Gemeinsamer Bundesausschuss

Resolution

of the Federal Joint Committee on an Amendment of the Pharmaceuticals Directive:
Annex XII – Benefit Assessment of Medicinal Products with New Active Ingredients according to Section 35a SGB V:
Bimekizumab (plaque psoriasis)

of 3 March 2022

At its session on 3 March 2022, the Federal Joint Committee (G-BA) resolved to amend the Pharmaceuticals Directive (AM-RL) in the version dated 18 December 2008 / 22 January 2009 (Federal Gazette, BAnz. No. 49a of 31 March 2009), as last amended by the publication of the resolution of D Month YYYY (Federal Gazette, BAnz AT DD.MM.YYYY BX), as follows:

I. Annex XII shall be amended in alphabetical order to include the active ingredient Bimekizumab as follows:

Courtesy translation – only the German version is legally binding.

Bimekizumab

Resolution of: 3 March 2022
Entry into force on: 3 March 2022
Federal Gazette, BAnz AT DD. MM YYYY Bx

Therapeutic indication (according to the marketing authorisation of 20 August 2021):

Bimzelx is indicated for the treatment of moderate to severe plaque psoriasis in adults who are candidates for systemic therapy.

Therapeutic indication of the resolution (resolution of 3 March 2022):

See therapeutic indication according to marketing authorisation.

1. Additional benefit of the medicinal product in relation to the appropriate comparator therapy

a) Adults with moderate to severe plaque psoriasis for whom conventional therapy is not an option in the context of first-time systemic therapy

Appropriate comparator therapy:

Adalimumab or guselkumab or ixekizumab or secukinumab

Extent and probability of the additional benefit of Bimekizumab compared to the appropriate comparator therapy (Secukinumab and/or Adalimumab):

Indication of a minor additional benefit

b) Adults with moderate to severe plaque psoriasis who have responded inadequately to, or have not tolerated systemic therapy

Appropriate comparator therapy:

Adalimumab or brodalumab or guselkumab or infliximab or ixekizumab or risankizumab or secukinumab or ustekinumab

Extent and probability of the additional benefit of Bimekizumab compared to the appropriate comparator therapy (Secukinumab and/or Adalimumab):

Indication of a minor additional benefit

Courtesy translation – only the German version is legally binding.

Study results according to endpoints:[1]

a) Adults with moderate to severe plaque psoriasis for whom conventional therapy is not an option in the context of first-time systemic therapy

Summary of results for relevant clinical endpoints

Endpoint category	Direction of effect/ risk of bias	Summary
Mortality	↔	No deaths occurred.
Morbidity	↑	Advantages in skin symptomatology
Health-related quality of life	↑	Advantage of DLQI compared to adalimumab; No advantage of DLQI compared to secukinumab
Side effects	↓	Disadvantage in the endpoint SAE as well as, in detail, for specific AE "fungal infections"

Explanations:
↑: statistically significant and relevant positive effect with low/unclear reliability of data
↓: statistically significant and relevant negative effect with low/unclear reliability of data
↑↑: statistically significant and relevant positive effect with high reliability of data
↓↓: statistically significant and relevant negative effect with high reliability of data
↔: no statistically significant or relevant difference
∅: There are no usable data for the benefit assessment.
n.a.: not assessable

BE SURE study: Bimekizumab vs Adalimumab

BE RADIANT study: Bimekizumab vs Secukinumab

Patients who had not yet received systemic psoriasis therapy at the time of enrolment in the study:

Mortality

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Overall mortality					
BE SURE (week 24)	43	0 (0)	49	0 (0)	-
BE RADIANT (week 48)	58	0 (0)	98	0 (0)	-

[1] Data from the dossier assessment of the IQWiG (A21-110) and from the addendum (A22-07), unless otherwise indicated.

Courtesy translation – only the German version is legally binding.

Morbidity

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Remission (PASI 100)					
BE SURE (week 24)	45	26 (57.8)	49	7 (14.3)	4.01 [1.91; 8.41]; < 0.001
BE RADIANT (week 48)	58	43 (74.1)	98	44 (44.9)	1.58 [1.21; 2.06]; 0.001
Response (PASI 90)					
BE SURE (week 24)	45	39 (86.7)	49	20 (40.8)	2.22 [1.53; 3.23]; < 0.001
BE RADIANT (week 48)	58	51 (87.9)	98	69 (70.4)	1.20 [1.03; 1.40]; 0.033
Response (PASI 75)					
BE SURE (week 24)	45	42 (93.3)	49	27 (55.1)	1.73 [1.31; 2.28]; < 0.001
BE RADIANT (week 48)	58	52 (89.7)	98	77 (78.6)	1.11 [0.98; 1.26]; 0.153
Absence of any symptom on the scalp (scalp IGA)[b]					
BE SURE (week 24)	43	34 (79.1)	40	18 (45.0)	1.70 [1.18; 2.44]; 0.002
BE RADIANT (week 48)	54	45 (83.3)	89	62 (69.7)	1.16 [0.97; 1.39]; 0.125
Absence of any symptom on palms and soles (pp IGA)[c]					
BE SURE (week 24)	11	10 (90.9)	8	6 (75.0)	1.28 [0.78; 2.09]; 0.271
BE RADIANT (week 48)	13	11 (84.6)	17	12 (70.6)	1.14 [0.79; 1.65]; 0.515
Absence of any symptom on fingernails (mNAPSI 100)[d]					
BE SURE (week 24)	29	17 (58.6)	24	7 (29.2)	2.43 [1.14; 5.21]; 0.010
BE RADIANT (week 48)	29	23 (79.3)	41	21 (51.2)	1.50 [1.07; 2.11]; 0.024

Courtesy translation – only the German version is legally binding.

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Patient-reported absence of symptoms (PSD)[e]					
PSD itching					
BE SURE (week 24)	44	11 (25.0)	48	8 (16.7)	1.60 [0.69; 3.75]; 0.270
BE RADIANT (week 48)	58	44 (75.9)	98	51 (52.0)	1.38 [1.10; 1.74]; 0.010
PSD pain					
BE SURE (week 24)	44	15 (34.1)	48	14 (29.2)	1.31 [0.74; 2.33]; 0.358
BE RADIANT (week 48)	58	51 (87.9)	98	66 (67.3)	1.27 [1.07; 1.49]; 0.010
PSD scaling					
BE SURE (week 24)	44	14 (31.8)	48	8 (16.7)	1.97 [0.91; 4.25]; 0.080
BE RADIANT (week 48)	58	45 (77.6)	98	46 (46.9)	1.54 [1.21; 1.96]; < 0.001
PSD redness					
BE SURE (week 24)	44	11 (25.0)	48	9 (18.8)	1.38 [0.64; 2.97]; 0.416
BE RADIANT (week 48)	not assessed				
PSD burning					
BE SURE (week 24)	44	15 (34.1)	48	12 (25.0)	1.48 [0.81; 2.74]; 0.212
BE RADIANT (week 48)	not assessed				
PSD cracking					
BE SURE (week 24)	44	17 (38.6)	48	12 (25.0)	1.72 [0.94; 3.13]; 0.078
BE RADIANT (week 48)	not assessed				

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Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
PSD dryness					
BE SURE (week 24)	44	8 (18.2)	48	7 (14.6)	1.33 [0.52; 3.38]; 0.557
BE RADIANT (week 48)	not assessed				
PSD irritation					
BE SURE (week 24)	44	13 (29.5)	48	8 (16.7)	1.98 [0.91; 4.27]; 0.080
BE RADIANT (week 48)	not assessed				
PSD sensitivity					
BE SURE (week 24)	44	12 (27.3)	48	10 (20.8)	1.38 [0.66; 2.86]; 0.394
BE RADIANT (week 48)	not assessed				
PSD lesions					
BE SURE (week 24)	44	10 (22.7)	48	8 (16.7)	1.45 [0.64; 3.28]; 0.383
BE RADIANT (week 48)	not assessed				
PSD thickening					
BE SURE (week 24)	44	17 (38.6)	48	10 (20.8)	2.06 [1.07; 3.96]; 0.028
BE RADIANT (week 48)	not assessed				
PSD fatigue					
BE SURE (week 24)	44	16 (36.4)	48	14 (29.2)	1.48 [0.84; 2.60]; 0.175
BE RADIANT (week 48)	not assessed				

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Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
PSD embarrassment					
BE SURE (week 24)	44	17 (38.6)	48	14 (29.2)	1.39 [0.80; 2.43]; 0.251
BE RADIANT (week 48)	not assessed				
PSD choice of clothing					
BE SURE (week 24)	44	15 (34.1)	48	16 (33.3)	1.10 [0.64; 1.88]; 0.747
BE RADIANT (week 48)	not assessed				

Endpoint study	Bimekizumab			Adalimumab or Secukinumab			Bimekizumab vs Adalimumab or Aecukinumab
	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	MD [95% CI][i]; p value[f]
Health status (EQ-5D VAS)[j]							
BE SURE (week 24)	43	76.6 (16.4)	9.8 (2.2)	43	75.9 (17.5)	3.8 (2.1)	6.02 [0.73; 11.31]; 0.026 Hedges' g 0.47 [0.05; 0.90][k]
BE RADIANT (week 48)	54	80.3 (18.6)	8.2 (1.8)	79	78.0 (20.4)	7.2 (1.4)	0.93 [−3.54; 5.40] 0.682
Patient Global Assessment							
BE SURE (week 24)	43	3.52 (0.93)	−1.84 (0.17)	43	3.49 (0.98)	−1.25 (0.16)	-0.59 [-0.94; -0.25]; 0.001 Hedges' g: -0.55 [-0.99; -0.12]
BE RADIANT (week 48)	54	3.62 (0.97)	-2.22 (0.09)	79	3.48 (0.92)	-2.03 (0.07)	-0.19 [-0.41; 0.03]; 0.091

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Health-related quality of life

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
DLQI ≤ 1					
BE SURE (week 24)	45	29 (64.4)	49	18 (36.7)	1.78 [1.15; 2.76]; 0.007
BE RADIANT (week 48)	58	49 (84.5)	98	70 (71.4)	1.13 [0.97; 1.33]; 0.153

Endpoint study	Bimekizumab			Adalimumab or Secukinumab			Bimekizumab vs Adalimumab or Secukinumab
	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	MD [95% CI][i]; p value
SF-36 PCS[l]							
BE SURE (week 24)	43	49.7 (8.5)	5.6 (1.0)	43	47.0 (11.2)	5.3 (1.0)	0.35 [−1.82; 2.52]; 0.750
BE RADIANT (week 48)	Endpoint not assessed						
SF-36 MCS[m]							
BE SURE (week 24)	43	52.8 (10.2)	2.3 (1.1)	43	53.7 (9.1)	2.5 (1.1)	−0.21 [−2.66; 2.25]; 0.868
BE RADIANT (week 48)	Endpoint not assessed						

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Side effects

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Adverse events (presented additionally)[n]					
BE SURE (week 24)	43	28 (65.1)	49	34 (69.4)	-
BE RADIANT (week 48)	58	48 (82.8)	98	77 (78.6)	-
Serious adverse events (SAE)[n,o]					
BE SURE (week 24)	43	0 (0)	49	0 (0)	
BE RADIANT (week 48)	58	4[p] (6.9)	98	0 (0)	n.a.; 0.003
Therapy discontinuation due to adverse events[o]					
BE SURE (week 24)	43	1 (2.3)	49	2 (4.1)	0.58 [0.04; 7.75]; 0.682
BE RADIANT (week 48)	58	0 (0)	98	3 (3.1)	n. a.; 0.234
Infections and infestations (SOC, AE)					
BE SURE (week 24)	43	21 (48.8)	49	23 (46.9)	1.04 [0.68; 1.58]; 0.865
BE RADIANT (week 48)	58	36 (62.1)	98	44 (44.9)	1.34 [1.00; 1.80]; 0.058
Fungal infections (HLGT, AE)[q]					
BE SURE (week 24)	43	7 (16.3)	49	1 (2.0)	7.05 [0.97; 51.04]; 0.019
BE RADIANT (week 48)	58	13 (22.4)	98	9 (9.2)	2.33 [1.04; 5.19]; 0.035

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Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]

a. RR and CI: CMH test with region as stratification variable; p value: CMH test for general association. Missing values for the endpoints of morbidity and health-related quality of life were replaced using non-responder imputation (NRI).
b. Operationalised as score = 0, with a concurrent improvement of at least 2 scale points at the start of the study. The instrument was only assessed during the study in patients whose scalp was examined at the start of the study. The evaluation was only performed for patients who had a grade ≥ 2 at the start of the study.
b. Operationalised as score = 0, with a concurrent improvement of at least 2 scale points at the start of the study. The instrument was only assessed during the study in patients whose palms and soles were examined at the start of the study. This corresponded to only 20% of randomised patients in BE SURE and 19% in BE RADIANT studies.
d. The instrument was only assessed during the study in patients whose fingernails were examined at the start of the study. This corresponded to 56% of randomised patients in BE SURE and 45% in BE RADIANT studies.
e. Operationalised as score = 0 for all symptoms
f. When evaluating the PGA: MMRM with treatment, visit, treatment*visit, region and baseline value as fixed effects, visit as repeated measurement and patient as random effect
Number of patients who were taken into account in the evaluation for calculating the effect estimate; the values at start of study can be based on other patient numbers.
h. For the BE SURE study at 24 weeks and for the BE RADIANT study at 48 weeks
i. Changes, mean differences and CIs; MMRM with treatment, visit, treatment*visit, region and value at the start of the study as fixed effects, visit as repeated measurement and patient as random effect
j. Higher (increasing) values mean better symptomatology; positive effects (bimekizumab minus adalimumab or secukinumab) mean an advantage of bimekizumab (scale range 0 to 100).
k. Hedges' g: IQWiG calculation
l. Higher (increasing) values mean better health-related quality of life; positive effects (bimekizumab minus adalimumab or secukinumab) mean an advantage for bimekizumab (scale range of 7-70)
m. Higher (increasing) scores mean better health-related quality of life; positive effects (bimekizumab minus adalimumab or secukinumab) mean an advantage of bimekizumab (scale range of 6-70)

n. Without disease-related events
o. RR and 95% CI not reasonably calculable
p. For the patients, "dengue fever", "latent tuberculosis", "infection of the foot with flesh-eating bacteria" and "car accident with C6 and T5 fracture" were documented as SAEs.
q. HLGT "Infectious diseases caused by fungi"; the events are primarily based on the PT "oral candidiasis"

Abbreviations used:
CMH: Cochran-Mantel-Haenszel; HLGT: High Level Group Term; IGA: Investigator's Global Assessment; CI: confidence interval; mNAPSI: modified nail psoriasis severity index; n: number of patients with (at least 1) event; N: number of patients evaluated; PASI: Psoriasis Area and Severity Index; pp-IGA: palmoplantar IGA; PSD: Psoriasis Symptom Diary; PT: preferred term; RCT: randomised controlled trial; RR: relative risk; SAE: serious adverse event; AE: adverse event

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b) Adults with moderate to severe plaque psoriasis who have responded inadequately to, or have not tolerated systemic therapy

Summary of results for relevant clinical endpoints

Endpoint category	Direction of effect/ risk of bias	Summary
Mortality	↔	No relevant difference for the benefit assessment.
Morbidity	↑	Advantages in skin symptomatology
Health-related quality of life	↑	Advantage of DLQI compared to adalimumab; No advantage of DLQI compared to secukinumab
Side effects	↓	Disadvantage, in detail, for specific AE "fungal infections"
Explanations: ↑: statistically significant and relevant positive effect with low/unclear reliability of data ↓: statistically significant and relevant negative effect with low/unclear reliability of data ↑↑: statistically significant and relevant positive effect with high reliability of data ↓↓: statistically significant and relevant negative effect with high reliability of data ↔: no statistically significant or relevant difference ∅: There are no usable data for the benefit assessment. n.a.: not assessable		

BE SURE study: Bimekizumab vs Adalimumab

BE RADIANT study: Bimekizumab vs Secukinumab

Patients who were already receiving systemic psoriasis therapy at the time of enrolment in the study and had discontinued this therapy due to inadequate response and/or intolerance:

Mortality

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Overall mortality					
BE SURE (week 24)	83	0 (0)	84	0 (0)	-
BE RADIANT (week 48)	128	1 (0.8)	228	1 (0.4)	1.54 [0.13; 18.63]; 0.733

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Morbidity

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Remission (PASI 100)					
BE SURE (week 24)	87	59 (67.8)	84	33 (39.3)	1.69 [1.24; 2.30]; < 0.001
BE RADIANT (week 48)	128	79 (61.7)	228	109 (47.8)	1.29 [1.07; 1.56]; 0.010
Response (PASI 90)					
BE SURE (week 24)	87	77 (88.5)	84	50 (59.5)	1.46 [1.20; 1.78]; < 0.001
BE RADIANT (week 48)	128	108 (84.4)	228	160 (70.2)	1.19 [1.06; 1.33]; 0.004
Response (PASI 75)					
BE SURE (week 24)	87	81 (93.1)	84	64 (76.2)	1.22 [1.06; 1.40]; 0.003
BE RADIANT (week 48)	128	115 (89.8)	228	187 (82.0)	1.09 [1.00; 1.18]; 0.062
Absence of any symptom on the scalp (scalp IGA)[b]					
BE SURE (week 24)	84	71 (84.5)	75	50 (66.7)	1.28 [1.05; 1.55]; 0.008
BE RADIANT (week 48)	112	87 (77.7)	203	150 (73.9)	1.05 [0.92; 1.19]; 0.493
Absence of any symptom on palms and soles (pp IGA)[c]					
BE SURE (week 24)	26	23 (88.5)	22	14 (63.6)	1.44 [0.92; 2.25]; 0.055
BE RADIANT (week 48)	30	27 (90.0)	64	47 (73.4)	1.22 [1.01; 1.47]; 0.087
Absence of any symptom on fingernails (mNAPSI 100)[d]					
BE SURE (week 24)	47	26 (55.3)	58	22 (37.9)	1.35 [0.91; 2.01]; 0.134
BE RADIANT (week 48)	75	57 (76.0)	114	77 (67.5)	1.14 [0.95; 1.36]; 0.154

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Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Patient-reported absence of symptoms (PSD)[e]					
PSD itching					
BE SURE (week 24)	86	30 (34.9)	81	18 (22.2)	1.57 [0.95; 2.60]; 0.076
BE RADIANT (week 48)	128	77 (60.2)	228	106 (46.5)	1.28 [1.05; 1.57]; 0.018
PSD pain					
BE SURE (week 24)	86	44 (51.2)	81	28 (34.6)	1.44 [1.00; 2.08]; 0.041
BE RADIANT (week 48)	128	104 (81.3)	228	164 (71.9)	1.12 [1.00; 1.25]; 0.070
PSD scaling					
BE SURE (week 24)	86	37 (43.0)	81	19 (23.5)	1.86 [1.15; 2.99]; 0.007
BE RADIANT (week 48)	128	90 (70.3)	228	117 (51.3)	1.36 [1.15; 1.61]; < 0.001
PSD redness					
BE SURE (week 24)	86	36 (41.9)	81	17 (21.0)	2.06 [1.25; 3.40]; 0.003
BE RADIANT (week 48)	not assessed				
PSD burning					
BE SURE (week 24)	86	39 (45.3)	81	28 (34.6)	1.29 [0.88; 1.89]; 0.178
BE RADIANT (week 48)	not assessed				
PSD cracking					
BE SURE (week 24)	86	40 (46.5)	81	30 (37.0)	1.25 [0.87; 1.81]; 0.219
BE RADIANT (week 48)	not assessed				

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Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
PSD dryness					
BE SURE (week 24)	86	21 (24.4)	81	14 (17.3)	1.32 [0.71; 2.44]; 0.370
BE RADIANT (week 48)	not assessed				
PSD irritation					
BE SURE (week 24)	86	35 (40.7)	81	24 (29.6)	1.37 [0.89; 2.10]; 0.142
BE RADIANT (week 48)	not assessed				
PSD sensitivity					
BE SURE (week 24)	86	35 (40.7)	81	25 (30.9)	1.30 [0.85; 1.98]; 0.221
BE RADIANT (week 48)	not assessed				
PSD lesions					
BE SURE (week 24)	86	32 (37.2)	81	19 (23.5)	1.67 [1.01; 2.74]; 0.039
BE RADIANT (week 48)	not assessed				
PSD thickening					
BE SURE (week 24)	86	42 (48.8)	81	27 (33.3)	1.48 [1.01; 2.16]; 0.039
BE RADIANT (week 48)	not assessed				
PSD fatigue					
BE SURE (week 24)	86	34 (39.5)	81	28 (34.6)	1.14 [0.76; 1.70]; 0.528
BE RADIANT (week 48)	not assessed				

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Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
PSD embarrassment					
BE SURE (week 24)	86	44 (51.2)	81	28 (34.6)	1.50 [1.04; 2.16]; 0.027
BE RADIANT (week 48)	not assessed				
PSD choice of clothing					
BE SURE (week 24)	86	42 (48.8)	81	30 (37.0)	1.33 [0.93; 1.90]; 0.119
BE RADIANT (week 48)	not assessed				

Endpoint study	Bimekizumab			Adalimumab or Secukinumab			Bimekizumab vs Adalimumab or Secukinumab
	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	MD [95% CI][i]; p value[f]
Health status (EQ-5D VAS)[j]							
BE SURE (week 24)	79	76.6 (16.7)	12.0 (1.6)	76	71.5 (18.6)	8.4 (1.5)	3.55 [−0.64; 7.74]; 0.096
BE RADIANT (week 48)	116	71.5 (20.9)	12.6 (1.4)	200	73.0 (20.9)	11.0 (1.0)	1.59 [−1.71; 4.88]; 0.344
Patient Global Assessment							
BE SURE (week 24)	79	3.87 (0.76)	-2.34 (0.08)	78	3.77 (0.83)	-1.69 (0.08)	-0.65 [-0.88; -0.43] <0.001 Hedges' g: -0.88 [-1.21; -0.55]
BE RADIANT (week 48)	115	3.67 (0.87)	-2.32 (0.07)	200	3.77 (0.87)	-2.05 (0.05)	-0.26 [-0.42; -0.10]; 0.001 Hedges' g: -0.37 [-0.60; -0.14]

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Health-related quality of life

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
DLQI ≤ 1					
BE SURE (week 24)	87	59 (67.8)	84	44 (52.4)	1.29 [1.01; 1.65]; 0.042
BE RADIANT (week 48)	128	101 (78.9)	228	157 (68.9)	1.13 [1.00; 1.29]; 0.060

Endpoint study	Bimekizumab			Adalimumab or Secukinumab			Bimekizumab vs Adalimumab or Secukinumab
	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	N[g]	Values at the start of the study MV (SD)	Change at the end of treatment[h] MV[i] (SE)	MD [95% CI][i]; p value
SF-36 PCS[l]							
BE SURE (week 24)	79	50.7 (8.5)	5.5 (0.6)	76	48.2 (10.0)	4.4 (0.6)	1.02 [−0.71; 2.75]; 0.246
BE RADIANT (week 48)	Endpoint not assessed						
SF-36 MCS[m]							
BE SURE (week 24)	79	52.1 (8.8)	4.1 (0.7)	76	52.8 (8.4)	2.2 (0.6)	1.93 [0.20; 3.67]; 0.029 Hedges' g[k]: 0.35 [0.03; 0.67]
BE RADIANT (week 48)	Endpoint not assessed						

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Side effects

Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]
Adverse events (presented additionally)[n]					
BE SURE (week 24)	83	58 (69.9)	84	59 (70.2)	-
BE RADIANT (week 48)	128	110 (85.9)	228	191 (83.8)	-
Serious adverse events (SAE)[n]					
BE SURE (week 24)	83	1 (1.2)	84	4 (4.8)	0.26 [0.03; 2.64]; 0.206
BE RADIANT (week 48)	128	8 (6.3)	228	19 (8.3)	0.74 [0.33; 1.65]; 0.455
Therapy discontinuation due to adverse events					
BE SURE (week 24)	83	1 (1.2)	84	2 (2.4)	0.41 [0.04; 4.54]; 0.459
BE RADIANT (week 48)	128	2 (1.6)	228	6 (2.6)	0.59 [0.12; 2.78]; 0.498
Infections and infestations (SOC, AE)					
BE SURE (week 24)	83	47 (56.6)	84	42 (50.0)	1.13 [0.85; 1.49]; 0.401
BE RADIANT (week 48)	128	89 (69.5)	228	135 (59.2)	1.15 [0.99; 1.35]; 0.076
Fungal infections (HLGT, AE)[o]					
BE SURE (week 24)	83	13 (15.7)	84	0 (0)	27.32 [1.65; 452.23][p]; < 0.001
BE RADIANT (week 48)	128	50 (39.1)	228	22 (9.6)	3.83 [2.47; 5.96]; < 0.001

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Endpoint study	Bimekizumab		Adalimumab or Secukinumab		Bimekizumab vs Adalimumab or Secukinumab
	N	Patients with event n (%)	N	Patients with event n (%)	RR [95% CI]; p value[a]

a. RR and CI: CMH test with region as stratification variable; p value: CMH test for general association. Missing values for the endpoints of morbidity and health-related quality of life were replaced using non-responder imputation (NRI).
b. Operationalised as score = 0, with a concurrent improvement of at least 2 scale points at the start of the study. The instrument was only assessed during the study in patients whose scalp was examined at the start of the study. The evaluation was only performed for patients who had a grade ≥ 2 at the start of the study.
b. Operationalised as score = 0, with a concurrent improvement of at least 2 scale points at the start of the study. The instrument was only assessed during the study in patients whose palms and soles were examined at the start of the study. This corresponded to only 20% of randomised patients in BE SURE and 19% in BE RADIANT studies.
d. The instrument was only assessed during the study in patients whose fingernails were examined at the start of the study. This corresponded to 56% of randomised patients in BE SURE and 45% in BE RADIANT studies.
e. Operationalised as score = 0 for all symptoms
f. When evaluating the PGA: MMRM with treatment, visit, treatment*visit, region and baseline value as fixed effects, visit as repeated measurement and patient as random effect
Number of patients who were taken into account in the evaluation for calculating the effect estimate; the values at start of study can be based on other patient numbers.
h. For the BE SURE study at 24 weeks and for the BE RADIANT study at 48 weeks
i. Changes, mean differences and CIs; MMRM with treatment, visit, treatment*visit, region and value at the start of the study as fixed effects, visit as repeated measurement and patient as random effect
j. Higher (increasing) values mean better symptomatology; positive effects (bimekizumab minus adalimumab or secukinumab) mean an advantage of bimekizumab (scale range 0 to 100).
k. Hedges' g: IQWiG calculation
l. Higher (increasing) values mean better health-related quality of life; positive effects (bimekizumab minus adalimumab or secukinumab) mean an advantage for bimekizumab (scale range of 7-70)
m. Higher (increasing) scores mean better health-related quality of life; positive effects (bimekizumab minus adalimumab or secukinumab) mean an advantage of bimekizumab (scale range of 6-70)
n. Without disease-related events
q. HLGT "Infectious diseases caused by fungi"; the events are primarily based on the PT "oral candidiasis"
p. IQWiG calculation, RR and 95% CI asymptotic with continuity correction of 0.5; p value unconditional exact test (CSZ method)

Abbreviations used:
CMH: Cochran-Mantel-Haenszel; HLGT: High Level Group Term; IGA: Investigator's Global Assessment; CI: confidence interval; MCS: Mental Component Summary; MD: mean difference; MMRM: mixed model with repeated measures; mNAPSI: modified nail psoriasis severity index; MV: mean value; n: number of patients with (at least 1) event; N: number of patients evaluated; PASI: Psoriasis Area and Severity Index; PCS: Physical Component Summary; pp-IGA: palmoplantar IGA; PSD: Psoriasis Symptom Diary; PT: preferred term; RCT: randomised controlled study; RR: relative risk; SD: standard deviation; SE: standard error; SF-36: short Form 36-item health survey; SAE: serious adverse event; AE: adverse event; VAS: visual analogue scale

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2. Number of patients or demarcation of patient groups eligible for treatment

a) Adults with moderate to severe plaque psoriasis for whom conventional therapy is not an option in the context of first-time systemic therapy

approx. 3,500 – 24,400 patients

b) Adults with moderate to severe plaque psoriasis who have responded inadequately to, or have not tolerated systemic therapy

approx. 32,400 – 97,100 patients

3. Requirements for a quality-assured application

The requirements in the product information are to be taken into account. The European Medicines Agency (EMA) provides the contents of the product information (summary of product characteristics, SmPC) for Bimzelx (active ingredient: bimekizumab) at the following publicly accessible link (last access: 23 February 2022):

https://www.ema.europa.eu/en/documents/product-information/bimzelx-epar-product-information_en.pdf

Consider discontinuing treatment in patients who do not show a response after 16 weeks of treatment.

4. Treatment costs

Annual treatment costs:

a) Adults with moderate to severe plaque psoriasis for whom conventional therapy is not an option in the context of first-time systemic therapy

Designation of the therapy	Annual treatment costs/ patient
Medicinal product to be assessed:	
Bimekizumab	€ 20,922.88
Additionally required SHI services	€ 74.45
Total	€ 20,997.33
Appropriate comparator therapy:	
Adalimumab	€ 11,435.41
Additionally required SHI services	€ 180.85
Total	€ 11,616.26
Guselkumab	€ 18,076.70

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Designation of the therapy	Annual treatment costs/ patient
Ixekizumab	€ 17,279.21
Secukinumab	€ 18,608.88

Costs after deduction of statutory rebates (LAUER-TAXE®) as last revised: 15 February 2022)

b) Adults with moderate to severe plaque psoriasis who have responded inadequately to, or have not tolerated systemic therapy

Designation of the therapy	Annual treatment costs/ patient
Medicinal product to be assessed:	
Bimekizumab	€ 20,922.88
Additionally required SHI services	€ 74.45
Total	€ 20,997.33
Appropriate comparator therapy:	
Adalimumab	€ 11,435.41
Additionally required SHI services	€ 180.85
Total	€ 11,616.26
Brodalumab	€ 18,061.81
Guselkumab	€ 18,076.70
Infliximab	€ 16,685.14
Additionally required SHI services	€ 180.85
Total	€ 16,865.99
Ixekizumab	€ 17,279.21
Risankizumab	€ 21,305.30
Additionally required SHI services	€ 74.45
Total	€ 21,379.75
Secukinumab	€ 18,608.88
Ustekinumab	€ 21,432.83
Additionally required SHI services	€ 74.45
Total	€ 21,507.28

Costs after deduction of statutory rebates (LAUER-TAXE®) as last revised: 15 February 2022)

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Other SHI services:

Designation of the therapy	Type of service	Unit cost	Number per patient per year	Costs per patient per year
Medicinal product to be assessed				
not applicable				
Appropriate comparator therapy				
Infliximab	Surcharge for the preparation of a parenteral solution containing monoclonal antibodies	€ 71	6.5	€ 461.50

II. The resolution will enter into force on the day of its publication on the website of the G-BA on 3 March 2022.

The justification to this resolution will be published on the website of the G-BA at www.g-ba.de.

Berlin, 3 March 2022

Federal Joint Committee (G-BA)
in accordance with Section 91 SGB V
The Chair

Prof. Hecken

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