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**Table SI. Patient baseline characteristics**

<b>Factor</b>	<b>Level</b>	<b>Value</b>
Patients		405
Age, mean (SD)		48.5 (15.5) (n=405)
Male sex, n (%)		
	No	136 (33.6%)
	Yes	269 (66.4%)
Current smoker, n (%)		
	No	311 (76.8%)
	Yes	94 (23.2%)
Risk use of alcohol, n (%)		
	No	326 (80.5%)
	Yes	71 (17.5%)
		8 (2.0%)
Nail involvement, n (%)	No	168 (41.5%)
	Yes	237 (58.5%)
Psoriatic arthritis, n (%)		
	No	269 (66.4%)
	Yes	136 (33.6%)
BMI (kg/m <sup>2</sup> ), mean (SD)		29.0 (5.8) (n=405)
Highest observed PASI, median (IQR)		12.0 (7.4, 17.4) (n=405)

BMI: Body Mass Index; SD Standard Deviation; IQR: Interquartile Range; PASI: Psoriasis Area and Severity Index. All variables were measured as close to date of the first observation for the patient in the study at hand, except for nail involvement, psoriatic arthritis, and highest observed PASI which were measured throughout follow-up.

**Table SII. Observations per treatment and class**

<b>Treatment</b>	<b>TNFis</b>	<b>IL-12/23is</b>	<b>IL-17is</b>	<b>IL-23is</b>	<b>PDE-4is</b>	<b>Total</b>
Adalimumab	692	0	0	0	0	692
Apremilast	0	0	0	0	62	62
Brodalumab	0	0	23	0	0	23
Certolizumb Pegol	53	0	0	0	0	53
Etanercept	321	0	0	0	0	321
Golimumab	12	0	0	0	0	12
Guselkumab	0	0	0	117	0	117
Infliximab	94	0	0	0	0	94
Ixekizumab	0	0	209	0	0	209
Risankizumab	0	0	0	54	0	54
Secukinumab	0	0	308	0	0	308
Tildrakizumab	0	0	0	3	0	3
Ustekinumab	0	661	0	0	0	661
<b>Total</b>	<b>1,172</b>	<b>661</b>	<b>540</b>	<b>174</b>	<b>62</b>	<b>2,609</b>

Abbreviations: TNF: Tumor Necrosis Factor 1; IL: Interleukin; i inhibitor.

**Table SIII. Coefficients from mixed-effects linear regression estimating total and direct controlled effects of mode of action on total MADRS-s score**

Variable	Model for total controlled effect		Model for controlled direct effect	
	Coefficient	P-value	Coefficient	P-value
Mode of action				
TNFi (reference)				
IL-12/23is	-0.933	0.028	-0.057	0.890
IL-17is	-1.508	0.001	-1.044	0.016
IL-23is	-1.165	0.025	-1.269	0.014
PDE-4is	0.126	0.883	0.094	0.915
Year of measurement				
2017	-0.104	0.748	-0.143	0.648
2018	0.292	0.405	0.344	0.308
2019	-0.493	0.159	-0.200	0.552
2020	0.007	0.986	0.064	0.855
2021	0.140	0.705	0.142	0.690
2022	0.486	0.227	0.545	0.160
Male (female reference)	-2.926	0.003	-2.077	0.003
Age	-0.030	0.102	-0.034	0.102
PASI			-0.086	0.022
Itch-VAS			0.016	0.802
PASE			0.124	0.000
PsA			0.993	0.155
Highest observed DLQI			0.184	0.000
DLQI			0.358	0.000

Abbreviations: TNF: Tumor Necrosis Factor 1; IL: Interleukin; i inhibitor. PASI: Psoriasis Area and Severity Index; DLQI: Dermatology Life Quality Index; PASE: Psoriatic Arthritis Screening and Evaluation tool; VAS: Visual Analogue Scale.

**Table SIV. Odds ratios from multilevel mixed-effects ordered logistic regression on the anxiety/depression dimension of the EQ-5D**

<b>Variable</b>	<b>Odds ratio</b>	<b>Standard error</b>	<b>p-value</b>	<b>95% Confidence intervals</b>	
TNFi (reference)					
IL-12/23is	0.83	0.23	0.50	0.48	1.43
IL-17is	0.66	0.18	0.12	0.39	1.11
IL-23is	0.49	0.17	0.04	0.25	0.97
PDE-4is	0.64	0.36	0.42	0.21	1.92
Male (female reference)	0.20	0.07	0.00	0.10	0.39
Age	0.96	0.01	0.00	0.94	0.98
Year of measurement					
2017	1.08	0.25	0.74	0.69	1.69
2018	1.35	0.33	0.22	0.84	2.18
2019	1.01	0.25	0.96	0.62	1.64
2020	0.98	0.25	0.95	0.60	1.62
2021	1.05	0.26	0.85	0.64	1.71
2022	0.82	0.22	0.46	0.48	1.39
PASI	1.01	0.02	0.82	0.96	1.05
Itch-VAS	0.95	0.04	0.24	0.88	1.03
PASE	1.07	0.01	0.00	1.06	1.09
DLQI	1.20	0.03	0.00	1.15	1.26
Highest observed DLQI	1.05	0.02	0.02	1.01	1.10

Abbreviations: TNF: Tumor Necrosis Factor 1; IL: Interleukin; i inhibitor. PASI: Psoriasis Area and Severity Index; DLQI: Dermatology Life Quality Index; PASE: Psoriatic Arthritis Screening and Evaluation tool; VAS: Visual Analogue Scale.