

# Bimekizumab Efficacy and Safety Through 3 Years in Patients with Hidradenitis Suppurativa: Results from the Phase 3 BE HEARD I&II Trials and Their Open-Label Extension BE HEARD EXT

John R. Ingram,<sup>1,2</sup> Alexa B. Kimball,<sup>3</sup> Amit Garg,<sup>4</sup> Falk G. Bechara,<sup>5,6</sup> Brian Kirby,<sup>2,7</sup> Akimichi Morita,<sup>8</sup> Wayne Gulliver,<sup>2,9</sup> Bartosz Lukowski,<sup>10</sup> Delphine Deherder,<sup>11</sup> Jérémie Lambert,<sup>12</sup> Christina Crater,<sup>13</sup> Tom Vaux,<sup>13</sup> Christopher J. Sayed<sup>2,14</sup>

<sup>1</sup>Department of Dermatology & Academic Wound Healing, Division of Infection and Immunity, Cardiff University, Cardiff, UK; <sup>2</sup>European Hidradenitis Suppurativa Foundation (EHSF) e.V., Dessau, Germany; <sup>3</sup>Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, MA, USA; <sup>4</sup>Northwell, New Hyde Park, NY, USA; <sup>5</sup>Department of Dermatology, Venereology, and Allergology, St. Josef-Hospital, Ruhr-University Bochum, Bochum, Germany; <sup>6</sup>ICH – International Center for Hidradenitis Suppurativa/Acne Involuta, Ruhr-University Bochum, Bochum, Germany; <sup>7</sup>St Vincent's University Hospital, Elm Park and the Charles Institute, University College Dublin, Dublin, Republic of Ireland; <sup>8</sup>Department of Geriatric and Environmental Dermatology, Nagoya City University Graduate School of Medical Sciences, Nagoya, Japan; <sup>9</sup>Newlab Clinical Research Inc., St John's, NL, Canada; <sup>10</sup>Vedim/UCB, Warsaw, Poland; <sup>11</sup>UCB, Braine-l'Alleud, Belgium; <sup>12</sup>UCB, Colombes, France; <sup>13</sup>UCB, Morrisville, NC, USA; <sup>14</sup>Department of Dermatology, University of North Carolina School of Medicine, Chapel Hill, NC, USA.

<sup>a</sup>Deceased.

## Objective

To report efficacy and safety of bimekizumab (BKZ) in patients with moderate to severe hidradenitis suppurativa (HS) up to 3 years (148 weeks) for the pooled phase 3 BE HEARD I&II trials and the open-label extension (OLE) BE HEARD EXT.<sup>1,2</sup>

## Synopsis

- HS is a chronic, relapsing, inflammatory skin disease, characterized by painful lesions which cause disability and diminish patients' health-related quality of life (HRQoL).<sup>3-5</sup>
- Long-term disease control is essential to prevent irreversible damage and disease progression.<sup>6</sup>
- BKZ is a humanized IgG1 monoclonal antibody that selectively inhibits interleukin (IL)-17F in addition to IL-17A, and has demonstrated clinically meaningful improvements in patients with moderate to severe HS for up to 2 years of treatment.<sup>7,8</sup>

## Methods

- Data were pooled from BE HEARD I&II (NCT04242446 and NCT04242498) and BE HEARD EXT (NCT04901195).
- For efficacy outcomes, we report data for patients who were randomized to BKZ from baseline in BE HEARD I&II who entered BE HEARD EXT (BKZ Total group). For safety outcomes, we report data for patients who received  $\geq 1$  dose of BKZ across BE HEARD I&II/BE HEARD EXT.
- Data reported over time to Year 3:
  - HS Clinical Response (HiSCR) 50/75/90/100 rates;
  - Absolute change from baseline (Cfb) in draining tunnel (DT) count;
  - Dermatology Life Quality Index (DLQI) 0/1 response rates.
- Exposure-adjusted incidence rates (EAIR) for any treatment-emergent adverse event (TEAE) reported up to 3 years of BKZ treatment.
- Data are reported as observed case (OC) and modified non-responder imputation (mNRI) for HiSCR and DLQI outcomes.
  - OC: patients who discontinued for any reason—left as missing;
  - mNRI: patients who discontinued due to adverse events or lack of efficacy—imputed as non-response.

## Results

- Of the 1,014 patients in BE HEARD I&II, 556 randomized to BKZ at baseline completed Year 1 (Week 48) and entered BE HEARD EXT (BKZ Total).
- Baseline demographics and clinical characteristics of patients are presented in Table 1.
- Up to 3 years, the EAIR for any TEAE was 226.8 patient-years, showing a decrease with longer exposure to BKZ (Table 2).
- At Week 48, HiSCR50/75/90/100 responses were 79.9%/64.0%/42.3%/30.2% (OC); responses were maintained to Week 148 at 90.2%/81.2%/64.3%/50.1% (OC) (Figure 1).
- Patients had DLQI 0/1 response rates of 38.1% (OC) and 31.9% (mNRI) at Week 148 (Figure 2).
- At Week 96, mean absolute Cfb in DT count was  $-2.9$ , which was maintained through Week 148 (OC) (Figure 3).

## Conclusions

Clinical improvements observed at Year 1 in the bimekizumab hidradenitis suppurativa phase 3 trials were maintained or further improved through 3 years of treatment.

Draining tunnel and health-related quality of life improvements were also maintained through 3 years.

Bimekizumab was well-tolerated and no new safety signals were identified up to 3 years of treatment.

These data highlight the depth and durability of response to bimekizumab treatment in patients with moderate to severe hidradenitis suppurativa.

## Plain Language Summary



### Why was this study needed?

Hidradenitis suppurativa (HS) is a long-lasting skin condition. It can cause painful lumps and draining tunnels under the skin. These signs of progressive disease cause irreversible damage and reduce quality of life.



### What did this study show?

After 1 year of treatment with bimekizumab, patients with HS had several improvements, including better quality of life and fewer draining tunnels. These improvements were maintained through 3 years of treatment. No new safety concerns were identified.



### Why is this important?

Treatment with bimekizumab reduces lasting symptoms of HS to improve patients' daily lives.

Table 1 Baseline characteristics

	BKZ Total* (Efficacy set) N=556	Patients with $\geq 1$ dose BKZ (Safety set) N=995
Age, years, mean (SD)	36.3 (12.2)	36.7 (12.2)
Sex, female, n (%)	299 (53.8)	564 (56.7)
Racial group, White, n (%)	448 (80.6)	796 (80.0)
BMI, kg/m <sup>2</sup> , mean (SD)	32.5 (7.8)	33.0 (8.1)
Duration of disease, years, mean (SD)	7.4 (7.1)	8.0 (7.8)
Hurley stage, n (%)		
I	303 (54.5)	553 (55.6)
II	253 (45.5)	442 (44.4)
DLQI total score, mean (SD)	11.0 (6.8)	11.2 (6.9)
Prior biologic use <sup>a</sup> , n (%)	112 (20.1)	192 (19.3)
Baseline antibiotic use, n (%)	54 (9.7)	83 (8.3)

OLE set for efficacy set; Pool S3 for safety set. <sup>a</sup> BKZ Total comprised patients randomized to BKZ from baseline in BE HEARD I&II who entered BE HEARD EXT. <sup>b</sup> Patients received prior biologic therapy for any indication.

Table 2 Incidence of TEAEs per 100 patient-years

	Patients with $\geq 1$ dose BKZ N=995			
EAIR/100 PY (95% CI)	Year 1 (Week 0–48)	Year 2 (Week >48–96)	Year 3 (Week >96–144)	Up to 3 Years (Week 0–144)
Any TEAE	261.9 (244.5, 280.3)	237.2 (218.3, 257.2)	168.3 (152.2, 185.6)	226.8 (212.4, 242.0)
Serious TEAEs	8.2 (6.3, 10.5)	7.9 (5.7, 10.5)	7.9 (5.5, 10.9)	7.2 (6.0, 8.6)
Severe TEAEs	10.4 (8.2, 12.9)	7.2 (5.2, 9.8)	7.0 (4.8, 9.9)	7.7 (6.4, 9.1)
TEAEs leading to discontinuation	8.7 (6.8, 11.1)	4.8 (3.2, 7.0)	3.0 (1.7, 5.1)	6.0 (5.0, 7.3)
Any TEAE leading to death <sup>b</sup>	0.1 (0.0, 0.7)	0.3 (0.0, 1.2)	0.0	0.2 (0.0, 0.5)
Most common TEAEs <sup>b</sup>				
Hidradenitis	25.5 (21.9, 29.5)	27.4 (23.1, 32.2)	18.2 (14.4, 22.7)	20.7 (18.5, 23.2)
Coronavirus infection	13.6 (11.1, 16.5)	23.7 (19.7, 28.2)	7.5 (5.2, 10.5)	15.3 (13.4, 17.4)
Oral candidiasis	15.2 (12.5, 18.2)	12.3 (9.5, 15.6)	10.3 (7.5, 13.8)	10.4 (8.9, 12.1)
Serious infections	1.9 (1.1, 3.2)	1.7 (0.8, 3.2)	3.2 (1.8, 5.3)	2.0 (1.4, 2.8)
Fungal infections	34.8 (30.5, 39.6)	25.0 (20.9, 29.7)	22.3 (18.0, 27.2)	24.4 (21.9, 27.1)
Any malignancies	0.5 (0.1, 1.3)	1.0 (0.4, 2.2)	0.6 (0.1, 1.9)	0.7 (0.4, 1.2)
Any hepatic events	6.0 (4.4, 8.0)	5.8 (4.0, 8.2)	4.6 (2.8, 7.0)	4.7 (3.8, 5.9)
Adjudicated suicidal ideation and behavior <sup>b</sup>	0.8 (0.3, 1.7)	0.9 (0.3, 2.0)	0.4 (0.1, 1.6)	0.7 (0.4, 1.2)
Definite or probable adjudicated IBD <sup>b</sup>	0.9 (0.4, 1.8)	0.5 (0.1, 1.5)	0.2 (0.0, 1.2)	0.5 (0.3, 1.0)

Data presented relative to the double-blind treatment period, the open-label extension (BE HEARD EXT) (total of 3 years), TEAEs reported during MedDRA 10.0 and reported up to 3 years of BE HEARD EXT (total of 100 patient-years). Data are expressed as mean per 100 patient-years. <sup>a</sup> Prior to Week 48. <sup>b</sup> Patients discontinued during the double-blind treatment period (MTP) or during the open-label treatment period (OCTP). <sup>c</sup> Data are expressed as mean per 100 patient-years. <sup>d</sup> Data are expressed as mean per 100 patient-years. <sup>e</sup> Data are expressed as mean per 100 patient-years. <sup>f</sup> Data are expressed as mean per 100 patient-years. <sup>g</sup> Data are expressed as mean per 100 patient-years. <sup>h</sup> Data are expressed as mean per 100 patient-years. <sup>i</sup> Data are expressed as mean per 100 patient-years. <sup>j</sup> Data are expressed as mean per 100 patient-years. <sup>k</sup> Data are expressed as mean per 100 patient-years. <sup>l</sup> Data are expressed as mean per 100 patient-years. <sup>m</sup> Data are expressed as mean per 100 patient-years. <sup>n</sup> Data are expressed as mean per 100 patient-years. <sup>o</sup> Data are expressed 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