Table SI. Participating centres

Centre	Setting	Data collection	Patient recruitment	Patients (*n*)
Radboudumc	Academic	Prospective	BioCAPTURE registry[a]	28
UMCG	Academic	Retrospective	Opt-out registry	31
Erasmus MC	Academic	Retrospective	Study-specific written informed consent	31
UMC Utrecht	Academic	Prospective	BioCAPTURE registry[a]	2
Maastricht UMC+	Academic	Prospective	BioCAPTURE registry[a]	1
Alrijne Ziekenhuis	Non-academic	Retrospective	Study-specific written informed consent	45
Medisch Centrum Leeuwarden	Non-academic	Retrospective	Study-specific written informed consent	24
ZGT Hengelo	Non-academic	Prospective	BioCAPTURE registry[a]	14
Bernhoven Ziekenhuis	Non-academic	Prospective	BioCAPTURE registry[a]	7
ZGT Almelo	Non-academic	Prospective	BioCAPTURE registry[a]	4
Amphia Ziekenhuis	Non-academic	Prospective	BioCAPTURE registry[a]	3
Catharina Ziekenhuis	Non-academic	Prospective	BioCAPTURE registry[a]	2
Slingeland Ziekenhuis	Non-academic	Prospective	BioCAPTURE registry[a]	1
St. Antonius Ziekenhuis	Non-academic	Prospective	BioCAPTURE registry[a]	2

[a]All patients provided informed consent to participate in the BioCAPTURE registry.
UMCG: University Medical Centre Groningen; Erasmus MC: Erasmus Medical Centre; Maastricht UMC+: Maastricht University Medical Center+; ZGT Hengelo: Ziekenhuisgroep Twente Hengelo; ZGT Almelo: Ziekenhuisgroep Twente Almelo; St. Antonius Ziekenhuis: Sint Antonius Ziekenhuis

Table SII. Patient and treatment characteristics (*n* = 195)

Characteristics	
Sex (male), *n* (%)	110 (56.4)
Age at psoriasis onset, years, median [IQR]	25.0 [23.0][a]
Age at guselkumab initiation, years, mean ± SD	49.4 ± 14.2
Psoriasis duration at guselkumab initiation, median [IQR]	18.0 [16.0][a]
Psoriasis Area and Severity Index at guselkumab initiation, median [IQR]	9.2 [9.3][b]
Dermatology Life Quality Index at guselkumab initiation, mean ± SD	14.3 ± 8.0[c]
Weight, mean ± SD	93.5 ± 18.0[d]
Body mass index, median [IQR]	28.9 [7.2][e]
Family history of psoriasis, *n* (%)	76 (39)[b]
Comorbidities, *n* (%)	
Psoriatic arthritis	40 (20.5)
Diabetes mellitus type 2	26 (13.3)
Hypertension	44 (22.6)
Dyslipidaemia	24 (12.3)
Myocardial infarction (history of)	7 (3.6)
Cerebrovascular incident or transient ischaemic attack (history of)	9 (4.6)
Malignancy (history of)	12 (6.2)
Non-melanoma skin cancer (history of)	7 (3.6)
Inflammatory bowel disease	4 (2.1)
Rheumatological condition (other than psoriatic arthritis)	23 (11.8)
Liver steatosis/fibrosis	25 (12.8)
Kidney disease	6 (3.1)
Hyperthyroidism	4 (2.1)
Hypothyroidism	5 (2.6)
Depression	25 (12.8)
Treatment history, *n* (%)	
Prior use of phototherapy	159 (81.5)
Prior use of acitretin	32 (16.4)
Prior use of ciclosporin	48 (24.6)
Prior use of fumaric acid esters	122 (62.6)
Prior use of methotrexate	156 (80.0)
Prior use of apremilast	13 (6.7)
Prior biologic use (yes)	137 (70.3)
Prior use of tumour necrosis factor-alpha inhibitors	108 (55.4)
Prior use of interleukin 12/23 inhibitor	97(49.7)
Prior use of interleukin-17 inhibitor	61 (31.3)
Prior use of interleukin-23 inhibitor	0 (0.0)
0 prior biologics	58 (29.7)
1 prior biologic	47 (24.1)
2 prior biologics	33 (16.9)
3 prior biologics	23 (11.8)
4 prior biologics	11 (5.6)
5 prior biologics	16 (8.2)
6 prior biologics	6 (3.1)
7 prior biologics	0 (0.0)
8 prior biologics	1 (0.5)
Guselkumab dosing regimen, *n* (%)	
Guselkumab dosing interval according to the label	162 (83.1)
Use of a shortened dosing interval (higher dose)	6 (3.1)
Use of a lengthened dosing interval (lower dose)	27 (13.8)
Interruption of guselkumab for >2 weeks	24 (12.3)
Concomitant or bridging psoriasis medication, *n* (%)*	16 (8.2)
Methotrexate	
Bridging	4 (2.1)
Concomitant	3 (1.5)
Bridging and concomitant	5 (2.6)
Acitretin	
Bridging	0 (0)
Concomitant	1 (0.5)
Bridging and concomitant	2 (1.0)
Fumaric acid esters	
Bridging	1 (0.5)
Reason for treatment discontinuation, *n* (%)	
Ineffectiveness	17 (8.7)
Side-effects[§]	12
Ineffectiveness + side-effects	1
Pregnancy wish	1
Fear of COVID-19	2
Other reasons	4
Unknown	1

[a]31 missing, [b]71 missing, c148 missing, [d]84 missing, [e]91missing.
*The use of accompanying conventional systemic antipsoriatic therapies (methotrexate, acitretin, ciclosporin or dimethyl fumarates) was classified into bridging therapy or combination therapy. To be classified as bridging therapy, the conventional systemic therapy had to be initiated prior to the start of guselkumab and continued for ≥ 28 but ≤ 90 days. To be classified as combination therapy, the conventional systemic was added at the start of or during guselkumab treatment and used for ≥28 days. Patients who initiated their systemic medication prior to guselkumab initiation but continued to use it for ≥ 90 days were assigned to a "bridging and combination therapy" group. [§]In patients who discontinued guselkumab due to side-effects, 'musculoskeletal complaints' was the most common side-effect, leading to discontinuation (*n* = 8). Six out of these 8 patients had a history of psoriatic arthritis.
SD: standard deviation; IQR: interquartile range.

Table SIII. Determinants of guselkumab drug survival as computed by univariable and multivariable cox regression analysis

	Event=discontinuation due to ineffectiveness Hazard ratio [95% CI]		Event = discontinuation due to side effects. Hazard ratio [95% CI]	
	Univariable analysis	Multivariable analysis	Univariable analysis	Multivariable analysis
Age	0.999 [0.967–1.032] ($p = 0.954$)		1.007 [0.969–1.046] ($p = 0.733$)	
Higher age at start guselkumab	1.001 [0.968–1.034] ($p = 0.964$)		1.007 [0.968–1.046] ($p = 0.737$)	
Higher age at psoriasis onset	1.008 [0.974–1.044] ($p = 0.632$)		0.997 [0.957–1.039] ($p = 0.893$)	
Sex (male)	1.115 [0.448–2.980] ($p = 0.766$)		1.174 [0.384–3.588] ($p = 0.779$)	
Diagnosis of psoriatic arthritis	1.711 [0.594–4.924] ($p = 0.320$)		**7.511 [2.261–24.950] ($p = 0.001$)**	7.511 [2.261–24.950] ($p = 0.001$)
Biologic naivety	**0.292 [0.067–1.269] ($p = 0.100$)**		**0.194 [0.025–1.489] ($p = 0.115$)**	
Higher baseline PASI score	0.975 [0.908–1.046] ($p = 0.479$)		0.920 [0.822–1.030] ($p = 0.149$)[a]	
Higher BMI	1.026 [0.907–1.162] ($p = 0.679$)		0.887 [0.759–1.037] ($p = 0.134$)[a]	
Higher weight	1.005 [0.971–1.041] ($p = 0.773$)		0.978 [0.942–1.015] ($p = 0.236$)	
Family history of psoriasis	**0.492 [0.165–1.464] ($p = 0.202$)**		1.799 [0.363–8.920] ($p = 0.472$)	
History of DM type 2	**3.664 [1.375–9.767] ($p = 0.009$)**	3.687 [1.135–11.984] ($p = 0.030$)	0.605 [0.079–4.654] ($p = 0.629$)	
History of hypertension	0.396 [0.091–1.724] ($p = 0.217$)		0.569 [0.126–2.567] ($p = 0.463$)	
History of depression	0.418 [0.056–3.143] ($p = 0.397$)		0.591 [0.077–4.549] ($p = 0.614$)	
Liver steatosis/fibrosis	0.864 [0.199–3.761] ($p = 0.846$)		1.241 [0.275–5.601] ($p = 0.779$)	

[a]Baseline PASI score and body mass index (BMI) were not incorporated in the multivariable model for side-effect-related survival of the original data, due to the high number of missing values. In sensitivity analysis using pooled imputed data, Baseline Psoriasis Area and Severity Index (PASI) and BMI were included in the multivariable model. Results of sensitivity analyses were similar to outcomes for the original data.
CI: confidence interval; DM: diabetes mellitus. Variables with a p-value < 0.2 in univariable analysis that were included in multivariable analyses are shown in bold type.