Bimekizumab Treatment in Biologic DMARD-Naïve Patients with Active Psoriatic Arthritis: 52-Week Efficacy and Safety Results from a Phase 3, Randomized, Placebo-Controlled, Active Reference Study

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ACR Convergence 2022 | 10–14 November

Presentation number: L02

Disclosures & Acknowledgements

Disclosures

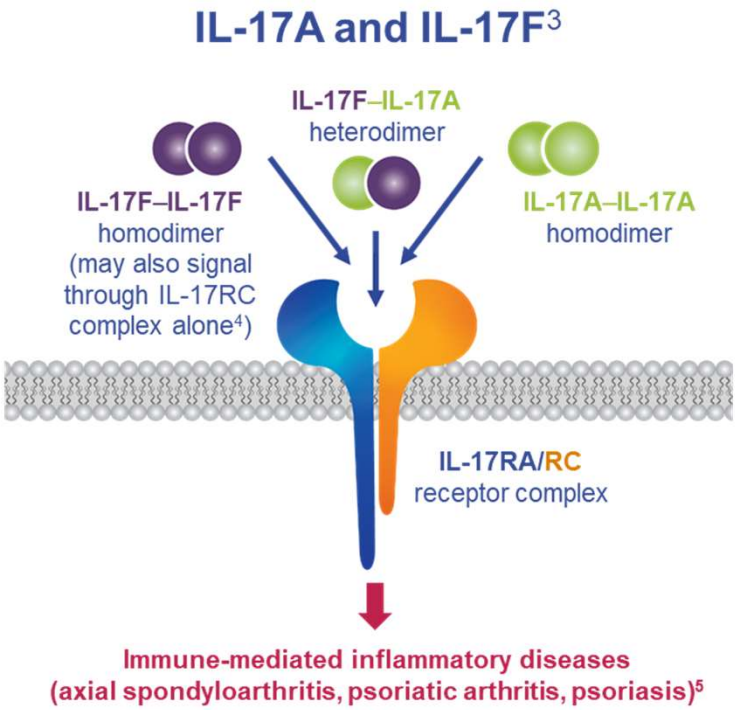
CTR: Research: AbbVie, Amgen, and UCB Pharma; consultant for Amgen, AbbVie, Eli Lilly, Gilead, Janssen, Novartis, Pfizer, and UCB Pharma. **LCC:** Grants/research support from AbbVie, Amgen, Celgene, Eli Lilly, Gilead, Janssen, Novartis, Pfizer, and UCB Pharma; paid consultant for AbbVie, Amgen, BMS, Boehringer Ingelheim, Celgene, Domain, Eli Lilly, Gilead, Galapagos, Janssen, MoonLake, Novartis, Pfizer, and UCB Pharma; paid as a speaker for AbbVie, Amgen, Biogen, Celgene, Eli Lilly, Galapagos, Gilead, GSK, Janssen, Medac, Novartis, Pfizer, and UCB Pharma. **IBM:** Consulting fees and honoraria from AbbVie, AstraZeneca, BMS, Boehringer Ingelheim, Cabaletta, Causeway Therapeutics, Celgene, Eli Lilly, Evelo, Janssen, MoonLake, Novartis, and UCB Pharma; research support from BMS, Boehringer Ingelheim, Celgene, Janssen, Novartis, and UCB Pharma. **PJM:** Research grants from AbbVie, Amgen, BMS, Eli Lilly, Gilead, Janssen, Novartis, Pfizer, Sun Pharma, and UCB Pharma; consultancy fees from AbbVie, Acelyrin, Aclaris, Amgen, BMS, Boehringer Ingelheim, Eli Lilly, Galapagos, Gilead, GSK, Janssen, MoonLake, Novartis, Pfizer, Sun Pharma, and UCB Pharma; speakers' bureau from AbbVie, Amgen, Eli Lilly, Janssen, Novartis, Pfizer, and UCB Pharma. **JFM:** Consultant and/or investigator for AbbVie, Amgen, Bayer, BMS, Dermavant, Eli Lilly, Janssen, LEO Pharma, Novartis, Pfizer, Sanofi, Sun Pharma, and UCB Pharma. **YT:** Speaking fees and/or honoraria from AbbVie, AstraZeneca, BMS, Boehringer Ingelheim, Chugai, Daiichi-Sankyo, Eisai, Eli Lilly, Gilead, GSK, Mitsubishi-Tanabe, and Pfizer; research grants from Asahi-Kasei, AbbVie, Boehringer Ingelheim, Chugai, Daiichi-Sankyo, Eisai, and Takeda. **AA:** Honoraria and/or research grants from AbbVie, Amgen, BMS, Boehringer Ingelheim, Eisai, Eli Lilly, Janssen, Kyowa Kirin, LEO Pharma, Maruho, Mitsubishi Tanabe Pharma, Pfizer, Sun Pharma, Taiho Pharma, Torii Pharmaceutical, and UCB Pharma. **LG:** Research grants from Amgen, Eli Lilly, Galapagos, Pfizer, Sandoz, and UCB Pharma; consulting fees from AbbVie, Amgen, BMS, Celltrion, Eli Lilly, Galapagos, Gilead, GSK, Janssen, Novartis, Pfizer, and UCB Pharma. **ABG:** Honoraria as an advisory board member, non-promotional speaker or consultant for Amgen, AnaptysBio, Avotres Therapeutics, BMS, Boehringer Ingelheim, Dermavant, Eli Lilly, Janssen, Novartis, Pfizer, Sanofi, Sun Pharma, UCB Pharma, and XBiotech (stock options for an RA project); research/educational grants from AnaptysBio, BMS, Janssen, Novartis, Ortho Dermatologics, Sun Pharma, and UCB Pharma; all funds go to the Icahn School of Medicine at Mount Sinai. **DT:** Honoraria for participation on advisory boards, as a speaker, and for consultancy from AbbVie, Almirall, Amgen, Biogen, BMS, Boehringer Ingelheim, Celltrion, Eli Lilly, Galapagos, Galderma, Janssen, LEO Pharma, Novartis, Pfizer, Regeneron, Sanofi Genzyme, Sun Pharma, and UCB Pharma; research grants received from LEO Pharma and Novartis. **BI:** Employee of UCB Pharma; stockholder of AbbVie, GSK, and UCB Pharma.
DA, RB, VS, JC: Employees and stockholders of UCB Pharma. **RL:** Consultancy fees from AbbVie, AstraZeneca, BMS, Eli Lilly, Novartis, Pfizer, and UCB Pharma; research grants from AbbVie, Novartis, Pfizer, and UCB Pharma; owner of Rheumatology Consultancy BV, an AMS company under Dutch law.

Acknowledgements

We would like to thank the patients and their caregivers in addition to all the investigators and their teams who contributed to this study. The authors acknowledge Heather Edens, PhD, UCB Pharma, Smyrna, Georgia, USA, for publication coordination, Sona Popat, BA, Costello Medical, London, UK for medical writing and editorial assistance, and the Costello Medical Design Team for design support. This study was funded by UCB Pharma. All costs associated with development of this presentation were funded by UCB Pharma.

Background & Objective

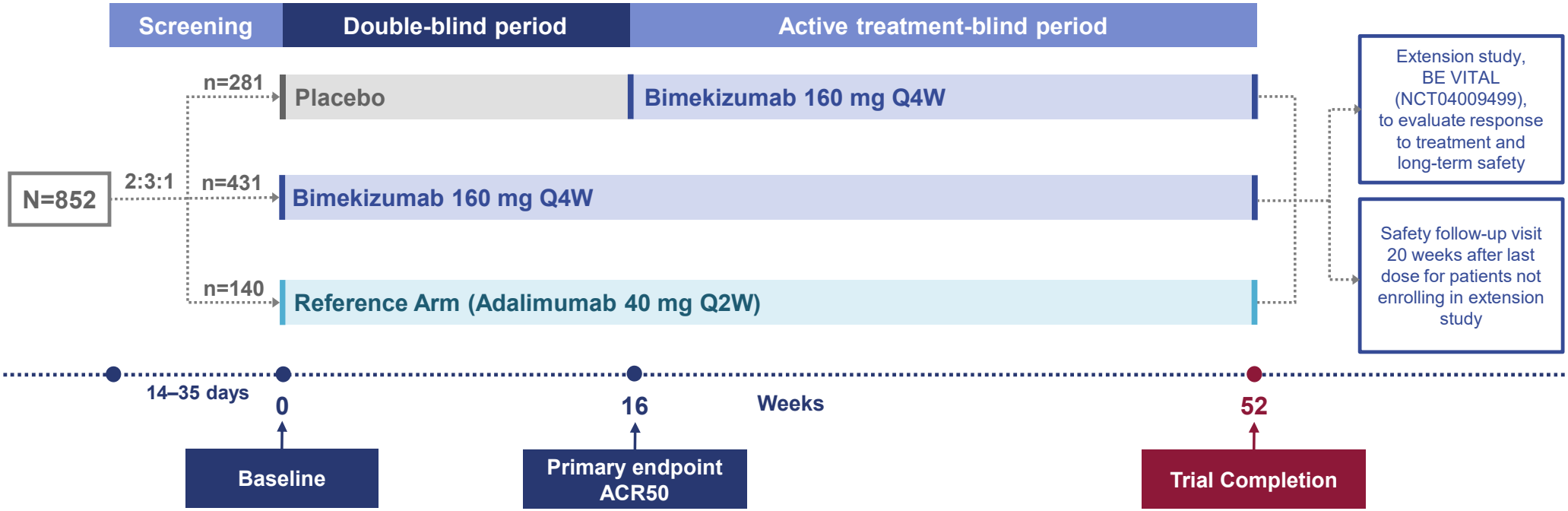
- **Bimekizumab** is a monoclonal IgG1 antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A.
- Bimekizumab has demonstrated **efficacy and tolerability** up to Week 24 in the pivotal phase 3 study, BE OPTIMAL, and was well tolerated up to 152 weeks in a phase 2b study in patients with active psoriatic arthritis (PsA).[1,2]



OBJECTIVE: To assess the long-term efficacy and safety of subcutaneous bimekizumab in biologic disease-modifying antirheumatic drug (bDMARD)-naïve patients with active PsA up to Week 52 in the pivotal phase 3 study, BE OPTIMAL (NCT03895203)

1. McInnes IB. Ann Rheum Dis 2022;81:206–7; **2.** Coates LC. Arthritis & Rheum 2022;10.1002/art.42280; **3.** Yang XO. J Exp Med 2008;1063–75; **4.** Goepfert A. Immunity 2020;52(3):499–512.e5;
5. Glatt S. Ann Rheum Dis 2018;77:523–32. bDMARD: biologic disease-modifying antirheumatic drug; Ig: immunoglobulin; IL: interleukin; PsA: psoriatic arthritis; RA: receptor A; RC: receptor C.

BE OPTIMAL Study Design



Key inclusion criteria

- ≥18 years of age with adult-onset PsA fulfilling CASPAR criteria with a duration of ≥6 months
- TJC ≥3/68 and SJC ≥3/66
- ≥1 active psoriatic lesions and/or a documented history of PSO

Key exclusion criteria

- Current or prior exposure to any biologics for treatment of PsA or PSO
- Active, symptomatic IBD at baseline or screening (prior history was not an exclusion criterion)

BKZ-treated patients were eligible to receive rescue therapy from Week 16 at the discretion of the investigator, while continuing to receive BKZ. ACR: American College of Rheumatology response criteria; BKZ: bimekizumab; CASPAR: Classification Criteria for Psoriatic Arthritis; IBD: inflammatory bowel disease; PsA: psoriatic arthritis; PSO: psoriasis; Q2W: every 2 weeks; Q4W: every 4 weeks; SJC: swollen joint count; TJC: tender joint count.

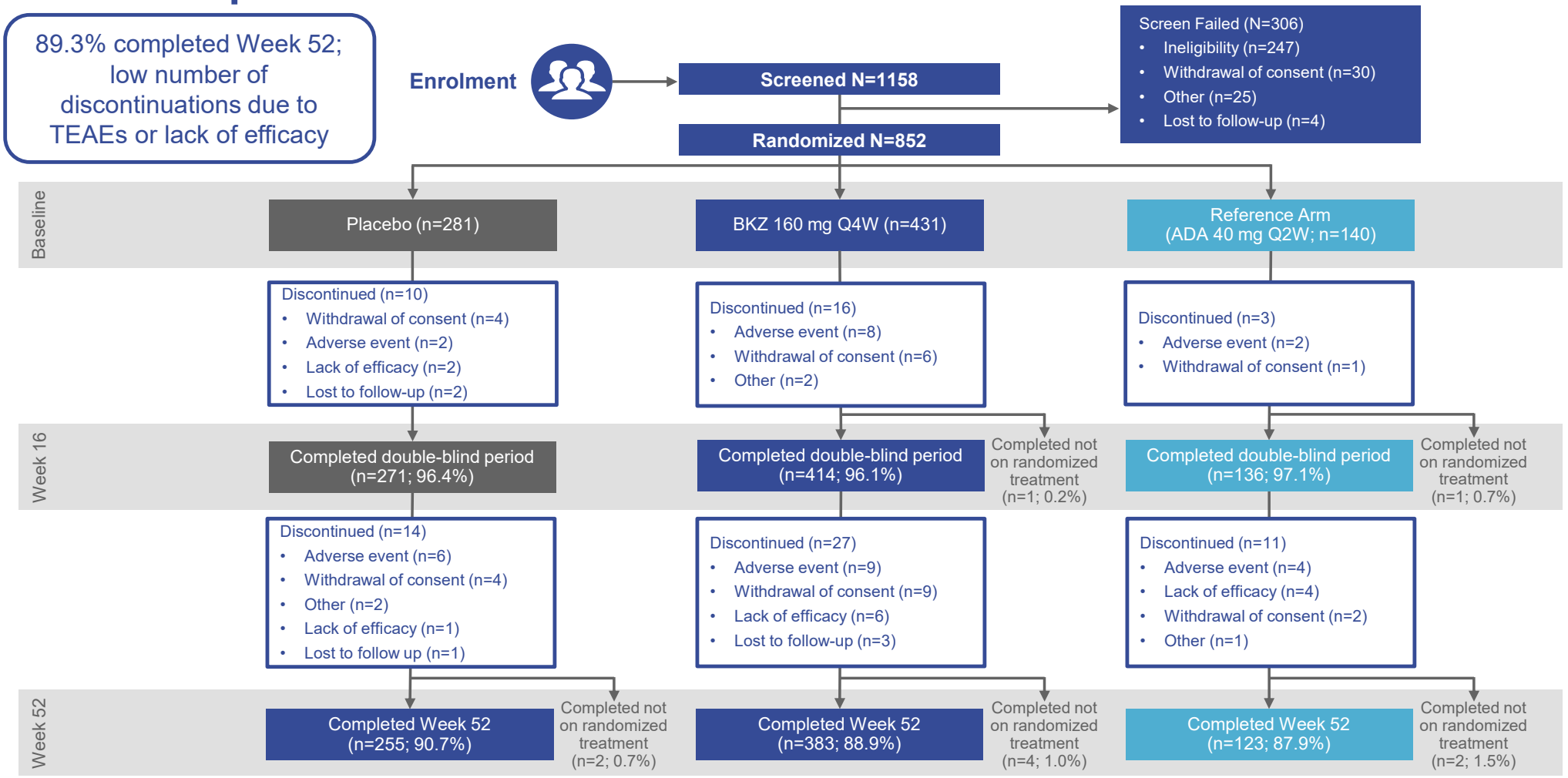
Patient Demographics and Baseline Disease Characteristics

	Placebo n=281	BKZ 160 mg Q4W n=431	Reference Arm (ADA 40 mg Q2W) n=140
Age, years, mean (SD)	48.7 (11.7)	48.5 (12.6)	49.0 (12.8)
Sex, male, n (%)	127 (45.2)	201 (46.6)	71 (50.7)
BMI, kg/m^2, mean (SD)	29.6 (6.1)	29.2 (6.8)	28.4 (5.9)
PsA duration,[a] years, mean (SD)	5.6 (6.5)	6.0 (7.3)	6.1 (6.8)
Concomitant methotrexate, n (%)	163 (58.0)	252 (58.5)	82 (58.6)
TJC (of 68 joints), mean (SD)	17.1 (12.5)	16.8 (11.8)	17.5 (13.1)
SJC (of 66 joints), mean (SD)	9.5 (7.3)	9.0 (6.2)	9.6 (7.1)
hs-CRP ≥6 mg/L, n (%)	121 (43.1)	158 (36.7)	44 (31.4)
Psoriasis BSA ≥3%, n (%)	140 (49.8)	217 (50.3)	68 (48.6)
PASI score,[b] mean (SD)	7.9 (5.6)	8.2 (6.8)	8.5 (7.6)
HAQ-DI,[c] mean (SD)	0.89 (0.61)	0.82 (0.59)	0.86 (0.54)
SF-36 PCS,[d] mean (SD)	36.9 (9.7)	38.1 (9.4)	37.6 (8.8)
vdHmTSS (at risk subgroup),[e,f] mean (SD)	14.5 (23.9)	14.4 (32.0)	16.5 (28.4)
vdHmTSS (overall),[e,g] mean (SD)	12.3 (22.5)	12.5 (30.0)	13.8 (26.5)
Enthesitis,[h] n (%) Score, mean (SD)	70 (24.9) 2.9 (1.5)	143 (33.2) 2.5 (1.5)	36 (25.7) 2.3 (1.6)
Dactylitis,[i] n (%) Score, mean (SD)	33 (11.7) 47.3 (41.1)	56 (13.0) 46.7 (54.3)	11 (7.9) 49.7 (31.9)

Randomized set. [a] Listed as time since diagnosis of PsA, data missing for 2 placebo patients, 8 BKZ patients, 1 ADA patient; [b] In patients with psoriasis involving ≥3% BSA at baseline; [c] Data missing for 1 BKZ patient; [d] Data missing for 1 BKZ patient and 1 ADA patient; [e] Radiographic set; [f] At-risk subgroup defined as patients with elevated hs-CRP (≥6 mg/L) and/or ≥1 bone erosion at baseline, placebo n=227, BKZ n=361, ADA n=112; [g] Placebo n=269, BKZ n=420, ADA n=135; [h] Leeds Enthesitis Index >0; data missing for 6 BKZ patients, 1 ADA patient; [i] Leeds Dactylitis Index >0; data missing for 1 placebo patient, 7 BKZ patients, 1 ADA patient. ADA: adalimumab; BKZ: bimekizumab; BMI: body mass index; BSA: body surface area; HAQ-DI: Health Assessment Questionnaire-Disability Index; hs-CRP: high-sensitivity C-reactive protein; PASI: Psoriasis Area and Severity Index; PCS: Physical Component Summary; PsA: psoriatic arthritis; Q2W: every 2 weeks; Q4W: every 4 weeks; SD: standard deviation; SF-36: Short-Form 36-item Health Survey; SJC: swollen joint count; TJC: tender joint count; vdHmTSS: van der Heijde-modified Total Sharp Score.

Patient Disposition to Week 52

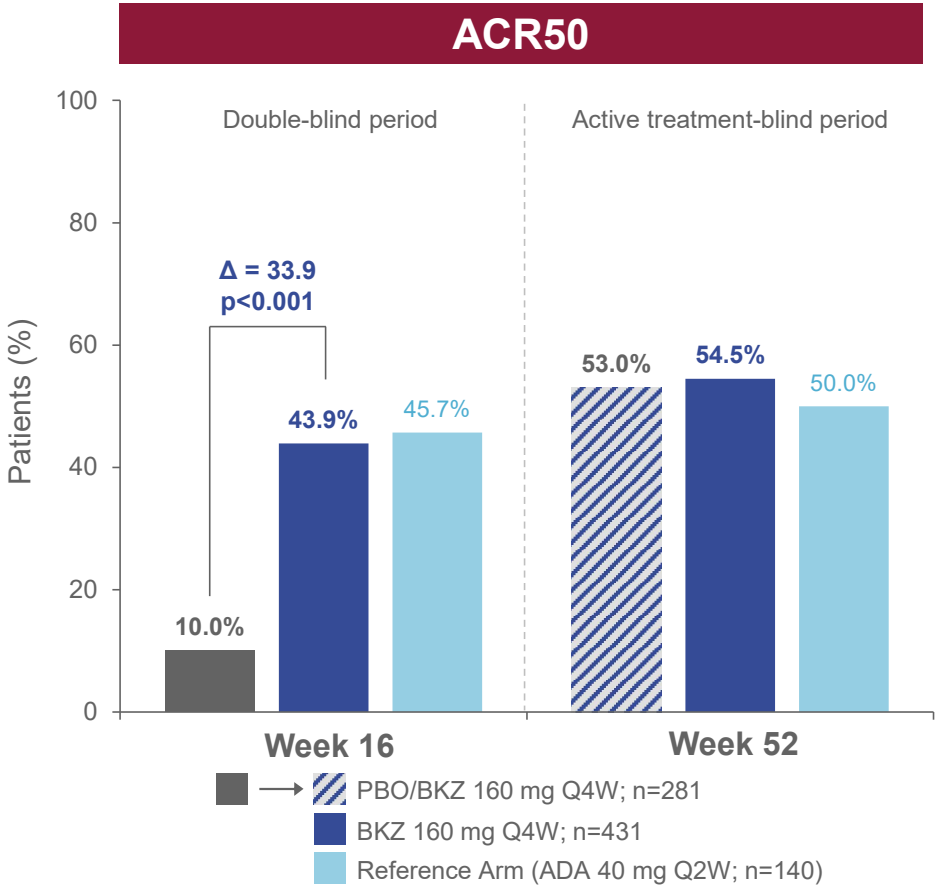
89.3% completed Week 52; low number of discontinuations due to TEAEs or lack of efficacy

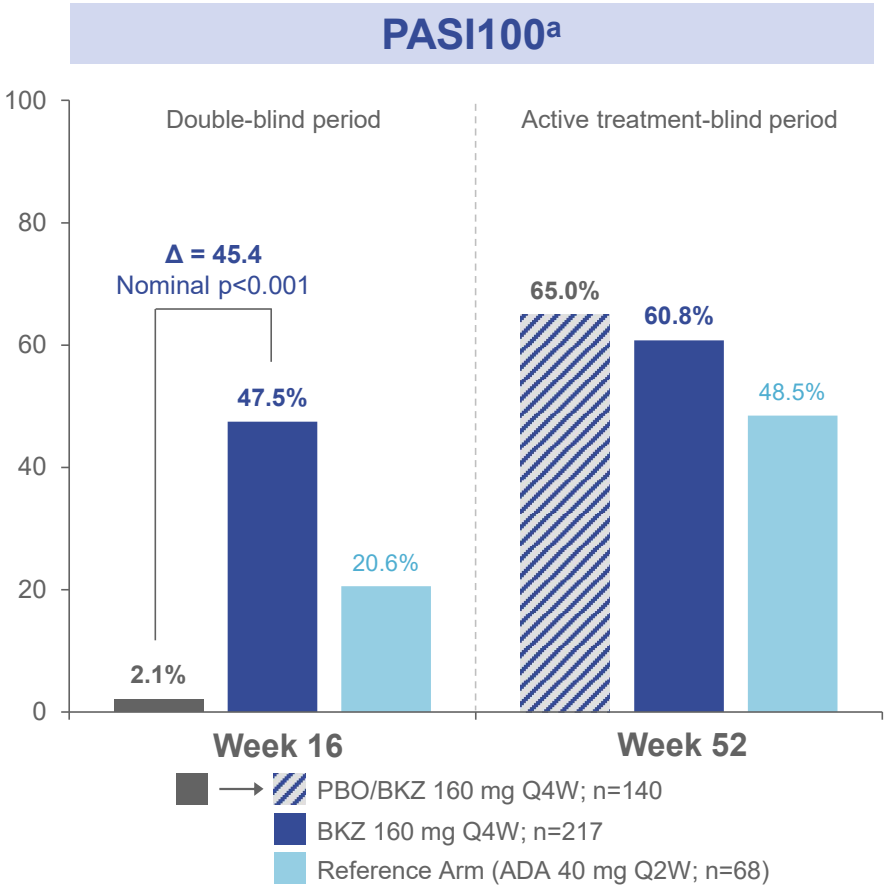


Patients who withdrew from the study medication but returned for all scheduled visits up to Week 16 or 52 were considered as having completed the treatment period not on randomized treatment.
ADA: adalimumab; BKZ: bimekizumab; Q2W: every 2 weeks; Q4W: every 4 weeks; TEAE: treatment-emergent adverse event.

Efficacy: ACR50 and PASI100 Responses at Week 52 (NRI)

Joint and skin efficacy responses were sustained from Week 16 to Week 52 in patients with PsA treated with bimekizumab

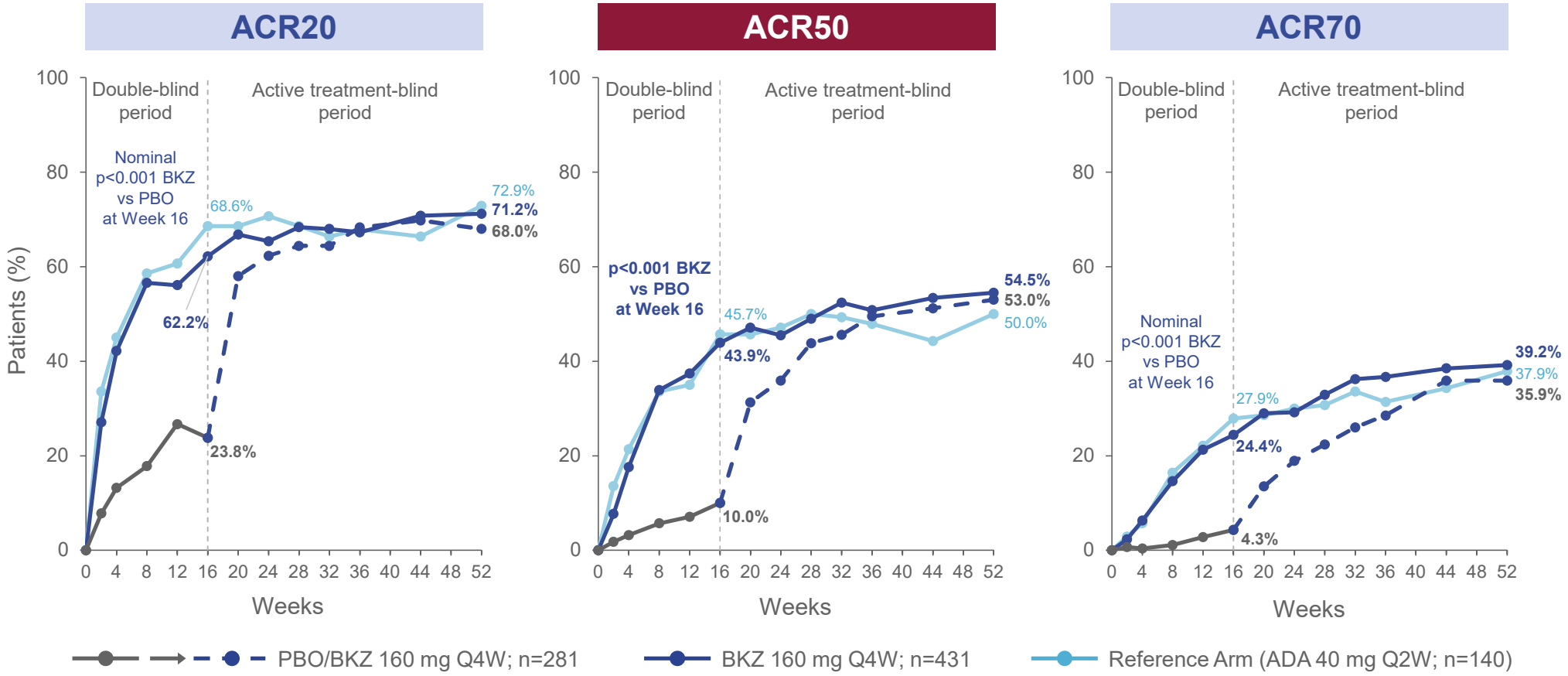




Randomized set. p value was calculated using a logistic regression model with treatment, bone erosion at baseline, and region as stratification factors. Nominal p values are not powered or adjusted for multiplicity and should not be used to assess statistical significance. The study was not powered for statistical comparisons of ADA to BKZ or PBO. [a] In patients with PSO involving ≥3% BSA at baseline. ACR50: American College of Rheumatology criteria ≥50% response; ADA: adalimumab; BKZ: bimekizumab; BSA: body surface area; NRI: non-responder imputation; PASI100: 100% improvement in Psoriasis Area and Severity Index; PBO: placebo; PsA: psoriatic arthritis; PSO: psoriasis; Q2W: every 2 weeks; Q4W: every 4 weeks.

ACR Responses Over Time to Week 52 (NRI)

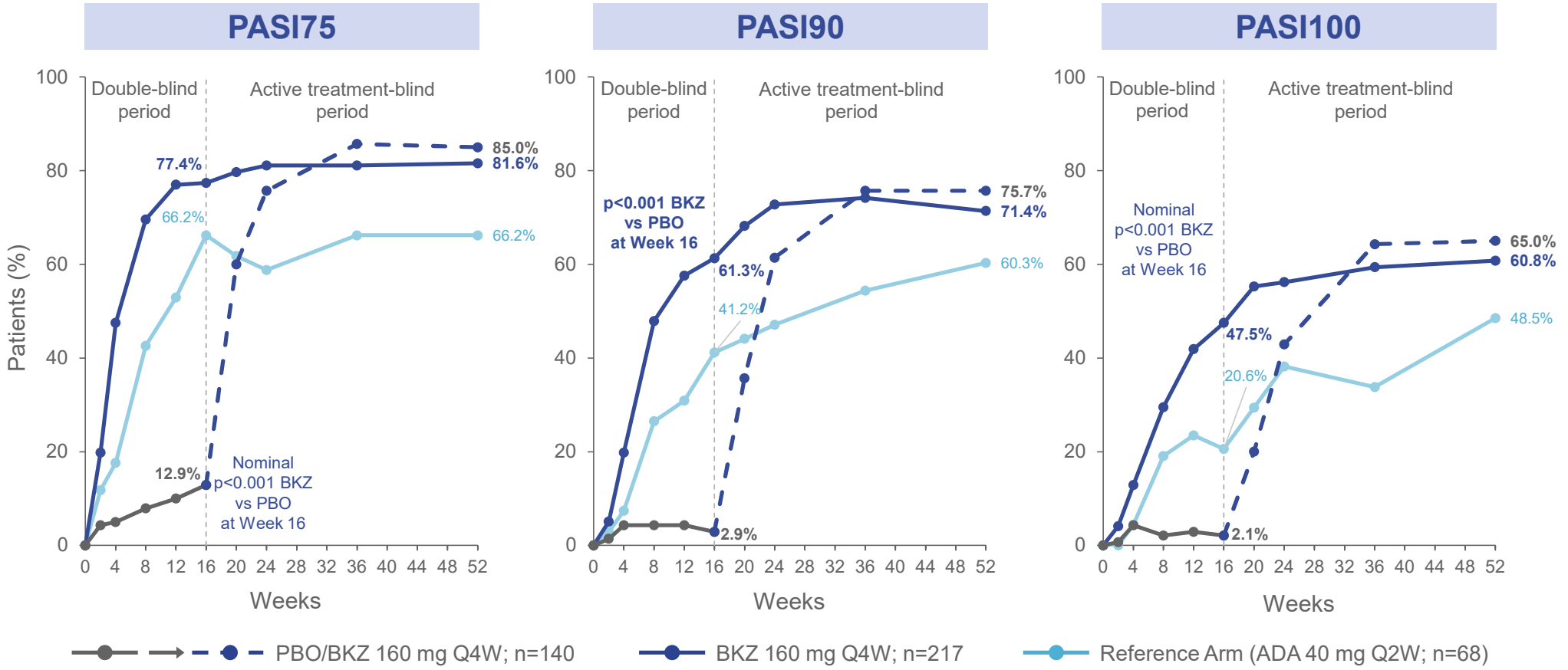
Bimekizumab treatment demonstrated sustained joint efficacy responses from Week 16 to Week 52 in patients with PsA



Randomized set. p value was calculated using a logistic regression model with treatment, bone erosion at baseline, and region as stratification factors. Nominal p values are not powered or adjusted for multiplicity and should not be used to assess statistical significance. The study was not powered for statistical comparisons of ADA to BKZ or PBO. ACR20/50/70: American College of Rheumatology criteria ≥20/50/70% response; ADA: adalimumab; BKZ: bimekizumab; NRI: non-responder imputation; PBO: placebo; PsA: psoriatic arthritis; Q2W: every 2 weeks; Q4W: every 4 weeks.

PASI Responses Over Time to Week 52 (NRI)

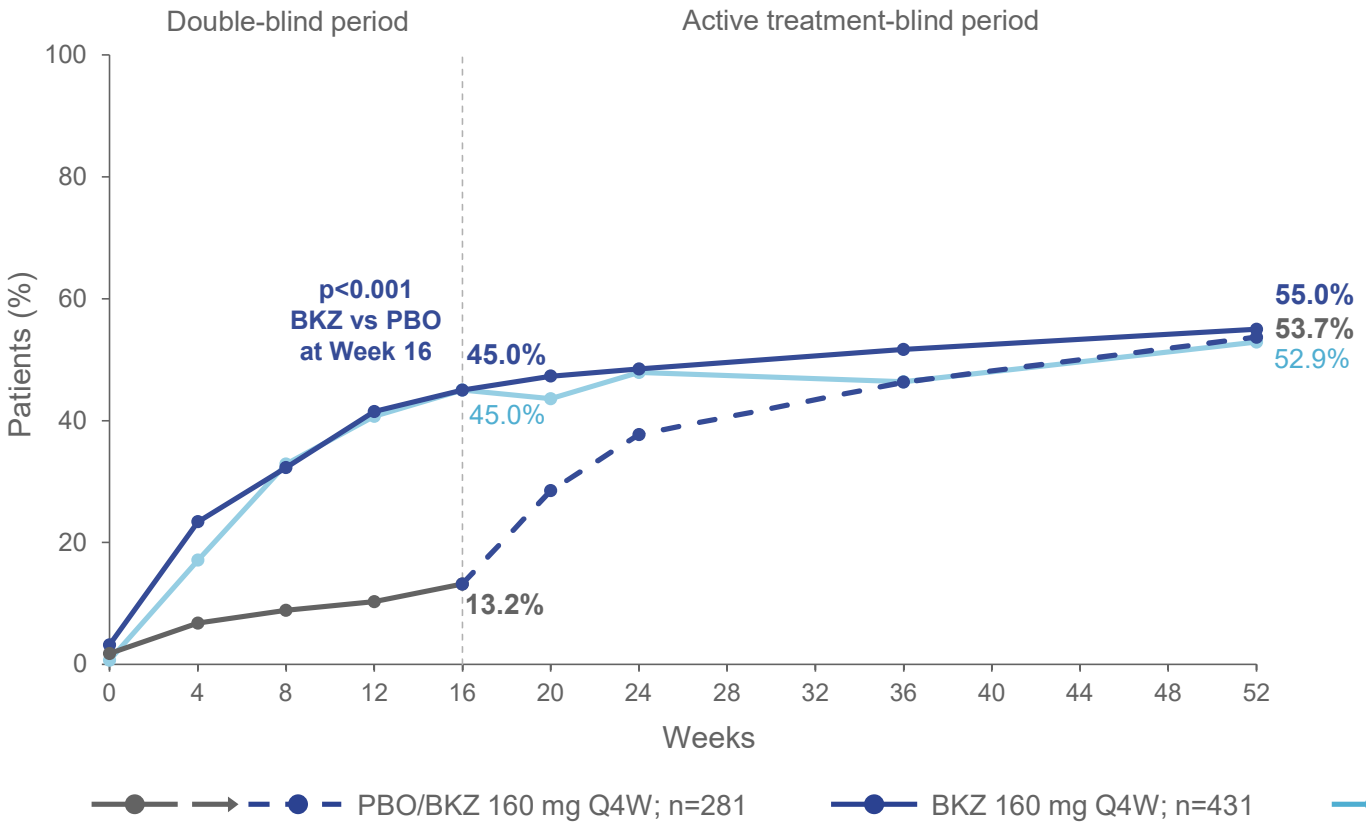
Bimekizumab treatment demonstrated sustained skin efficacy responses from Week 16 to Week 52 in patients with PsA



Randomized set, in patients with PSO involving ≥3% BSA at baseline. p value was calculated using a logistic regression model with treatment, bone erosion at baseline, and region as stratification factors. Nominal p values are not powered or adjusted for multiplicity and should not be used to assess statistical significance. The study was not powered for statistical comparisons of ADA to BKZ or PBO. ADA: adalimumab; BKZ: bimekizumab; BSA: body surface area; NRI: non-responder imputation; PASI75/90/100: ≥75/90/100% improvement in Psoriasis Area and Severity Index; PBO: placebo; PsA: psoriatic arthritis; PSO: psoriasis; Q2W: every 2 weeks; Q4W: every 4 weeks.

MDA Over Time to Week 52 (NRI)

Bimekizumab treatment demonstrated sustained improvements in the MDA composite spanning several domains of disease



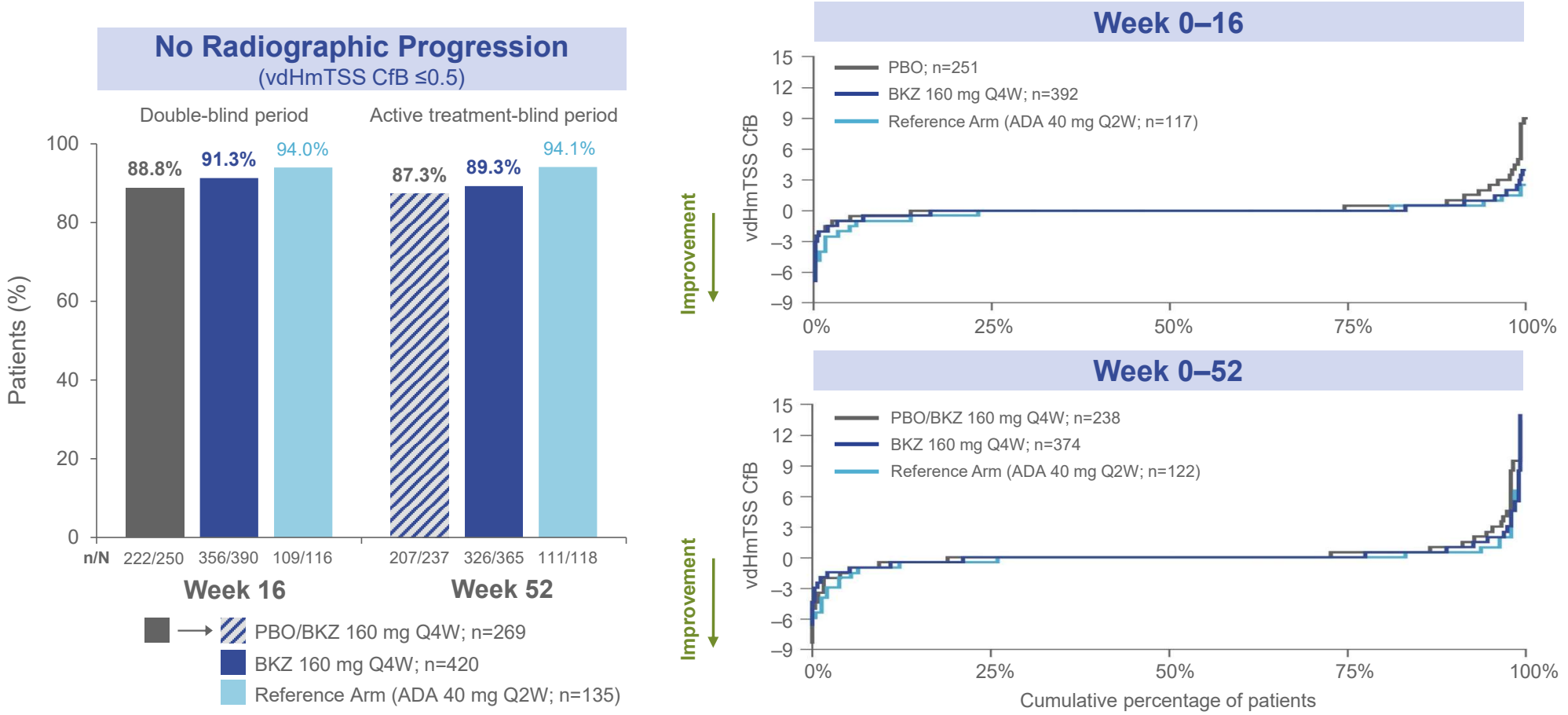
MDA response defined as achievement of at least 5 of the 7 following criteria:

- Tender joint count ≤1
- Swollen joint count ≤1
- Psoriasis Area and Severity Index ≤1[a] or body surface area ≤3%[b]
- Patient's Assessment of Arthritis Pain (VAS) ≤15 mm
- Patient global assessment-PsA (VAS) ≤20 mm
- Health Assessment Questionnaire Disability Index ≤0.5
- Tender entheseal points ≤1

Randomized set. p value was calculated using a logistic regression model with treatment, bone erosion at baseline, and region as stratification factors. The study was not powered for statistical comparisons of ADA to BKZ or PBO. [a] For patients with PSO involving ≥3% of BSA at baseline; [b] Patients with PSO involving <3% of BSA at baseline will always meet the criteria PASI ≤1 or BSA ≤3% except in the cases where a BSA score >3% is observed. ADA: adalimumab; BKZ: bimekizumab; MDA: Minimal Disease Activity; NRI: non-responder imputation; PBO: placebo; PsA: psoriatic arthritis; PSO: psoriasis; Q2W: every 2 weeks; Q4W: every 4 weeks; VAS: visual analog scale.

Inhibition of Radiographic Progression from Baseline to Week 16 and Week 52 (OC)

Radiographic progression was minimal to Week 52 in the majority of bimekizumab-treated patients



Radiographic set consists of patients in the randomized set with valid radiographic imaging of hands and feet at screening, assessed by ≥2 reviewers. ADA: adalimumab; BKZ: bimekizumab; CfB: change from baseline; hs-CRP: high-sensitivity C-reactive protein; OC: observed case; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks; vdHmTSS: van der Heijde-modified Total Sharp Score.

Safety to Week 16 and Week 52

n (%)	Week 0–16			Week 0–52	
	Placebo n=281	BKZ 160 mg Q4W n=431	Reference Arm (ADA 40 mg Q2W) n=140	BKZ 160 mg Q4W Total n=702[a]	Reference Arm (ADA 40 mg Q2W) n=140
Any TEAE	139 (49.5)	257 (59.6)	83 (59.3)	555 (79.1)	113 (80.7)
Serious TEAEs	3 (1.1)	8 (1.9)	2 (1.4)	46 (6.6)	10 (7.1)
Discontinuation due to TEAEs	3 (1.1)	8 (1.9)	3 (2.1)	21 (3.0)	7 (5.0)
Drug-related TEAEs	35 (12.5)	100 (23.2)	34 (24.3)	224 (31.9)	54 (38.6)
Severe TEAEs	0	4 (0.9)	3 (2.1)	23 (3.3)	9 (6.4)
Deaths	0	0	0	1 (0.1)[b]	0
Most frequently reported TEAEs (≥5% in any treatment arm)[c]					
Nasopharyngitis	13 (4.6)	40 (9.3)	7 (5.0)	84 (12.0)	12 (8.6)
Upper respiratory tract infection	18 (6.4)	22 (5.1)	3 (2.1)	50 (7.1)	8 (5.7)
Urinary tract infection	4 (1.4)	9 (2.1)	3 (2.1)	43 (6.1)	5 (3.6)
Headache	7 (2.5)	19 (4.4)	2 (1.4)	41 (5.8)	6 (4.3)
Oral candidiasis[d]	0	9 (2.1)	0	38 (5.4)	1 (0.7)
Diarrhea	7 (2.5)	16 (3.7)	5 (3.6)	36 (5.1)	7 (5.0)
Hypertension	11 (3.9)	12 (2.8)	4 (2.9)	29 (4.1)	9 (6.4)
ALT elevation	2 (0.7)	3 (0.7)	7 (5.0)	16 (2.3)	11 (7.9)
AST elevation	2 (0.7)	1 (0.2)	4 (2.9)	14 (2.0)	7 (5.0)
Injection site erythema	0	1 (0.2)	4 (2.9)	6 (0.9)	7 (5.0)
TEAEs of special interest					
Candida infections[d]	2 (0.7)	11 (2.6)	0	54 (7.7)	1 (0.7)
Serious Infections	0	1 (0.2)	1 (0.7)	6 (0.9)	2 (1.4)
Adjudicated MACE	0	0	0	4 (0.6)[f]	0
Definite adjudicated IBD	0	0	0	2 (0.3)[g]	0
Malignancies	1 (0.4)	1 (0.2)	0	7 (1.0)	0
Non-melanoma skin cancer	0	1 (0.2)	0	4 (0.6)	0

Safety set, MedDRA (Version 19.0). [a] Includes patients who switched from placebo to BKZ (events after switch only); [b] Motorcycle accident; [c] TEAEs ≥5% in any treatment arm are reported by preferred term; [d] All infections were mild to moderate and none were serious, 1 BKZ patient discontinued; [e] No fungal infections were systemic; [f] 1 myocardial infarction; 1 cerebrovascular accident; 1 ischemic stroke; 1 thrombotic cerebral infarction; [g] Both ulcerative colitis; one in a patient with a prior history of IBD, the other de novo. ADA: adalimumab; ALT: alanine aminotransferase; AST: aspartate aminotransferase; BKZ: bimekizumab; IBD: inflammatory bowel disease; MACE: major adverse cardiovascular event; n: number of patients reporting at least one TEAE in that category; Q2W: every 2 weeks; Q4W: every 4 weeks; TEAE: treatment-emergent adverse event.

Conclusions

- The phase 3 BE OPTIMAL study demonstrated long-term efficacy and tolerability of IL-17A and IL-17F inhibition with bimekizumab treatment in bDMARD-naïve patients with PsA.
- Bimekizumab-treated patients with PsA demonstrated efficacy across both joint and skin outcomes, which were sustained from Week 16 to Week 52.
- Bimekizumab treatment inhibited radiographic progression to Week 52.
- Bimekizumab was well tolerated, and the safety profile was consistent with prior studies.[1–3]

1. Coates LC. Arthritis & Rheum 2022;10.1002/art.42280; **2.** McInnes IB. Ann Rheum Dis 2022;81:206–7; **3.** Merola JF Ann Rheum Dis 2022;81:167–8. bDMARD: biologic disease-modifying antirheumatic drug; IL: interleukin; PsA: psoriatic arthritis.

Thank You

Any Questions?

Additional Data

Safety: Fungal Infections (1/2)

n (%)	Week 0–16			Week 0–52	
	Placebo n=281	BKZ 160 mg Q4W n=431	Reference Arm (ADA 40 mg Q2W) n=140	BKZ 160 mg Q4W Total n=702[a]	Reference Arm (ADA 40 mg Q2W) n=140
Fungal Infections	4 (1.4)	20 (4.6)	1 (0.7)	82 (11.7)	2 (1.4)
Candida infections	2 (0.7)	11 (2.6)	0	54 (7.7)	1 (0.7)
Oral candidiasis	0	9 (2.1)	0	38 (5.4)	1 (0.7)
Vulvovaginal candidiasis	2 (0.7)	1 (0.2)	0	8 (1.1)	0
Esophageal candidiasis	0	0	0	4 (0.6)	0
Skin candida	0	1 (0.2)	0	3 (0.4)	0
Oropharyngeal candidiasis	0	0	0	2 (0.3)	0
Serious *Candida* infections	0	0	0	0	0
Candida infections leading to study discontinuation	0	1 (0.2)	0	1 (0.1)	0

- There were no **severe cases** of *Candida* infection to Week 52
- There were no **systemic** *Candida* infections to Week 52

Safety set, MedDRA (Version 19.0). [a] Includes patients who switched from placebo to BKZ (events after switch only). ADA: adalimumab; BKZ: bimekizumab; Q2W: every 2 weeks; Q4W: every 4 weeks.

Safety: Fungal Infections (2/2)

n (%)	Week 0–16			Week 0–52	
	Placebo n=281	BKZ 160 mg Q4W n=431	Reference Arm (ADA 40 mg Q2W) n=140	BKZ 160 mg Q4W Total n=702[a]	Reference Arm (ADA 40 mg Q2W) n=140
Fungal Infections	4 (1.4)	20 (4.6)	1 (0.7)	82 (11.7)	2 (1.4)
Fungal infections NEC	2 (0.7)	9 (2.1)	0	29 (4.1)	0
Fungal skin infection	0	3 (0.7)	0	10 (1.4)	0
Oral fungal infection	0	2 (0.5)	0	10 (1.4)	0
Vulvovaginal mycotic infection	2 (0.7)	0	0	7 (1.0)	0
Tongue fungal infection	0	3 (0.7)	0	3 (0.4)	0
Onychomycosis	0	1 (0.2)	0	1 (0.1)	0
Fungal esophagitis	0	0	0	1 (0.1)	0
Laryngitis fungal	0	0	0	1 (0.1)	0
Upper respiratory fungal infection	0	0	0	1 (0.1)	0
Tinea infections	0	0	1 (0.7)	7 (1.0)	1 (0.7)
Tinea versicolour	0	0	1 (0.7)	3 (0.4)	1 (0.7)
Tinea pedis	0	0	0	2 (0.3)	0
Body tinea	0	0	0	1 (0.1)	0
Tinea infection	0	0	0	1 (0.1)	0

Safety set, MedDRA (Version 19.0). [a] Includes patients who switched from placebo to BKZ (events after switch only). ADA: adalimumab; BKZ: bimekizumab; NEC: not elsewhere classified; Q2W: every 2 weeks; Q4W: every 4 weeks.

Safety: Other Topics of Interest

n (%)	Week 0–16			Week 0–52	
	Placebo n=281	BKZ 160 mg Q4W n=431	Reference Arm (ADA 40 mg Q2W) n=140	BKZ 160 mg Q4W Total n=702[a]	Reference Arm (ADA 40 mg Q2W) n=140
Infections	56 (19.9)	131 (30.4)	35 (25.0)	341 (48.6)	59 (42.1)
Serious	0	1 (0.2)	1 (0.7)	6 (0.9)	2 (1.4)
Opportunistic	0	0	1 (0.7)	9 (1.3)	1 (0.7)
Active TB	0	0	0	0	0
Injection site reactions	3 (1.1)	5 (1.2)	7 (5.0)	15 (2.1)	13 (9.3)
Malignancies[b]	1 (0.4)	1 (0.2)	0	7 (1.0)	0
Breast cancer stage I	1 (0.4)	0	0	0	0
Colon cancer	0	0	0	1 (0.1)	0
Chronic lymphocytic leukemia stage 0	0	0	0	1 (0.1)	0
Papillary thyroid cancer	0	0	0	1 (0.1)	0
Non-melanoma skin cancer	0	1 (0.2)	0	4 (0.6)	0
Basal cell carcinoma	0	1 (0.2)	0	3 (0.4)	0
Squamous cell carcinoma	0	0	0	1 (0.1)	0

Safety set, MedDRA (Version 19.0). [a] Includes patients who switched from placebo to BKZ (events after switch only); [b] Excluding unspecified tumors. ADA: adalimumab; BKZ: bimekizumab; Q2W: every 2 weeks; Q4W: every 4 weeks; TB: tuberculosis.

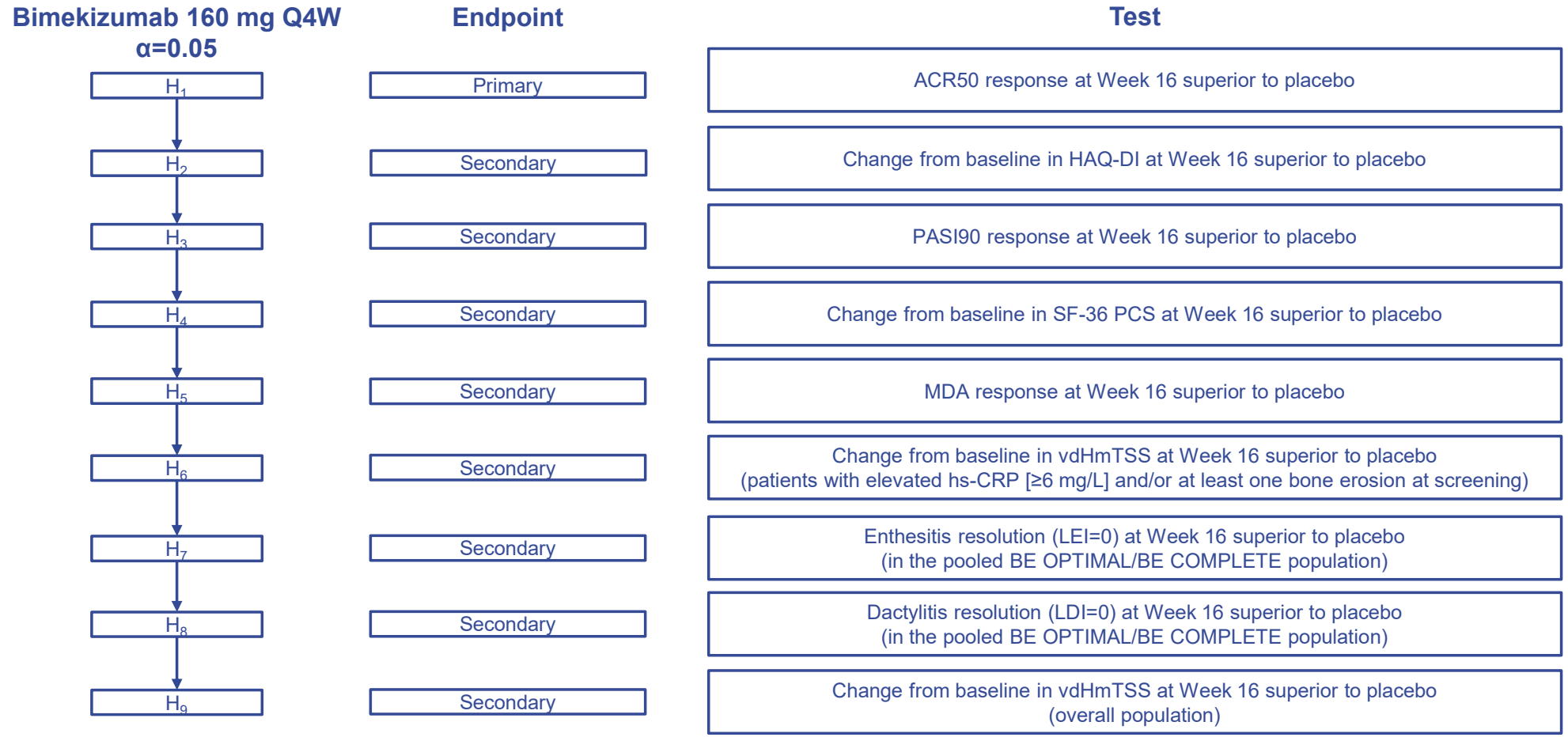
BE OPTIMAL Key Eligibility Criteria

Inclusion	Exclusion

✓ ≥18 years of age
✓ Diagnosis of adult-onset, active PsA
  ✓ Meet CASPAR classification criteria
  ✓ Duration ≥6 months prior to screening
  ✓ TJC ≥3 (out of 68)
  ✓ SJC ≥3 (out of 66)
✓ Negative for rheumatoid factor and anti-cyclic CCP antibodies
✓ ≥1 active psoriatic lesions and/or a documented history of PSO
✓ Patients with a diagnosis of Crohn's disease, ulcerative colitis, or other IBD, without active symptomatic disease at screening or baseline, are permitted
	x Current or prior exposure to biologics for treatment of PsA or PSO
	x Participation in a bimekizumab clinical trial, including those on placebo
	x Diagnosis of inflammatory condition other than PsA or PSO
	x Diagnosis with a form of PSO other than the chronic plaque type
	x Received any live vaccinations within 8 weeks prior to baseline or BCG vaccination within a 1 year prior to baseline

BCG: Bacillus Calmette-Guérin; CASPAR: Classification Criteria for Psoriatic Arthritis; CCP: cyclic citrullinated peptide; IBD: inflammatory bowel disease; PsA: psoriatic arthritis; PSO: psoriasis; SJC: swollen joint count; TJC: tender joint count.

BE OPTIMAL Statistical Testing Hierarchy



ACR50: American College of Rheumatology criteria ≥50% response; HAQ-DI: Health Assessment Questionnaire – Disability Index; hs-CRP: high sensitivity C-reactive protein; LDI: Leeds Dactylitis Index; LEI: Leeds Enthesitis Index; MDA: Minimal Disease Activity; PASI90: 90% improvement in Psoriasis Area and Severity Index; PCS: Physical Component Summary; Q4W: every 4 weeks; SF-36: Short-Form 36-item Health Survey; vdHmTSS: van der Heijde-modified Total Sharp Score.

Primary, Secondary, and Other Endpoints

Primary endpoint

- **ACR50 response at Week 16**

Ranked secondary endpoints

- HAQ-DI CfB at Week 16
- PASI90 response at Week 16[a]
- SF-36 PCS CfB at Week 16
- MDA response at Week 16
- vdHmTSS CfB at Week 16 in patients with hs-CRP ≥6 mg/L and/or ≥1 bone erosion at baseline
- Pooled enthesitis resolution (LEI) at Week 16[b]
- Pooled dactylitis resolution (LDI) at Week 16[b]
- vdHmTSS CfB at Week 16 in the overall radiographic set

Secondary and other efficacy endpoints

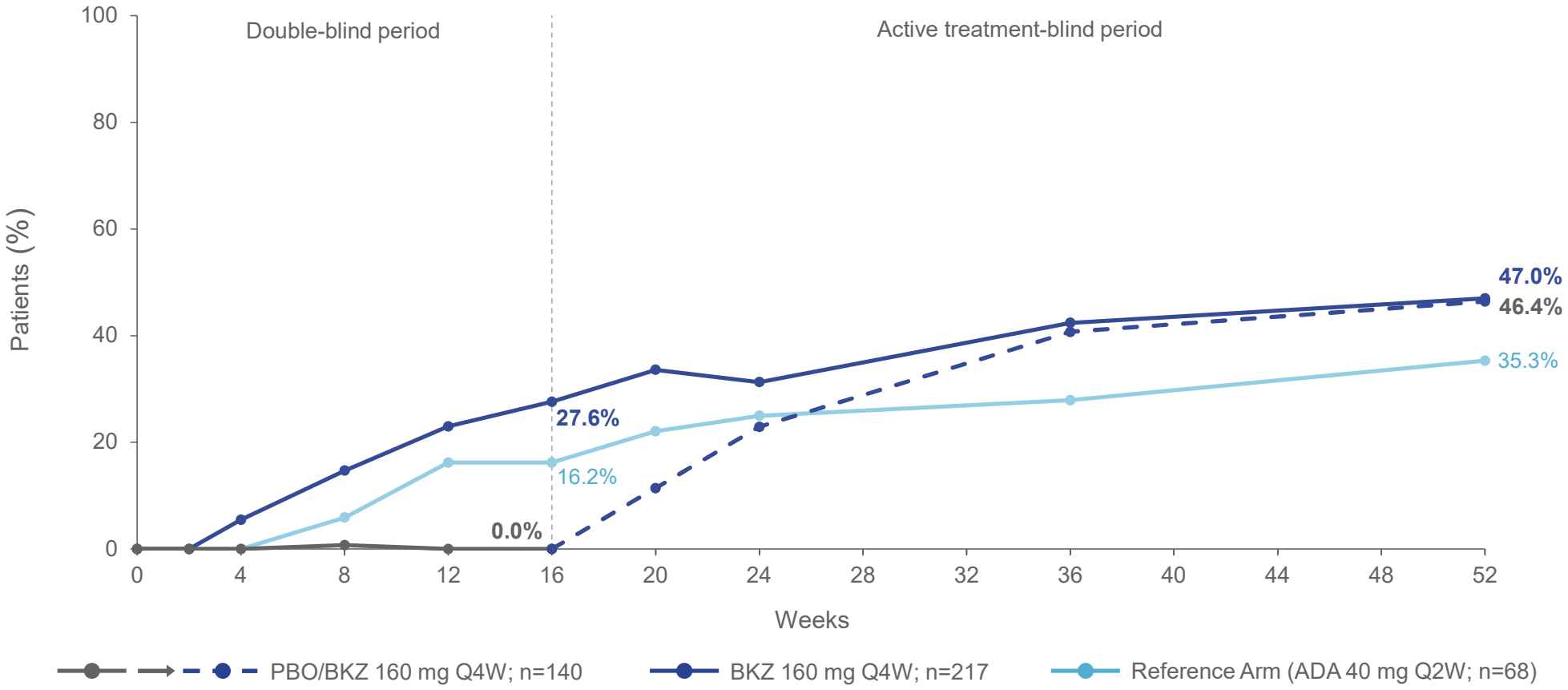
- ACR20 and ACR70 response at Week 16
- PASI75 and PASI100 response at Week 16[a]
- TJC and SJC CfB at Week 16
- Proportion of patients with a decrease in HAQ-DI ≥0.35 at Week 16

Safety endpoints

- Incidence of TEAEs, treatment-emergent SAEs and TEAEs leading to withdrawal

[a] In patients with PSO involving ≥3% BSA at baseline; [b] Data pooled from BE OPTIMAL and BE COMPLETE studies. ACR20/50/70: American College of Rheumatology criteria ≥20/50/70% response; CfB: change from baseline; HAQ-DI: Health Assessment Questionnaire-Disability Index; hs-CRP: high-sensitivity C-reactive protein; LDI: Leeds Dactylitis Index; LEI: Leeds Enthesitis Index; MDA: minimal disease activity; PASI75/90/100: ≥75/90/100% improvement in Psoriasis Area and Severity Index; PCS: Physical Component Summary; SAE: serious adverse event; SF-36: Short-Form 36-item Health Survey; SJC: swollen joint count; TEAE: treatment-emergent adverse event; TJC: tender joint count; vdHmTSS: van der Heijde-modified Total Sharp Score.

ACR50+PASI100 Responses Over Time to Week 52 (NRI)



Randomized set, in patients with PSO involving ≥3% BSA at baseline. The study was not powered for statistical comparisons of ADA to BKZ or PBO. ACR50: American College of Rheumatology criteria ≥50% response; ADA: adalimumab; BKZ: bimekizumab; BSA: body surface area; NRI: non-responder imputation; PASI100: 100% improvement in Psoriasis Area and Severity Index; PBO: placebo; Q2W: every 2 weeks; Q4W: every 4 weeks.

Efficacy: Secondary and Other Endpoints

	Placebo n=281	BKZ 160 mg Q4W n=431	Reference Arm (ADA 40 mg Q2W) n=140
Week 4			
HAQ-DI CfB, mean (SE) [MI]	–0.08 (0.02)	–0.18 (0.02)	–0.18 (0.04)
SF-36 PCS CfB, mean (SE) [MI]	+2.0 (0.4)	+4.1 (0.3)	+3.7 (0.6)
TJC CfB, mean (SE) [MI]	–2.6 (0.5)	–6.1 (0.4)	–7.5 (0.8)
SJC CfB, mean (SE) [MI]	–2.1 (0.4)	–4.4 (0.3)	–5.3 (0.5)
HAQ-DI reduction from BL ≥0.35,[a] n (%) [NRI]	55 (24.9)[b]	122 (38.4)[c]	40 (34.8)[d]
Week 16			
HAQ-DI CfB, mean (SE) [MI]	–0.09 (0.03)	–0.26 (0.02)	–0.33 (0.04)
SF-36 PCS CfB, mean (SE) [MI]	+2.3 (0.5)	+6.3 (0.4)	+6.8 (0.8)
TJC CfB, mean (SE) [MI]	–3.1 (0.7)	–10.0 (0.5)	–10.9 (1.0)
SJC CfB, mean (SE) [MI]	–3.0 (0.5)	–6.6 (0.3)	–7.5 (0.6)
HAQ-DI reduction from BL ≥0.35,[a] n (%) [NRI]	71 (32.1)[b]	161 (50.6)[c]	63 (54.8)[d]
Week 52	**Placebo→BKZ 160 mg Q4W**		
HAQ-DI CfB, mean (SE) [MI]	–0.38 (0.03)	–0.34 (0.02)	–0.41 (0.05)
SF-36 PCS CfB, mean (SE) [MI]	+8.4 (0.6)	+8.1 (0.5)	+9.0 (0.9)
TJC CfB, mean (SE) [MI]	–11.9 (0.7)	–12.5 (0.5)	–12.6 (0.9)
SJC CfB, mean (SE) [MI]	–7.8 (0.4)	–7.6 (0.3)	–8.2 (0.6)
HAQ-DI reduction from BL ≥0.35,[a] n (%) [NRI]	125 (56.6)[b]	182 (57.2)[c]	68 (59.1)[d]

Randomized set. For continuous variables, missing data and non-missing data preceded by a study treatment discontinuation are imputed using multiple imputation based on Markov Chain Monte Carlo (for intermittent missing data) followed by monotone regression (for monotone missing data). The study was not powered for statistical comparisons of ADA to BKZ or PBO. [a] In patients with HAQ-DI ≥0.35 at baseline; [b] n=221; [c] n=318; [d] n=115. ADA: adalimumab; BKZ: bimekizumab; BL: baseline; CfB: change from baseline; HAQ-DI: Health Assessment Questionnaire-Disability Index; MI: multiple imputation; NR: not reported; PCS: Physical Component Summary; SF-36: Short-Form 36-item Health Survey; SJC: swollen joint count; TJC: tender joint count.