizer, PRCL Research, Regeneron, Roche, Sanofi-Aventis/Genzyme, Takeda, and UCB Pharma; speakers bureau for AbbVie, Amgen, Bausch Health/Valeant, Celgene, Eli Lilly and Company, Galderma, Janssen, Kyowa Kirin, LEO Pharma, MSD, Novartis, Pfizer, and Sanofi-Aventis/Genzyme; clinical research grants from AbbVie, Akros, Amgen, Anacor, Arcutis, Astellas, Bausch Health/Valeant, Baxalta, Boehringer Ingelheim, Bristol Myers Squibb, Can-Fite Biopharma, Celgene, Coherus, Dermira, Dow Pharma, Eli Lilly and Company, Evelo, Galapagos, Galderma, Genentech, Gilead, GSK, Janssen, Kyowa Kirin, LEO Pharma, Medimmune, MSD, Merck Serono, Moberg Pharma, Novartis, Pfizer, PRCL Research, Regeneron, Roche, Sanofi-Aventis/Genzyme, Sun Pharma, Takeda, and UCB Pharma; honoraria from AbbVie, Akros, Amgen, Bausch Health/Valeant, Boehringer Ingelheim, Celgene, Coherus, Eli Lilly and Company, Galderma, Janssen, Kyowa Kirin, MSD, Merck Serono, Mitsubishi Pharma, Novartis, Pfizer, PRCL Research, Sanofi-Aventis/Genzyme, Takeda, and UCB Pharma; scientific officer for Akros, Anacor, Arcutis, DICE Therapeutics, and Kyowa Kirin; steering committee for AbbVie, Amgen, Bausch Health/Valeant, Boehringer Ingelheim, Celgene, Eli Lilly and Company, Janssen, Kyowa Kirin, MSD, Merck Serono, Novartis, Pfizer, Regeneron, and Sanofi-Aventis/Genzyme; advisory boards for AbbVie, Amgen, Astella, Bausch Health/Valeant, Boehringer Ingelheim, Bristol Myers Squibb, Celgene, Dow Pharma, Eli Lilly and Company, Galderma, Janssen, MSD, Novartis, Pfizer, Regeneron, Sanofi-Aventis/Genzyme, Sun Pharma, and UCB Pharma. **MS:** Received honoraria as an investigator, or received grants and has been an advisor/consultant for AbbVie, Affibody, Almirall, Boehringer Ingelheim, Bristol Myers Squibb, Celgene, Dermira, Dr. August Wolff, Dr. Reddy's Laboratories, Eli Lilly and Company, Galderma, Genentech, GSK, Incyte, Janssen, LEO Pharma, MedImmune, MSD, Mundipharma, Novartis, Pfizer, Regeneron, and UCB Pharma. **SA:** Speaker for AbbVie, Amgen, Boehringer Ingelheim, Daiichi-Sankyo, Janssen, Kyowa Kirin, LEO Pharma, Maruho, Novartis, Sanofi, Sun Pharma, Taiho, and UCB Pharma; clinical research grants from Sun Pharma and Taiho; clinical trials performed for AbbVie and UCB Pharma. **RW:** Veramed statistical consultant for UCB Pharma. **BH, JL, BS:** Employees and shareholders of UCB Pharma. **AA:** Served as a research investigator and/or scientific advisor for AbbVie, Almirall, Arcutis, ASLAN, Boehringer Ingelheim, Bristol Myers Squibb, Dermavant, Dermira, Eli Lilly and Company, EPI, Incyte, Janssen, LEO Pharma, Nimbus, Novartis, Ortho Dermatologics, Pfizer, Regeneron, Sun Pharma, Sanofi, and UCB Pharma. These studies were funded by UCB Pharma. We would like to thank the patients and their caregivers in addition to all the investigators and their teams who contributed to these studies. The authors acknowledge Susanne Wiegratz, MSc, UCB Pharma, Monheim, Germany, and Joe Dixon, PhD, UCB Pharma, Slough, UK, for publication coordination, and Isabel Raynaud, MBBS iBSc, Costello Medical, Cambridge, UK, for medical writing support and editorial assistance. All costs associated with development of this presentation were funded by UCB Pharma. Q4W: every 4 weeks; Q8W: every 8 weeks.