

Table SI. Patients' characteristics at baseline

	All patients (n=2,384)	Adalimumab (n=911)	Etanercept (n=327)	Infliximab (n=152)	Secukinumab (n=323)	Ustekinumab (n=671)
Female sex, n (%)	866 (36.3)	328 (36.0)	118 (36.1)	49 (32.2)	127 (39.3)	244 (36.4)
Disease duration, years, mean (SD)	20.5 (12.5)	20.1 (12.2)	21.4 (12.8)	21.6 (14.0)	20.4 (12.0)	20.0 (12.6)
Missing, n (%)	784 (32.9)	322 (35.3)	76 (23.2)	16 (10.5)	94 (29.1)	276 (41.1)
Age at start of biological treatment, years, mean (SD)	43.2 (14.7)	43.4 (14.5)	43.6 (15.6)	45.4 (14.1)	42.9 (14.1)	42.5 (15.1)
Weight, kg, mean (SD)	90.8 (23.5)	90.3 (23.2)	89.6 (22.7)	94.5 (24.6)	90.8 (22.6)	91.1 (24.3)
Missing, n (%)	173 (7.3)	66 (7.2)	33 (10.1)	3 (2.0)	18 (5.6)	53 (7.9)
Weight categories, n (%)						
<70 kg	406 (18.4)	161 (19.1)	58 (19.7)	19 (12.8)	53 (17.4)	115 (18.6)
70–90 kg	810 (36.6)	312 (36.9)	110 (37.4)	48 (32.2)	125 (41.0)	215 (34.8)
90–110 kg	632 (28.6)	236 (27.9)	84 (28.6)	50 (33.6)	76 (24.9)	186 (30.1)
>110 kg	363 (16.4)	136 (16.1)	42 (14.3)	32 (21.5)	51 (16.7)	102 (16.5)
Missing	173 (7.3)	66 (7.2)	33 (10.1)	3 (2.0)	18 (5.6)	53 (7.9)
Alcohol abuse, n (%)	257 (10.8)	92 (10.1)	42 (12.8)	18 (11.8)	35 (10.8)	70 (10.4)
Smoking ^a , n (%)	388 (16.3)	157 (17.2)	60 (18.3)	26 (17.1)	41 (12.7)	104 (15.5)
Smoking ^b , n (%)						
Non-smoker	NS	40 (44.4)	NS	NS	90 (47.4)	39 (57.4)
Previous smoker	NS	33 (36.7)	NS	NS	45 (23.7)	13 (19.1)
Smoker	NS	17 (18.9)	NS	NS	55 (28.9)	16 (23.5)
Missing	2,029 (85.1)	821 (90.1)	322 (98.5)	150 (98.7)	133 (41.2)	603 (89.9)
Concomitant methotrexate, n (%)	306 (12.8)	122 (13.4)	40 (12.2)	63 (41.4)	20 (6.2)	61 (9.1)
Baseline PASI, mean (SD)	11.6 (7.2)	11.4 (7.0)	11.2 (7.6)	13.2 (8.7)	11.5 (7.3)	11.8 (6.9)
Missing, n (%)	417 (17.5)	171 (18.8)	82 (25.1)	22 (14.5)	50 (15.5)	92 (13.7)
Psoriatic arthritis, n (%)	773 (34.5)	355 (40.5)	135 (41.3)	70 (47.0)	127 (50.2)	86 (13.5)
Missing	144 (6.0)	35 (3.8)		3 (2.0)	70 (21.7)	36 (5.4)
Diabetes, n (%)	209 (8.8)	81 (8.9)	27 (8.3)	15 (9.9)	22 (6.8)	64 (9.5)
Charlson Comorbidity Index ^c , n (%)	213 (8.9)	88 (9.7)	38 (11.6)	14 (9.2)	16 (5.0)	57 (8.5)
Charlson Comorbidity Index without diabetes ^c , n (%)	181 (7.6)	75 (8.2)	31 (9.5)	13 (8.6)	15 (4.6)	47 (7.0)
Severe heart disease, n (%)	NS	12 (1.3)	5 (1.5)	NS	NS	11 (1.6)
Concomitant local treatment, n (%)	1,092 (45.8)	368 (40.4)	136 (41.6)	45 (29.6)	192 (59.4)	351 (52.3)
Hypertension, n (%)	415 (17.4)	159 (26.0)	85 (25.7)	39 (25.7)	28 (8.7)	104 (15.5)
Dose of biologic at 6 months, n (%)						
Under label	NS	14 (1.8)	7 (2.6)	11 (9.8)	NS	11 (2.4)
On label	1715	748 (96.1)	168 (62.5)	86 (76.8)	280	433 (95.0)
Over label	NS	16 (2.1)	94 (34.9)	15 (13.4)	NS	12 (2.6)
Missing, n (%)	NS	133 (14.6)	58 (17.7)	40 (26.3)	NS	215 (32.0)
Socioeconomic status in cohort ^d , n (%)						
Group 1	480 (20.1)	171 (18.8)	47 (14.4)	15 (9.9)	104 (32.2)	143 (21.3)
Group 2	479 (20.1)	169 (18.6)	42 (12.8)	40 (26.3)	80 (24.8)	148 (22.1)
Group 3	476 (20.0)	190 (20.9)	61 (18.7)	30 (19.7)	72 (22.3)	123 (18.3)
Group 4	478 (20.1)	186 (20.4)	69 (21.1)	44 (28.9)	50 (15.5)	129 (19.2)
Group 5	471 (19.8)	195 (21.4)	108 (33.0)	23 (15.1)	17 (5.3)	128 (19.1)
Socioeconomic status in the Danish population ^d , n (%)						
Group 1	212 (8.9)	65 (7.1)	26 (8.0)	3 (2.0)	33 (10.2)	85 (12.7)
Group 2	344 (14.4)	124 (13.6)	41 (12.5)	25 (16.4)	56 (17.3)	98 (14.6)
Group 3	545 (22.9)	214 (23.5)	57 (17.4)	43 (28.3)	79 (24.5)	152 (22.7)
Group 4	682 (28.6)	282 (31.0)	88 (26.9)	50 (32.9)	85 (26.3)	177 (26.4)
Group 5	601 (25.2)	226 (24.8)	115 (35.2)	31 (20.4)	70 (21.7)	159 (23.7)

^aData based on International Classification of Diseases, 10th Revision (ICD-10) codes, pharmacological treatment, and treatment interventions. ^bData from the DERMBIO registry. ^cAn index above 0. ^dSocioeconomic status was defined as 5 groups (group 1 with the lowest income) based on the mean gross annual income (standardized by age) during a 5-year period before patient inclusion to the DERMBIO registry.

SD: standard deviation; NS: not shown due to less than 3 patients in 1 of the censored groups; PASI Psoriasis Area and Severity Index.

Table SII. Response rates (%) for Psoriasis Area and Severity Index (PASI) ≤2.0, PASI 75 and PASI 90 at 3, 6 and 12 months

	All patients	Adalimumab	Etanercept	Infliximab	Secukinumab	Ustekinumab
PASI ≤ 2.0						
3 months (n=2,075)	61.6	59.9	39.4	61.1	87.7	62.0
6 months (n=1,728)	65.8	65.1	42.4	67.0	87.0	67.9
12 months (n=1,381)	70.5	68.5	51.8	73.6	89.6	73.6
PASI 75						
3 months (n=1,711)	64.1	61.4	42.6	64.7	88.4	64.9
6 months (n=1,408)	69.5	68.6	50.6	71.8	87.7	69.9
12 months (n=1,104)	74.3	72.7	50.7	78.1	89.1	79.2
PASI 90						
3 months (n=1,711)	45.8	41.8	19.1	48.0	78.0	46.2
6 months (n=1,408)	51.6	50.9	23.8	60.0	79.9	50.1
12 months (n=1,104)	55.1	55.9	31.7	59.4	76.6	55.0

Table SIII. Results of the univariate analyses between the primary endpoint (Psoriasis Area and Severity Index (PASI) ≤ 2.0 at 6 months) and the patient characteristics

Patient characteristics	p-value	Unadjusted OR (95% CI)
Female sex	0.26	0.88 (0.72, 1.09)
Age at start of biological treatment	0.001	0.988 (0.982, 0.995)
Weight	<0.001	0.989 (0.985, 0.994)
Alcohol abuse	0.006	0.64 (0.47, 0.88)
Smoking ^a	<0.001	0.63 (0.49, 0.82)
Smoking ^b	0.14	
Non-smoker		Reference
Previous smoker		0.48 (0.22, 1.02)
Smoker		0.83 (0.36, 1.90)
Biologic therapy	<0.001	
Adalimumab		Reference
Etanercept		0.40 (0.29, 0.54)
Infliximab		1.09 (0.70, 1.69)
Secukinumab		3.61 (2.35, 5.54)
Ustekinumab		1.14 (0.89, 1.45)
Concomitant methotrexate	0.94	1.02 (0.76, 1.37)
PsA diagnosis	0.31	0.89 (0.72, 1.10)
Baseline PASI	<0.001	0.966 (0.952, 0.981)
Charlson Comorbidity Index	0.01	0.64 (0.46, 0.89)
Charlson Comorbidity Index without diabetes	0.03	0.66 (0.46, 0.94)
Diabetes	0.006	0.64 (0.46, 0.87)
Hypertension	0.001	0.65 (0.51, 0.84)
Concomitant local treatment	0.56	1.10 (0.90, 1.34)
Severe heart disease	0.87	1.17 (0.51, 2.71)
Disease duration	0.03	0.990 (0.981, 0.999)
Dose of biologic at 6 months	<0.001	
Under label		1.62 (0.73, 3.57)
On label		Reference
Over label		0.27 (0.18, 0.41)
Socioeconomic status in cohort	0.04	
Group 1		Reference
Group 2		0.82 (0.59, 1.15)
Group 3		0.81 (0.58, 1.12)
Group 4		0.62 (0.45, 0.86)
Group 5		0.68 (0.49, 0.94)
Socioeconomic status in the Danish population	0.03	
Group 1		Reference
Group 2		0.85 (0.52, 1.37)
Group 3		0.64 (0.41, 0.99)
Group 4		0.58 (0.38, 0.88)
Group 5		0.61 (0.39, 0.94)

^aData based on International Classification of Diseases, 10th Revision (ICD-10) codes, pharmacological treatment, and treatment interventions. ^bData from the DERMBIO registry.

PASI: Psoriasis Area and Severity Index; OR: odds ratio; 95% CI: 95% confidence interval; PsA: psoriatic arthritis.

Table SIV. Odds ratios (OR) of the multivariable logistic models

	OR (95% CI)	p-value	OR (95% CI)	p-value
PASI ≤ 2.0 – 3 months		PASI ≤ 2.0 – 6 months (primary model)		
Age at start of biological treatment	0.98 (0.97, 0.99)	<0.001	0.99 (0.98, 1.00)	0.054
Weight	0.987 (0.983, 0.992)	<0.001	0.989 (0.984, 0.994)	<0.001
Alcohol abuse	0.81 (0.59, 1.12)	0.21	0.78 (0.55, 1.09)	0.14
Smoking	0.76 (0.58, 0.98)	0.04	0.74 (0.56, 0.97)	0.03
Biologic therapy				
Adalimumab (Reference)				
Etanercept	0.39 (0.29, 0.53)	<0.001	0.38 (0.27, 0.52)	<0.001
Infliximab	1.45 (0.96, 2.20)	0.08	1.16 (0.74, 1.82)	0.51
Secukinumab	5.49 (3.68, 8.19)	<0.001	3.57 (2.29, 5.55)	<0.001
Ustekinumab	1.11 (0.88, 1.40)	0.37	1.12 (0.87, 1.44)	0.38
Baseline PASI	0.95 (0.94, 0.97)	<0.001	0.97 (0.96, 0.98)	<0.001
Charlson Comorbidity Index	0.82 (0.57, 1.18)	0.29	0.88 (0.60, 1.30)	0.53
Diabetes	0.75 (0.52, 1.08)	0.12	0.83 (0.58, 1.19)	0.30
Hypertension	1.11 (0.83, 1.47)	0.49	1.03 (0.76, 1.39)	0.85
Disease duration	1.02 (1.01, 1.03)	<0.001	1.00 (0.99, 1.01)	0.92
Socioeconomic status in cohort				
Group 1 (Reference)				
Group 2	1.24 (0.89, 1.74)	0.21	1.14 (0.77, 1.68)	0.51
Group 3	1.20 (0.86, 1.67)	0.28	1.13 (0.77, 1.65)	0.55
Group 4	1.00 (0.72, 1.39)	1.00	0.92 (0.63, 1.34)	0.65
Group 5	1.40 (0.99, 1.96)	0.055	1.09 (0.74, 1.61)	0.66
Female sex	1.12 (0.90, 1.39)	0.32	–	–
Methotrexate	0.81 (0.61, 1.08)	0.15	–	–
<i>Additional analyses with categorized continuous variables</i>				
Age at start of biological treatment				
< 30 years (Reference)				
30–45 years	0.74 (0.54, 1.02)	0.07	0.90 (0.62, 1.30)	0.57
45–60 years	0.46 (0.33, 0.66)	<0.001	0.66 (0.44, 0.98)	0.04
> 60 years	0.45 (0.29, 0.68)	<0.001	0.71 (0.44, 1.14)	0.15
Weight				
< 70 kg (Reference)				
70–90 kg	0.86 (0.64, 1.15)	0.31	0.80 (0.58, 1.10)	0.17
90–110 kg	0.57 (0.42, 0.79)	0.001	0.66 (0.47, 0.92)	0.02
> 110 kg	0.44 (0.31, 0.62)	<0.001	0.44 (0.30, 0.64)	<0.001
Disease duration				
< 10 years (Reference)				
> 10 years	1.25 (0.99, 1.59)	0.06	0.93 (0.71, 1.22)	0.61
PASI ≤ 2.0 – 12 months		PASI 75 – 3 months		
Age at start of biological treatment	–	–	0.974 (0.964, 0.984)	<0.001
Weight	0.990 (0.985, 0.995)	<0.001	0.988 (0.983, 0.992)	<0.001
Alcohol abuse	0.679 (0.461, 0.999)	0.049	–	–
Smoking	0.78 (0.56, 1.08)	0.13	0.92 (0.68, 1.23)	0.56
Biologic therapy				
Adalimumab (Reference)				
Etanercept	0.46 (0.33, 0.66)	<0.001	0.40 (0.29, 0.56)	<0.001
Infliximab	1.39 (0.82, 2.36)	0.22	1.16 (0.72, 1.85)	0.54
Secukinumab	4.08 (2.31, 7.18)	<0.001	5.02 (3.23, 7.80)	<0.001
Ustekinumab	1.26 (0.94, 1.69)	0.12	1.08 (0.84, 1.39)	0.56
Baseline PASI	0.96 (0.94, 0.97)	<0.001	1.06 (1.04, 1.08)	<0.001
Charlson Comorbidity Index	0.76 (0.49, 1.18)	0.22	0.76 (0.52, 1.12)	0.16
Diabetes	0.66 (0.44, 0.99)	0.05	–	–
Hypertension	–	–	1.14 (0.83, 1.57)	0.42
Disease duration	–	–	1.02 (1.01, 1.03)	<0.001
Methotrexate	–	–	1.00 (0.73, 1.37)	1.00
Local treatment	1.47 (1.14, 1.89)	0.003	1.31 (1.05, 1.64)	0.02
Socioeconomic status in cohort				
Group 1 (Reference)				
Group 2	–	–	1.13 (0.77, 1.65)	0.53
Group 3	–	–	0.96 (0.66, 1.38)	0.82
Group 4	–	–	1.12 (0.77, 1.61)	0.56
Group 5	–	–	1.43 (0.98, 2.09)	0.06
<i>Additional analyses with categorized continuous variables</i>				
Age at start of biological treatment				
< 30 years (Reference)				
30–45 years	–	–	0.67 (0.47, 0.95)	0.03
45–60 years	–	–	0.44 (0.30, 0.65)	<0.001
> 60 years	–	–	0.40 (0.25, 0.64)	<0.001
Weight				
< 70 kg (Reference)				
70–90 kg	0.77 (0.52, 1.12)	0.17	0.92 (0.67, 1.25)	0.58
90–110 kg	0.63 (0.42, 0.92)	0.02	0.67 (0.49, 0.93)	0.02
> 110 kg	0.49 (0.32, 0.76)	0.001	0.41 (0.29, 0.60)	<0.001
Disease duration				
< 10 years (Reference)				
> 10+ years	–	–	1.24 (0.95, 1.61)	0.11

Table SIV. (contd)

	OR (95% CI)	p-value	OR (95% CI)	p-value
	PASI 75 – 6 months		PASI 75 – 12 months	
Age at start of biological treatment	0.989 (0.978, 1.001)	0.08	–	–
Weight	0.989 (0.984, 0.995)	<0.001	0.989 (0.983, 0.996)	0.001
Alcohol abuse	0.64 (0.43, 0.95)	0.03	0.63 (0.39, 1.00)	0.051
Smoking	0.89 (0.64, 1.23)	0.47	0.75 (0.51, 1.12)	0.16
Biologic therapy				
Adalimumab (Reference)				
Etanercept	0.44 (0.30, 0.65)	<0.001	0.41 (0.27, 0.63)	<0.001
Infliximab	1.02 (0.60, 1.75)	0.94	1.38 (0.71, 2.71)	0.34
Secukinumab	3.46 (2.08, 5.77)	<0.001	2.58 (1.40, 4.78)	0.002
Ustekinumab	1.03 (0.77, 1.38)	0.83	1.47 (1.04, 2.09)	0.03
Baseline PASI	1.11 (1.08, 1.13)	<0.001	1.07 (1.05, 1.10)	<0.001
Charlson Comorbidity Index	0.89 (0.57, 1.39)	0.61	0.95 (0.56, 1.62)	0.86
Diabetes	0.86 (0.56, 1.32)	0.50	0.44 (0.27, 0.72)	0.001
Hypertension	0.88 (0.62, 1.24)	0.46	–	–
Disease duration	1.00 (0.99, 1.01)	0.64	–	–
Methotrexate	–	–	0.98 (0.65, 1.48)	0.92
Local treatment	1.08 (0.84, 1.38)	0.56	1.73 (1.27, 2.35)	<0.001
Female sex	–	–	1.30 (0.93, 1.82)	0.12
Socioeconomic status in cohort				
Group 1 (Reference)				
Group 2	0.82 (0.52, 1.31)	0.42	1.20 (0.70, 2.04)	0.51
Group 3	0.70 (0.44, 1.10)	0.12	1.07 (0.64, 1.78)	0.79
Group 4	0.73 (0.46, 1.14)	0.16	0.82 (0.51, 1.33)	0.43
Group 5	0.94 (0.60, 1.50)	0.81	0.97 (0.59, 1.57)	0.89
<i>Additional analyses with categorized continuous variables</i>				
Age at start of biological treatment				
<30 years (Reference)				
30–45 years	0.77 (0.50, 1.19)	0.24	–	–
45–60 years	0.57 (0.36, 0.91)	0.02	–	–
>60 years	0.83 (0.47, 1.45)	0.51	–	–
Weight				
<70 kg (Reference)				
70–90 kg	1.00 (0.69, 1.44)	1.00	0.69 (0.43, 1.13)	0.14
90–110 kg	0.71 (0.48, 1.03)	0.07	0.52 (0.31, 0.87)	0.01
>110 kg	0.45 (0.29, 0.69)	<0.001	0.39 (0.22, 0.68)	0.001
Disease duration				
<10 years (Reference)				
>10 years	0.88 (0.64, 1.21)	0.43	–	–
		PASI 90 – 3 months		PASI 90 – 6 months
Age at start of biological treatment	0.984 (0.976, 0.993)	0.001	0.994 (0.983, 1.005)	0.26
Weight	0.987 (0.982, 0.992)	<0.001	0.989 (0.984, 0.994)	<0.001
Alcohol abuse	–	–	0.75 (0.50, 1.10)	0.14
Smoking	0.76 (0.56, 1.02)	0.07	0.72 (0.53, 0.99)	0.04
Biologic therapy				
Adalimumab (Reference)				
Etanercept	0.30 (0.20, 0.44)	<0.001	0.30 (0.20, 0.46)	<0.001
Infliximab	1.33 (0.86, 2.07)	0.20	1.39 (0.85, 2.26)	0.19
Secukinumab	5.29 (3.69, 7.59)	<0.001	3.91 (2.56, 5.98)	<0.001
Ustekinumab	1.16 (0.91, 1.48)	0.23	0.95 (0.73, 1.23)	0.68
Baseline PASI	1.04 (1.02, 1.06)	<0.001	1.05 (1.03, 1.07)	<0.001
Charlson Comorbidity Index	0.72 (0.46, 1.11)	0.14	0.90 (0.59, 1.39)	0.65
Diabetes	0.76 (0.51, 1.15)	0.20	0.94 (0.63, 1.41)	0.77
Hypertension	1.08 (0.77, 1.49)	0.67	0.97 (0.69, 1.37)	0.87
Disease duration	–	–	0.989 (0.979, 0.999)	0.03
Local treatment	1.15 (0.93, 1.42)	0.21	1.24 (0.98, 1.56)	0.07
Female sex	0.95 (0.75, 1.20)	0.64	–	–
AMI and stroke	3.93 (1.32, 11.76)	0.01	–	–
Socioeconomic status in cohort				
Group 1 (Reference)				
Group 2	1.09 (0.76, 1.56)	0.64	1.19 (0.79, 1.80)	0.40
Group 3	1.14 (0.80, 1.62)	0.47	1.02 (0.68, 1.53)	0.92
Group 4	1.01 (0.71, 1.45)	0.94	1.01 (0.68, 1.51)	0.95
Group 5	1.28 (0.89, 1.84)	0.19	1.10 (0.73, 1.66)	0.66
<i>Additional analyses with categorized continuous variables</i>				
Age at start of biological treatment				
<30 years (Reference)				
30–45 years	0.77 (0.55, 1.07)	0.12	0.72 (0.49, 1.05)	0.09
45–60 years	0.53 (0.37, 0.75)	<0.001	0.51 (0.33, 0.78)	0.002
>60 years	0.58 (0.38, 0.88)	0.01	0.76 (0.46, 1.25)	0.28
Weight				
<70 kg (Reference)				
70–90 kg	0.96 (0.70, 1.31)	0.80	0.78 (0.56, 1.09)	0.14
90–110 kg	0.62 (0.44, 0.87)	0.006	0.57 (0.40, 0.80)	0.001
>110 kg	0.42 (0.29, 0.62)	<0.001	0.44 (0.29, 0.65)	<0.001
Disease duration				
<10 years (Reference)				
>10 years	–	–	0.749 (0.562, 0.998)	0.049

Table SIV. (contd)

	OR (95% CI)	p-value
PASI 90 – 12 months		
Age at start of biological treatment	1.00 (0.98, 1.01)	0.32
Weight	0.993 (0.987, 0.998)	0.009
Smoking	0.63 (0.44, 0.90)	0.01
Biologic therapy		
Adalimumab (Reference)		
Etanercept	0.39 (0.26, 0.59)	<0.001
Infliximab	1.14 (0.65, 1.98)	0.65
Secukinumab	2.36 (1.48, 3.78)	<0.001
Ustekinumab	0.95 (0.71, 1.28)	0.75
Baseline PASI	1.04 (1.02, 1.06)	<0.001
Charlson Comorbidity Index	0.79 (0.49, 1.29)	0.35
Diabetes	0.64 (0.40, 1.02)	0.06
Local treatment	1.42 (1.10, 1.84)	0.007
Socioeconomic status in cohort		
Group 1 (Reference)		
Group 2	1.47 (0.91, 2.35)	0.11
Group 3	1.26 (0.79, 2.00)	0.33
Group 4	1.06 (0.68, 1.67)	0.79
Group 5	1.19 (0.75, 1.90)	0.46
Additional analyses with categorized continuous variables		
Age at start of biological treatment		
<30 years (Reference)		
30–45 years	0.83 (0.54, 1.27)	0.38
45–60 years	0.65 (0.41, 1.02)	0.06
>60 years	0.88 (0.52, 1.49)	0.64
Weight		
<70 kg (Reference)		
70–90 kg	0.74 (0.51, 1.08)	0.12
90–110 kg	0.53 (0.36, 0.79)	0.002
>110 kg	0.55 (0.35, 0.86)	0.008

PASI: Psoriasis Area and Severity Index; 95% CI: 95% confidence interval; AMI: acute myocardial infarction.

Table SV. Average marginal effect of the independent variables in the model with the primary endpoint (Psoriasis Area and Severity Index; PASI ≤ 2.0 at 6 months)

Independent variables	Average marginal effect (95% CI)
Age at start of biological treatment	
<30 years (Reference)	
30–45 years	-0.020 (-0.091, 0.050)
45–60 years	-0.085 (-0.164, -0.005)
>60 years	-0.070 (-0.166, 0.026)
Weight	
<70 kg (Reference)	
70–90 kg	-0.044 (-0.104, 0.017)
90–110 kg	-0.082 (-0.146, -0.017)
>110 kg	-0.170 (-0.246, -0.095)
Alcohol abuse	-0.052 (-0.120, 0.017)
Smoking	-0.062 (-0.118, -0.006)
Biologic therapy	
Adalimumab (Reference)	
Etanercept	-0.228 (-0.301, -0.155)
Infliximab	0.032 (-0.062, 0.125)
Secukinumab	0.212 (0.153, 0.271)
Ustekinumab	0.024 (-0.029, 0.077)
Baseline PASI	-0.006 (-0.009, -0.003)
Charlson Comorbidity Index	-0.025 (-0.103, 0.053)
Diabetes	-0.039 (-0.112, 0.035)
Hypertension	0.006 (-0.055, 0.067)
Disease duration	
<10 years (Reference)	
>10 years	-0.014 (-0.069, 0.040)
Socioeconomic status in cohort	
Group 1 (Reference)	
Group 2	0.026 (-0.052, 0.105)
Group 3	0.024 (-0.054, 0.102)
Group 4	-0.018 (-0.096, 0.060)
Group 5	0.018 (-0.061, 0.097)

CI: confidence interval.

Table SVI. Interactions with biologic therapy in the model with the primary endpoint (Psoriasis Area and Severity Index; PASI ≤ 2.0 at 6 months)

Independent variables	Interaction of OR (95% CI)	p-value
Age at start of biological treatment		
Adalimumab (Reference)		
Etanercept	1.01 (0.99, 1.03)	0.52
Infliximab	1.03 (1.00, 1.07)	0.08
Secukinumab	0.97 (0.94, 1.00)	0.07
Ustekinumab	1.00 (0.98, 1.01)	0.63
Weight		
Adalimumab (Reference)		
Etanercept	0.99 (0.98, 1.01)	0.38
Infliximab	1.03 (1.01, 1.05)	0.02
Secukinumab	1.00 (0.98, 1.01)	0.60
Ustekinumab	1.00 (0.99, 1.01)	0.95
Alcohol abuse		
Adalimumab (Reference)		
Etanercept	0.87 (0.32, 2.32)	0.77
Infliximab	0.76 (0.16, 3.48)	0.72
Secukinumab	0.57 (0.14, 2.36)	0.44
Ustekinumab	1.15 (0.51, 2.60)	0.73
Smoking		
Adalimumab (Reference)		
Etanercept	0.65 (0.27, 1.55)	0.33
Infliximab	0.32 (0.09, 1.15)	0.08
Secukinumab	1.58 (0.42, 5.94)	0.49
Ustekinumab	1.76 (0.89, 3.47)	0.10
Baseline PASI		
Adalimumab (Reference)		
Etanercept	0.97 (0.92, 1.02)	0.23
Infliximab	1.02 (0.96, 1.08)	0.54
Secukinumab	0.98 (0.92, 1.03)	0.42
Ustekinumab	0.99 (0.96, 1.03)	0.65

OR: odds ratio.

Table SVIII Odds ratios of subanalysis with smoking data from the DERMbio registry

Independent variables	PASI ≤ 2.0 – 6 months (n=220)	
	OR (95% CI)	p-value
Age at start of biological treatment	0.99 (0.96, 1.01)	0.28
Weight	0.984 (0.970, 0.997)	0.02
Smoking		
Non-smoker (Reference)		
Previous smoker	0.72 (0.30, 1.71)	0.46
Smoker	1.05 (0.42, 2.62)	0.92
Biologic therapy		
Adalimumab (Reference)		
Etanercept	NA	NA
Infliximab	NA	NA
Secukinumab	3.48 (1.45, 8.34)	0.01
Ustekinumab	1.27 (0.48, 3.35)	0.63
Disease duration	0.98 (0.95, 1.01)	0.18
Local treatment	1.35 (0.65, 2.80)	0.41
<i>Additional analyses with categorized continuous variables</i>		
Age at start of biological treatment		
<30 years (Reference)		
30–45 years	0.87 (0.28, 2.69)	0.80
45–60 years	0.59 (0.19, 1.77)	0.34
>60 years	0.47 (0.12, 1.79)	0.27
Weight		
<70 kg (Reference)		
70–90 kg	0.59 (0.20, 1.79)	0.36
90–110 kg	0.53 (0.18, 1.58)	0.25
>110 kg	0.21 (0.06, 0.67)	0.01
Disease duration		
<10 years (Reference)		
>10 years	0.39 (0.12, 1.31)	0.13

PASI: Psoriasis Area and Severity Index; OR: odds ratio; CI: confidence interval.

Table SVII. Odds ratios of subanalyses with the primary endpoint (Psoriasis Area and Severity Index; PASI ≤ 2.0 at 6 months)

Independent variables	PASI < 2.0 – 6 months (primary model)	
	OR (95% CI)	p-value
Dose of biologic at 6 months ^a		
Under label	1.25 (0.63, 2.47)	0.53
On label (Reference)		
Over label	0.52 (0.34, 0.79)	0.002
Charlson Comorbidity Index without diabetes ^b	0.86 (0.57, 1.29)	0.46
Socioeconomic status in the Danish population ^c		
Group 1 (Reference)		
Group 2	1.31 (0.77, 2.24)	0.32
Group 3	0.99 (0.59, 1.68)	0.98
Group 4	0.88 (0.53, 1.47)	0.62
Group 5	1.00 (0.59, 1.69)	0.98

^aDose of biologic included in the primary model. ^bReplacing the variable "Charlson Comorbidity Index" in the primary model. ^cReplacing the variable "Socioeconomic status in the cohort" in the primary model.

OR: odds ratio; 95% CI: 95% confidence interval.

Table SIX. Calibration and discrimination of the multivariable logistic models

	Calibration: Hosmer-Lemeshow p-value	Discrimination: AUC (95% CI) of the ROC graph
PASI ≤ 2.0		
3 months	0.72	72.0 (69.8, 74.3)
6 months	0.18	67.8 (65.1, 70.4)
12 months	0.65	68.8 (65.7, 71.8)
PASI 75		
3 months	0.0503	71.7 (69.2, 74.2)
6 months	0.16	72.5 (69.7, 75.4)
12 months	0.27	72.7 (69.3, 76.1)
PASI 90		
3 months	0.13	72.1 (69.7, 74.5)
6 months	0.98	70.4 (67.7, 73.1)
12 months	0.45	67.5 (64.4, 70.7)

AUC: area under curve; 95% CI: 95% confidence interval; ROC: receiver operator characteristic; PASI: Psoriasis Area and Severity Index.