Bimekizumab 3-year efficacy in patients with psoriasis and risk factors for progression to psoriatic arthritis or screening positive for psoriatic arthritis: Long-term results from BE BRIGHT and BE RADIANT

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### **Disclosures & acknowledgements**

#### **Disclosures**

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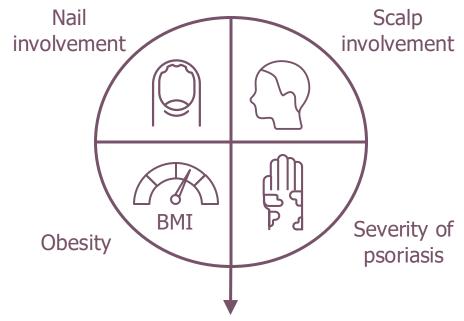
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#### **Introduction**

- **Psoriatic arthritis** (PsA) affects up to **one-third** of patients with psoriasis; 1 early identification and intervention for patients who are at risk may help reduce progression
- Severe psoriasis, nail involvement, scalp involvement, and obesity are recognised medium- to long-term risk factors for PsA development<sup>1–3</sup>
- Bimekizumab (BKZ) is a monoclonal IgG1 antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A<sup>4</sup>
- IL-17A and IL-17F play an important role in the **development** of psoriatic disease at the skin and joint level<sup>5</sup>
- Understanding the impact of BKZ on patients with these risk factors, or those screening PsA-positive, is important to potentially prevent progression<sup>1</sup>

### Risk factors for progression to PsA analysed here<sup>1-3</sup>

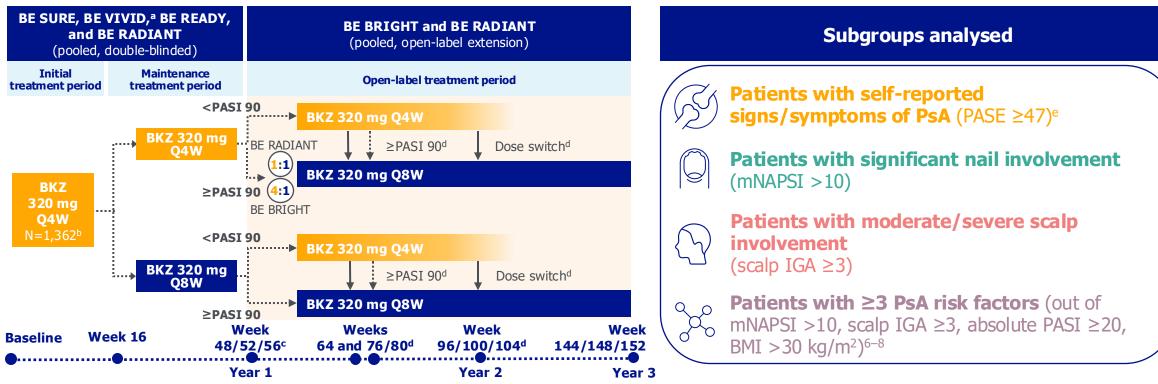


One-third of patients with psoriasis develop PsA<sup>1</sup>

**OBJECTIVE**: To evaluate BKZ response rates in patients with psoriasis with risk factors for progression to PsA or screening PsA-positive, and compare them with the overall BKZ-treated population

#### **Methods**

- Data were pooled from BE VIVID, BE SURE, BE READY, the first 96 weeks of their open-label extension (OLE) BE BRIGHT, and BE RADIANT (48-week double-blinded period, plus 96-week OLE)<sup>1–5</sup>
- Achievement of complete skin clearance (PASI 100; 100% improvement from baseline in Psoriasis Area and Severity Index)
  was evaluated through Year 3 using modified non-responder imputation (mNRI)



[a] BE VIVID did not include an option for Q8W dosing of BKZ during the maintenance period; [b] Only BKZ-randomised patients are included in this study design; BKZ-randomised patients who were re-randomized to placebo at Week 16 in BE READY (n=105) were not included in these analyses; [c] Different week numbers are presented due to different feeder study lengths; Week 48/52/56 refers to OLE Week 0 and corresponds to BE RADIANT/BE VIVID/BE SURE and BE READY, respectively; [d] In BE RADIANT, all patients switched to BKZ Q8W at Week 64 or the next scheduled clinic visit via protocol amendment; in BE BRIGHT, 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; [e] The PASE questionnaire is a validated self-administered PsA screening tool designed to help dermatologists identify patients with psoriasis who would benefit from a prompt referral to a rheumatologist; a score of ≥47 indicates a high likelihood of PsA. 9.10 1. Reich K et al. Lancet 2021;397:487–98 (NCT03370133); 2. Warren RB et al. N Engl J Med 2021;385:130–41 (NCT03412747); 3. Gordon KB et al. Lancet 2021;397:475–86 (NCT03410992); 4. Strober B et al. J Am Acad Dermatol 2023;188:749–59 (NCT03598790); 5. Strober B et al. J Am Acad Dermatol 2023;99:486–95 (NCT03536884); 6. Zabotir A et al. Arthritis Rheum 2009;61:233–39; 9. Iragorri N et al. Rheumatology (Oxford) 2019;58:692–707; 10. Husni ME et al. J Am Acad Dermatol 2007;57:581–7. BKZ: bimekizumab; BMI: body mass index; IGA: Investigator's Global Assessment; mNAPSI: modified non-responder imputation; OLE: open-label extension; PASE: Psoriatic Arthritis Screening and Evaluation; PASI: Psoriasis Area and Severity Index; PASI 90/100: ≥90%/100% improvement from baseline in PASI; PsA: psoriatic arthritis; O4W: every 8 weeks.

#### **Baseline characteristics**

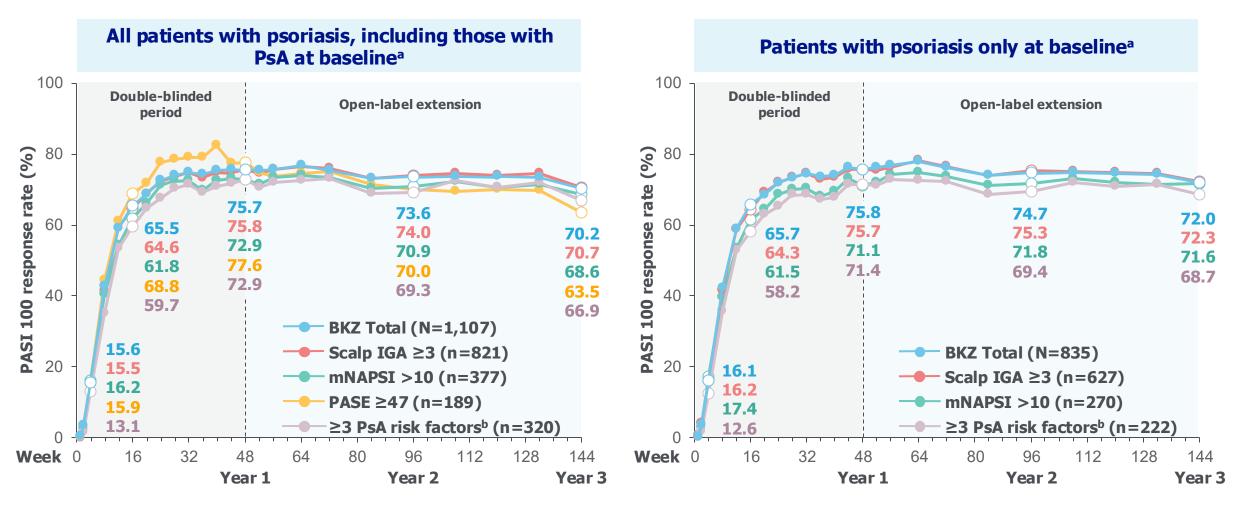
Of the patients initially randomised to BKZ at baseline:

- 1,107 continued BKZ
   throughout the maintenance period and into the OLE
   (BKZ Total; Q4W and Q8W doses pooled). 835 of these patients had psoriasis only at baseline<sup>a</sup>
- 374 of these received BKZ Q4W to Week 16 followed by BKZ Q8W thereafter (approved dosing for most patients with psoriasis; BKZ Q4W/Q8W).<sup>1</sup>
   297 of these patients had psoriasis only at baseline<sup>a</sup>

Patients	with	psoriasis	only	

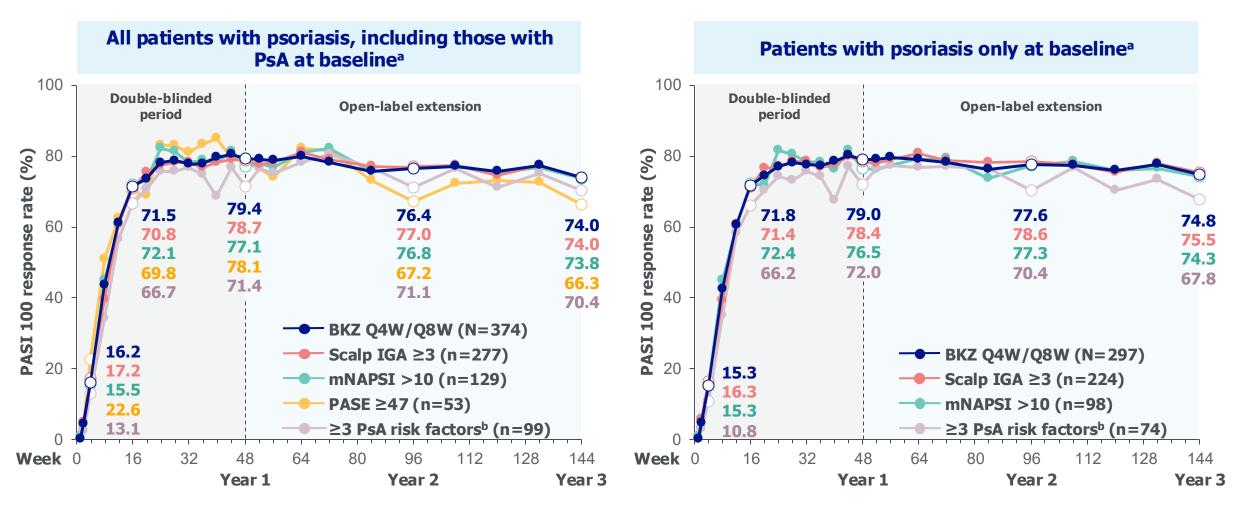
	BKZ Total N=1,107	<b>BKZ Q4W/Q8W</b> N=374	<b>BKZ Total</b> N=835	<b>BKZ Q4W/Q8W</b> N=297
Age, years, mean (SD)	45.5 (13.7)	45.0 (14.1)	44.4 (13.4)	43.0 (13.5)
Sex, male, n (%)	777 (70.2)	266 (71.1)	603 (72.2)	212 (71.4)
Racial group, white, n (%)	968 (87.4)	354 (94.7)	730 (87.4)	281 (94.6)
BMI >30 kg/m², n (%)	493 (44.5)	151 (40.4)	355 (42.5)	117 (39.4)
<b>Duration of psoriasis, years,</b> mean (SD)	18.5 (12.8)	18.7 (12.4)	18.0 (12.6)	17.7 (11.7)
<b>PASI</b> ≥ <b>20,</b> n (%)	466 (42.1)	143 (38.2)	344 (41.2)	108 (36.4)
BSA (%), mean (SD)	26.5 (15.7)	24.5 (13.5)	26.3 (15.3)	24.4 (13.2)
<b>IGA,</b> n (%)				
3: moderate	722 (65.2)	257 (68.7)	552 (66.1)	203 (68.4)
4: severe	382 (34.5)	115 (30.7)	280 (33.5)	92 (31.0)
DLQI total score, mean (SD)	10.6 (6.4)	10.7 (6.3)	10.1 (6.1)	10.1 (5.9)
Scalp IGA ≥3, n (%)	821 (74.2)	277 (74.1)	627 (75.1)	224 (75.4)
mNAPSI >10, n (%)	377 (34.1)	129 (34.5)	270 (32.3)	98 (33.0)
Any prior systemic therapy, n (%)	859 (77.6)	285 (76.2)	627 (75.1)	220 (74.1)
Any prior biologic therapy, n (%)	423 (38.2)	129 (34.5)	289 (34.6)	92 (31.0)
PsA at baseline, <sup>a</sup> n (%)	272 (24.6)	77 (20.6)	0 (0)	0 (0)
<b>PASE</b> ≥ <b>47,</b> n (%)	189 (17.1)	53 (14.2)	0 (0)	0 (0)

# Achievement of complete skin clearance over 3 years in BKZ Total patients (mNRI)



Patients discontinuing treatment 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 [a] Baseline PsA was defined as PASE ≥47, or a reported medical history of PsA; [b] The sub-population of patients with ≥3 risk factors could have any combination of mNAPSI >10, scalp IGA ≥3, PASI ≥20, and BMI >30 kg/m² at baseline. 1. Gordon KB et al. Lancet 2021;397:475–86 (NCT03410992). BKZ: bimekizumab; BMI: body mass index; IGA: Investigator's Global Assessment; mNAPSI: modified Nail Psoriasis Severity Index; mNRI: modified non-responder imputation; OLE: open-label extension; PASE: Psoriatic Arthritis Screening and Evaluation; PASI: Psoriasis Area and Severity Index; PASI 100: 100% improvement from baseline in PASI; PsA: psoriatic arthritis.

## Achievement of complete skin clearance over 3 years in BKZ Q4W/Q8W patients (mNRI)



Patients discontinuing treatment 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 [a] Baseline PsA was defined as PASE ≥47, or a reported medical history of PsA; [b] The sub-population of patients with ≥3 risk factors could have any combination of mNAPSI >10, scalp IGA ≥3, PASI ≥20, and BMI >30 kg/m² at baseline. 1. Gordon KB et al. Lancet 2021;397:475–86 (NCT03410992). BKZ: bimekizumab; BMI: body mass index; IGA: Investigator's Global Assessment; mNAPSI: modified Nail Psoriasis Severity Index; mNRI: modified non-responder imputation; OLE: open-label extension; PASE: Psoriatic Arthritis Screening and Evaluation; PASI: Psoriasis Area and Severity Index; PASI 100: 100% improvement from baseline in PASI; PsA: psoriatic arthritis; Q4W: every 8 weeks.

#### **Conclusions**



Complete skin clearance rates were high through Year 3 in bimekizumab-treated patients with psoriasis, including the significant proportions who had risk factors for disease progression to psoriatic arthritis.



Outcomes were similar between the overall group of bimekizumab-treated patients, and in the group with psoriasis only at baseline. This result was consistent in the subset who received the approved Q4W/Q8W dosing regimen.<sup>1</sup>



in patients with psoriasis and risk factors for progression to psoriatic arthritis may suggest a preventative effect. The effect of bimekizumab on disease progression should be investigated further.

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