

Supplementary Table S1. ACR response rates at week 16 by number of tender and swollen joints at baseline (nonresponder imputation)

Variable, n (%)	Tender and swollen joints < 10 at baseline			Tender and swollen joints ≥ 10 at baseline		
	Secukinumab 300 mg (n = 13)	Secukinumab 150 mg (n = 19)	Placebo (n = 6)	Secukinumab 300 mg (n = 56)	Secukinumab 150 mg (n = 48)	Placebo (n = 24)
ACR20	10 (76.9)	8 (42.1)	1 (16.7)	27 (48.2)	18 (37.5)	5 (20.8)
ACR50	7 (53.8)	6 (31.6)	0	12 (21.4)	13 (27.1)	0
ACR70	4 (30.8)	3 (15.8)	0	8 (14.3)	6 (12.5)	0

ACR = American College of Rheumatology.

Supplementary Table S2. Baseline DAPSA scores, change from baseline to week 16 in DAPSA scores, and achievement of DAPSA-based remission and LDA at week 16 by number of tender and swollen joints at baseline

Variable	Tender and swollen joints < 10 at baseline			Tender and swollen joints ≥ 10 at baseline		
	Secukinumab 300 mg (n = 13)	Secukinumab 150 mg (n = 19)*	Placebo (n = 6)	Secukinumab 300 mg (n = 56)	Secukinumab 150 mg (n = 48)*	Placebo (n = 24)
Baseline DAPSA score (mean, SD)	18.9 (5.9)	18.2 (5.3)	18.5 (8.3)	68.7 (30.2)	66.2 (27.0)	66.4 (22.1)
Change from baseline in DAPSA score, mean (SD) [†]	-11.3 (8.2)	-7.5 (10.7)	-3.5 (8.2)	-27.6 (29.8)	-26.1 (29.3)	-12.3 (23.8)
DAPSA ≤4 (remission), n (%) [‡]	6 (46.2)	7 (36.8)	1 (16.7)	6 (10.7)	0	0
DAPSA >4 and ≤14 (LDA), n (%) [‡]	4 (30.8)	5 (26.3)	1 (16.7)	7 (12.5)	10 (20.8)	2 (8.3)

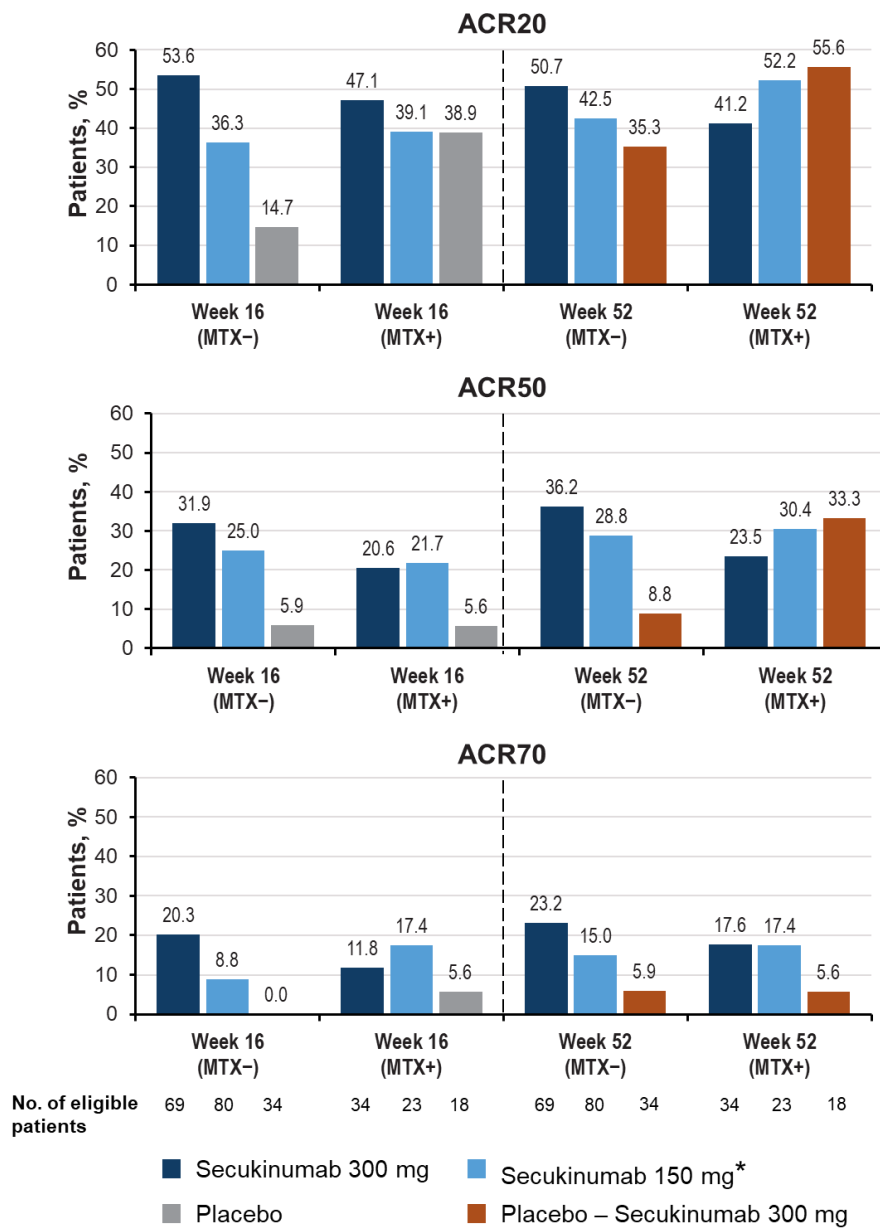
DAPSA = Disease Activity in Psoriatic Arthritis; LDA = low disease activity.

* Includes patients with up-titration to secukinumab 300 mg at week 16.

† Analysis was conducted using last-observation-carried-forward.

‡ Analysis was conducted using nonresponder imputation.

Supplementary Figure S1. Proportions of patients achieving ACR responses at weeks 16 and 52 by methotrexate use at baseline (nonresponder imputation)



ACR = American College of Rheumatology; MTX = methotrexate.

* Includes patients who uptitrated to secukinumab 300 mg at weeks 16, 28, or 40.

Supplementary Table S3. Select secukinumab efficacy variables at week 52

Primary efficacy variable			
	Secukinumab 300 mg (n = 103)	Secukinumab 150 mg (n = 103)[†]	Placebo (n = 52)[‡]
Outcome, n/N (%)[*]			
ACR20, n (%)	49 (47.6)	46 (44.7)	12 (23.1)
Secondary and exploratory binary efficacy variables			
	Secukinumab 300 mg (n = 103)	Secukinumab 150 mg (n = 103)[†]	Placebo (n = 52)[‡]
Outcome, n/N (%)[*]			
ACR50, n (%)	33 (32.0)	30 (29.1)	3 (5.8)
ACR70, n (%)	22 (21.4)	16 (15.5)	1 (1.9)
Resolution of enthesitis (LEI + SPARCC), n (%) [§]	28/74 (37.8)	33/76 (43.4)	7/39 (17.9)
Resolution of dactylitis, n (%) [¶]	29/49 (59.2)	28/52 (53.8)	4/23 (17.4)
PASI75, n (%) [#]	53/79 (67.1)	49/83 (59.0)	7/43 (16.3)
PASI90, n (%) [#]	38/79 (48.1)	39/83 (47.0)	4/43 (9.3)
PASI100, n (%) [#]	25/79 (31.6)	31/83 (37.3)	1/43 (2.3)

MDA, n (%)	24 (23.3)	30 (29.1)	2 (3.8)
Tender joint response (TJC \leq 1)	29 (28.2)	30 (29.1)	3 (5.8)
Swollen joint response (SJC \leq 1)	44 (42.7)	47 (45.6)	8 (15.4)
Secondary and exploratory continuous efficacy variables			
Outcome, change from baseline, mean (SE)**	Secukinumab 300 mg (n = 103)	Secukinumab 150 mg (n = 103)[†]	Placebo (n = 52)[‡]
DAS28-CRP	-1.9 (0.14)	-1.7 (0.17)	-0.3 (0.16)
PASDAS	-2.9 (0.17)	-2.8 (0.22)	-0.6 (0.19)
HAQ-DI	-0.4 (0.06)	-0.4 (0.07)	-0.2 (0.06)
SF-12 mental component score	3.6 (1.13)	2.8 (1.06)	2.7 (1.54)
SF-12 physical component score	6.7 (0.97)	6.7 (1.04)	2.7 (1.41)
RAPID3	-6.4 (0.64)	-5.6 (0.75)	-1.1 (0.74)

ACR = American College of Rheumatology; ANCOVA = analysis of covariance; DAS28-CRP = Disease Activity Score in 28 joints using C-reactive protein; HAQ-DI = Health Assessment Questionnaire – Disability Index; LEI = Leeds Enthesitis Index; MDA = minimal disease activity; PASDAS = Psoriatic Arthritis Disease Activity Score; PASI = Psoriasis Area and Severity Index; PBO = placebo; RAPID3 = Routine Assessment of Patient Index Data 3; SE = standard error; SF-12 = Short Form 12-question Health

Survey; SJC = swollen joint count; SPARCC = Spondyloarthritis Research Consortium of Canada Enthesitis Index; TJC = tender joint count.

* Analysis was conducted using nonresponder imputation.

† Includes patients with uptitration to secukinumab 300 mg at weeks 16, 28, or 40.

‡ Up to week 16.

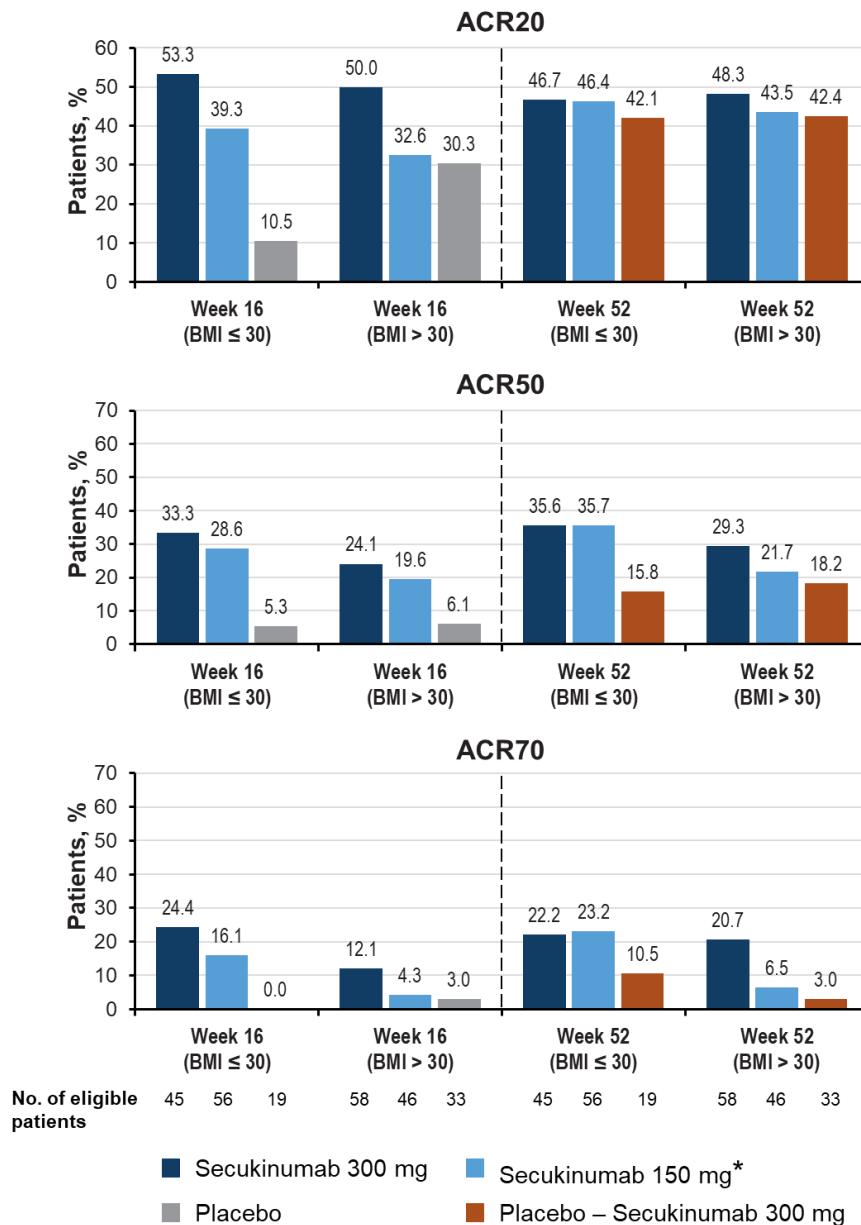
§ Results are from the combined LEI and SPARCC subset. Enthesitis was determined in patients who had an enthesitis score ≥ 1 when sites from LEI and SPARCC were assessed together at baseline: secukinumab 300 mg, n = 74; secukinumab 150 mg, n = 76; placebo, n = 39.

¶ Dactylitis was determined in patients who had a Leeds Dactylitis Index ≥ 1 at baseline: secukinumab 300 mg, n = 49; secukinumab 150 mg, n = 52; placebo, n = 23.

Results are from patients having psoriatic skin involvement in $\geq 3\%$ of their body surface area at baseline: secukinumab 300 mg, n = 79; secukinumab 150 mg, n = 83; placebo, n = 43.

** Summary statistics based on observed data.

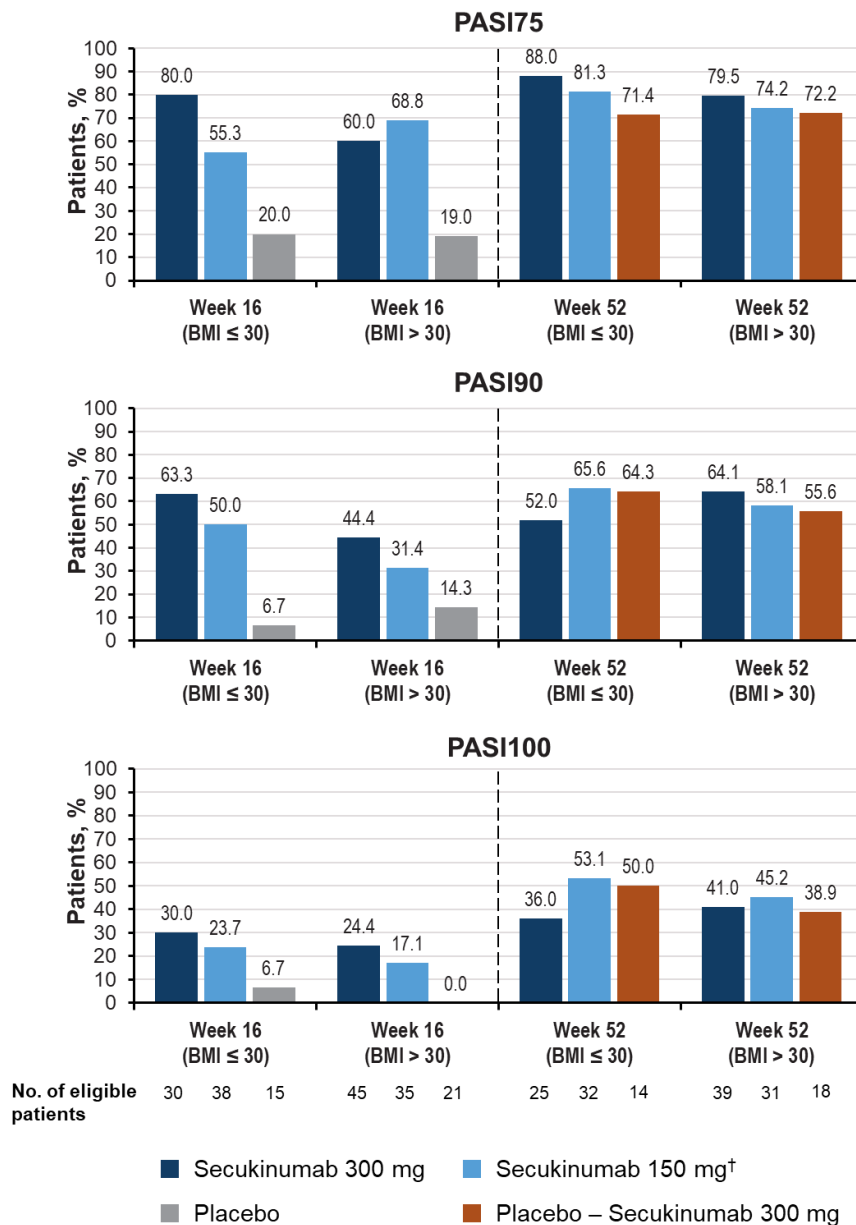
Supplementary Figure S2. Proportions of patients achieving ACR responses by BMI at weeks 16 and 52 (nonresponder imputation)



ACR = American College of Rheumatology; BMI = body mass index.

* Includes patients with uptitration to secukinumab 300 mg at weeks 16, 28, or 40.

Supplementary Figure S3. Proportions of patients achieving PASI responses by BMI at baseline (nonresponder imputation)*



BMI = body mass index; PASI = Psoriasis Area and Severity Index.

* Includes patients with psoriasis involving $\geq 3\%$ of the body surface area.

[†] Includes patients with uptitration to secukinumab 300 mg after week 16.

Supplementary Table S4. Serious adverse events up to week 16

Patients with serious AEs, n (%)	Secukinumab 300 mg (n = 103)	Secukinumab 150 mg (n = 103)	Placebo (n = 52)
Pubic pain	1 (1.0)	0	0
Seizure	1 (1.0)	0	0
Cardiac arrest	0	0	1 (1.9)
Myocardial infarction	0	1 (1.0)	0
Atypical pneumonia	0	0	1 (1.9)
Ischemic stroke	0	0	1 (1.9)
Syncope	0	1 (1.0)	0
Asthma	0	1 (1.0)	0
Pulmonary thrombosis	0	1 (1.0)	0
Thrombosis	0	1 (1.0)	0

AE = adverse event.

Supplementary Table S5. Adverse events up to week 52

Patients with AEs, n (%)	Any secukinumab 300 mg* (n = 197)	Any secukinumab 150 mg† (n = 103)	Any secukinumab‡ (n = 258)
Any AE	144 (73.1)	69 (67.0)	179 (69.4)
Serious AEs	19 (9.6)	8 (7.8)	22 (8.5)
Death	1 (0.5)	0	1 (0.4)
Discontinuation due to AEs	8 (4.1)	1 (1.0)	8 (3.1)
Common AEs (in ≥ 3% of patients in any treatment group)			
Upper respiratory tract infection	27 (13.7)	14 (13.6)	33 (12.8)
Diarrhea	15 (7.6)	7 (6.8)	20 (7.8)
Urinary tract infection	11 (5.6)	6 (5.8)	15 (5.8)
Hypertension	11 (5.6)	7 (6.8)	14 (5.4)
Sinusitis	12 (6.1)	4 (3.9)	14 (5.4)
Arthralgia	11 (5.6)	6 (5.8)	13 (5.0)
Back pain	10 (5.1)	8 (7.8)	13 (5.0)
Bronchitis	13 (6.6)	4 (3.9)	13 (5.0)
Nasopharyngitis	11 (5.6)	6 (5.8)	13 (5.0)

Influenza	9 (4.6)	4 (3.9)	12 (4.7)
Headache	7 (3.6)	5 (4.9)	10 (3.9)
Musculoskeletal pain	10 (5.1)	3 (2.9)	10 (3.9)
Pain in extremity	8 (4.1)	6 (5.8)	10 (3.9)
Rash	6 (3.0)	6 (5.8)	10 (3.9)
Fatigue	6 (3.0)	5 (4.9)	9 (3.5)
Psoriatic arthropathy	6 (3.0)	7 (6.8)	9 (3.5)
Abdominal pain	6 (3.0)	3 (2.9)	8 (3.1)
Gastro-esophageal reflux disease	5 (2.5)	4 (3.9)	7 (2.7)
Muscle spasms	5 (2.5)	4 (3.9)	7 (2.7)
Nausea	3 (1.5)	4 (3.9)	7 (2.7)
Psoriasis	3 (1.5)	5 (4.9)	6 (2.3)
Selected AEs of interest			
Candidiasis			
<i>Candida</i> infection	1 (0.5)	2 (1.9)	3 (1.2)
Oral candidiasis	1 (0.5)	0	1 (0.4)
Vulvovaginal candidiasis	1 (0.5)	0	1 (0.4)
Skin <i>Candida</i>	0	1 (1.0)	1 (0.4)

Major adverse cardiac events			
Ischemic stroke	1 (0.5)	0	1 (0.4)
Myocardial infarction	0	1 (1.0)	1 (0.4)
Malignant or unspecified tumors			
Breast cancer	1 (0.5)	0	1 (0.4)
Prostate cancer	1 (0.5)	0	1 (0.4)
Neutropenia	1 (0.5)	0	1 (0.4)

AE = adverse event.

* Any secukinumab 300-mg group included 103 patients who were assigned to receive secukinumab 300 mg in treatment period 1; 42 nonresponders who were randomized to secukinumab 150 mg in treatment period 1 and who switched to secukinumab 300 mg in treatment period 2; and all 52 patients randomized to placebo in treatment period 1 (of note, 6 patients never received secukinumab, including 1 patient in the placebo group who died due to cardiac arrest in treatment period 1).

† Any secukinumab 150-mg group included 103 patients who were randomized to secukinumab 150 mg in treatment period 1 (including 42 patients who switched to 300 mg and are also counted in the “any secukinumab 300 mg” group).

‡ Any secukinumab group included 103 patients randomized to secukinumab 300 mg in treatment period 1; 103 patients randomized to 150 mg in treatment period 1; and 52 patients randomized to placebo in treatment period 1 (of note, 6 patients had never received secukinumab, including 1 patient in the placebo group who died due to cardiac arrest in treatment period 1).

Supplementary Table S6. Serious adverse events up to week 52

n (%)	Any secukinumab 300 mg (n = 197)*	Any secukinumab 150 mg (n = 103)†	Any secukinumab (n = 258)‡
Syncope	2 (1.0)	1 (1.0)	2 (0.8)
Asthma	2 (1.0)	1 (1.0)	2 (0.8)
Atrial fibrillation	1 (0.5)	0	1 (0.4)
Bradycardia	1 (0.5)	0	1 (0.4)
Cardiac arrest	1 (0.5)	0	1 (0.4)
Abdominal pain	1 (0.5)	0	1 (0.4)
Diarrhea	1 (0.5)	0	1 (0.4)
Diverticular perforation	1 (0.5)	0	1 (0.4)
Pancreatitis acute	1 (0.5)	0	1 (0.4)
Asthenia	1 (0.5)	0	1 (0.4)
Non-cardiac chest pain	1 (0.5)	0	1 (0.4)
Atypical pneumonia	1 (0.5)	0	1 (0.4)
Bronchitis	1 (0.5)	0	1 (0.4)
Bursitis infective	1 (0.5)	1 (1.0)	1 (0.4)

Cellulitis	1 (0.5)	1 (1.0)	1 (0.4)
Diverticulitis	1 (0.5)	0	1 (0.4)
Intestinal sepsis	1 (0.5)	0	1 (0.4)
Pneumonia	1 (0.5)	0	1 (0.4)
Contusion	1 (0.5)	0	1 (0.4)
Foot fracture	1 (0.5)	0	1 (0.4)
Dehydration	1 (0.5)	0	1 (0.4)
Gout	1 (0.5)	1 (1.0)	1 (0.4)
Arthritis	1 (0.5)	0	1 (0.4)
Pubic pain	1 (0.5)	0	1 (0.4)
Spondylitis	1 (0.5)	1 (1.0)	1 (0.4)
Breast cancer	1 (0.5)	0	1 (0.4)
Prostate cancer	1 (0.5)	0	1 (0.4)
Cerebral cyst	1 (0.5)	0	1 (0.4)
Ischemic stroke	1 (0.5)	0	1 (0.4)
Seizure	1 (0.5)	0	1 (0.4)
Device loosening	1 (0.5)	1 (1.0)	1 (0.4)
Acute kidney injury	1 (0.5)	0	1 (0.4)
Dyspnea	1 (0.5)	0	1 (0.4)

Pulmonary thrombosis	1 (0.5)	1 (1.0)	1 (0.4)
Rash	1 (0.5)	0	1 (0.4)
Deep vein thrombosis	1 (0.5)	1 (1.0)	1 (0.4)
Thrombosis	1 (0.5)	1 (1.0)	1 (0.4)
Myocardial infarction	0	1 (1.0)	1 (0.4)
Meningitis aseptic	0	1 (1.0)	1 (0.4)
Lower limb fracture	0	1 (1.0)	1 (0.4)

* Any secukinumab 300-mg group included 103 patients who were assigned to receive secukinumab 300 mg in treatment period 1; 42 nonresponders who were randomized to secukinumab 150 mg in treatment period 1 and who switched to secukinumab 300 mg in treatment period 2; and all 52 patients randomized to placebo in treatment period 1 (of note, 6 patients never received secukinumab, including 1 patient in the placebo group who died due to cardiac arrest in treatment period 1).

† Any secukinumab 150-mg group included 103 patients who were randomized to secukinumab 150 mg in treatment period 1 (including 42 patients who switched to 300 mg and are also counted in the “any secukinumab 300 mg” group).

‡ Any secukinumab group included 103 patients randomized to secukinumab 300 mg in treatment period 1; 103 patients randomized to 150 mg in treatment period 1; and 52 patients randomized to placebo in treatment period 1 (of note, 6 patients had never received secukinumab, including 1 patient in the placebo group who died due to cardiac arrest in treatment period 1).