

Supplementary Table S1. Descriptive analyses showing patient reported EQ-5D-5L utility score, HAQ-DI, WPAI and PsAID12 scores according to physician-reported patient flare status

	Overall (n=2,238)	Currently in flare* (n=168)	Not currently flaring, but flared in last 12 months* (n=492)	Not flared ever/in last 12 months* (n=1,578)	P-value
EQ-5D-5L utility score, n	934	69	194	671	
Mean (SD)	0.81 (0.18)	0.59 (0.23)	0.78 (0.18)	0.84 (0.15)	<0.001
HAQ-DI, n,	n=92	n=67	n=187	n=648	<0.001
mean (SD)	0.5 (0.6)	1.1 (0.6)	0.6 (0.6)	0.5 (0.5)	
WPAI Work time missed, n	n=507	n=35	n=102	n=370	
Work time missed, mean percentage (SD)	5.1 (17.3)	13.6 (24.1)	3.8 (14.0)	4.7 (17.2)	0.009
Impairment while working, n	n=560	n=36	n=112	n=412	
Impairment while working, mean percentage (SD)	19.0 (17.2)	45.6 (23.7)	23.6 (17.6)	15.4 (13.8)	<0.001
Overall work impairment, n	n=496	n=34	n=101	n=361	
Overall work impairment, mean percentage (SD)	22.0 (19.3)	48.3 (25.6)	25.7 (19.1)	18.5 (16.3)	<0.001
Activity impairment, n	n=925	n=70	n=199	n=656	
Activity impairment, mean percentage (SD)	26.2 (22.4)	53.4 (25.0)	32.1 (22.4)	21.5 (19.4)	<0.001
PsAID12, n (SD)	n=923	n=67	n=195	n=662	
Overall score (0-10)	2.5 (2.0)	5.0 (2.2)	3.2(2.0)	2.0 (1.7)	<0.001
Pain (0-10)	2.7 (2.3)	5.6 (2.4)	3.5 (2.2)	2.2 (2.10)	<0.001
Fatigue (0-10)	2.9 (2.5)	5.7 (2.7)	3.8 (2.5)	2.3 (2.2)	<0.001
Skin problem (0-10)	2.5 (2.3)	4.2 (3.1)	3.0 (2.1)	2.2 (2.1)	<0.001
Work/leisure activities (0-10)	2.4 (2.3)	5.1 (2.7)	3.2 (2.3)	2.0 (2.0)	<0.001
Functional capacity (0-10)	2.5 (2.3)	5.2 (2.5)	3.2 (2.4)	1.9 (2.0)	<0.001
Discomfort (0-10)	2.7 (2.5)	5.7 (2.7)	3.7 (2.6)	2.1 (2.1)	<0.001
Sleep disturbance (0-10)	2.4 (2.5)	5.2 (2.8)	3.3 (2.6)	1.9 (2.2)	<0.001
Coping (0-10)	2.2 (2.3)	4.4 (2.7)	2.9 (2.5)	1.8 (2.0)	<0.001
Anxiety, fear and uncertainty (0-10)	2.3 (2.5)	4.6 (2.8)	3.0 (2.8)	1.8 (2.1)	<0.001
Embarrassment and/or shame (0-10)	2.1 (2.5)	4.3 (2.9)	2.8 (2.7)	1.7 (2.2)	<0.001
Social participation (0-10)	2.0 (2.4)	2.2 (3.0)	2.8 (2.5)	1.6 (2.0)	<0.001
Depression (0-10)	1.9 (2.4)	3.7 (3.1)	2.6 (2.7)	1.5 (2.1)	<0.001
*Flare status reported by physician Values in bold are significant at p<0.05 EQ-5D-5L=EuroQol 5-dimension 5-level questionnaire; HAQ-DI=Health Assessment Questionnaire-Disease Index; PsAID12=Psoriatic Arthritis Impact of Disease 12-item questionnaire; SD=standard deviation; WPAI=Work Productivity and Activity Impairment questionnaire Patients were compared, using parametric or non-parametric tests as appropriate (ANOVA for numeric variables, Kruskal-Wallis test for ordinal variables, Chi2 test for categorical variables.					

Supplementary Table S2. Descriptive analyses showing demographic and clinical characteristics by patient-reported flare status ("Do you ever experience 'flares' (temporary worsening) of your PsA?")

	Overall (n=947)	"Yes, I am currently experiencing a flare" (n=95)	"Yes, but I am not currently experiencing a flare" (n=376)	"No, I do not flare" (n=476)	P-value
Age, years; mean (SD)	47.8 (13.5)	52.0 (12.7)	48.9 (13.0)	46.1 (13.8)	<0.001
Age group (%)	n=947	n=95	n=376	n=476	
18-29	8.0	2.1	7.7	9.5	<0.001
30-39	22.3	15.8	18.6	26.5	
40-49	24.9	25.3	23.7	25.8	
50-59	23.7	25.3	28.2	19.7	
60-69	15.3	24.2	16.8	12.4	
70-79	4.8	6.3	3.7	5.3	
80+	1.1	1.1	1.3	0.8	
Male (%)	53.9	45.3	54.0	55.5	0.190
White/Caucasian (%)	92.4	92.6	92.8	92.0	0.483
BMI; mean (SD)	26.7 (4.8)	27.7 (4.7)	26.9 (5.3)	26.3 (4.2)	0.019
Current smoker (%)	19.5	17.5	20.3	19.3	0.246
Employment, (%)	n=923	n=91	n=366	n=466	
Full-time	59.6	40.7	59.6	63.3	<0.001
Part-time	8.1	11.0	7.1	8.4	
Long-term sick leave	2.4	5.5	3.3	3.3	
Homemaker	8.1	14.3	6.3	6.3	
Student	2.4	0.0	2.2	2.2	
Unemployed	5.0	11.0	5.5	5.5	
Retired	14.4	17.6	16.1	16.1	
Time since onset of symptoms (months)	n=569	n=58	n=251	n=260	
Mean (SD)	83.3 (94.4)	126.8 (109.8)	99.5 (101.4)	58.1 (75.2)	<0.001
Time since diagnosis (months)	n=770	n=75	n=307	n=388	
Mean (SD)	62.3 (77.9)	90.3 (103.8)	76.2 (85.8)	46.0 (60.0)	<0.001
Current disease severity (%)	n=947	n=95	n=376	n=476	
Mild	72.4	40.0	68.1	82.4	<0.001
Moderate	25.1	50.5	29.8	16.4	
Severe	2.4	9.5	2.1	1.3	

\*Flare status reported by patient. BMI=Body Mass Index (kg/m<sup>2</sup>); SD=standard deviation

Values in bold are significant at p<0.05

Patients were compared, using parametric or non-parametric tests as appropriate (ANOVA for numeric variables, Kruskal-Wallis test for ordinal variables, Chi<sup>2</sup> test for categorical variables).

Supplementary Table S3. Descriptive analyses showing PsA symptoms by patient-reported flare status (“Do you ever experience ‘flares’ (temporary worsening) of your PsA?”)

	Overall (n=947)	“Yes, I am currently experiencing a flare” (n=95)	“Yes, but I am not currently experiencing a flare” (n=376)	“No, I do not flare” (n=476)	P-value
Current symptoms (%)	n=947	n=95	n=376	n=476	
Tender joints	53.0	80.0	53.7	47.1	<0.001
Swollen joints	28.7	54.7	27.4	24.6	<0.001
Psoriatic skin lesions	52.7	61.1	55.9	48.5	0.024
Genital psoriasis	2.9	6.3	2.1	2.7	0.088
Palmoplantar pustulosis	2.2	5.3	2.7	1.3	0.041
Palms/soles	8.9	12.6	9.8	7.4	0.178
Nail deformation	19.9	25.3	26.1	13.9	<0.001
Dactylitis	7.0	15.8	8.0	4.4	<0.001
Enthesitis	6.0	20.0	7.4	2.1	<0.001
Tendonitis	3.5	9.5	2.9	2.7	0.004
IBP	12.5	16.8	17.0	8.0	<0.001
Sacroiliitis	3.1	5.3	4.3	1.7	0.041
Uveitis/iritis	1.0	0.0	1.3	0.8	0.461
IBD	1.7	3.2	2.7	0.6	0.037
% BSA, n	n=728	n=73	n=305	n=350	
% BSA affected, mean (SD)	6.2 (8.4)	8.1 (11.0)	6.6 (8.7)	5.4 (7.3)	0.022
66 Swollen joint count, n	n=233	n=32	n=106	n=95	
66 Swollen joint count, mean (SD)	3.0 (5.9)	4.1 (4.4)	2.7 (4.2)	3.0 (7.8)	0.511
68 Tender joint count, n	n=223	n=35	n=101	n=87	
68 Tender joint count, mean (SD)	4.0 (5.4)	6.5 (4.9)	4.3 (5.9)	2.7 (4.7)	0.002
*Flare status reported by patient. BSA=body surface area; IBD=inflammatory bowel disease; IBP=inflammatory back pain; SD=standard deviation Patients were compared, using parametric or non-parametric tests as appropriate (ANOVA for numeric variables, Kruskal-Wallis test for ordinal variables, Chi <sup>2</sup> test for categorical variables. Values in bold are significant at p<0.05					

Supplementary Table S4. Descriptive analyses showing patient current treatment for PsA by patient-reported flare status ("Do you ever experience 'flares' (temporary worsening) of your PsA?")

	Overall (n=947)	"Yes, I am currently experiencing a flare" (n=95)	"Yes, but I am not currently experiencing a flare" (n=376)	"No, I do not flare" (n=476)	P-value
<b>Current treatment (%)</b>	<b>n=947</b>	<b>n=95</b>	<b>n=376</b>	<b>n=476</b>	
NSAID	24.6	34.7	25.8	21.6	0.020
Non-opioid analgesic	5.9	12.6	8.8	2.3	<0.001
Opioid analgesic	2.7	7.4	2.7	1.9	0.012
Oral steroid	5.0	12.6	5.1	3.4	<0.001
Injected steroid	2.2	3.2	2.4	1.9	0.713
Topical steroid	16.9	18.9	18.9	14.9	0.263
Topical non-steroid	8.7	7.4	8.8	8.8	0.895
Phototherapy	3.5	2.1	6.1	1.7	0.002
Oral retinoid	1.0	1.1	1.1	0.8	0.940
Fumarate	0.6	0.0	0.0	1.3	0.050
Conventional synthetic DMARD	38.9	54.7	42.8	32.6	<0.001
Targeted synthetic DMARD	13.5	16.8	12.2	13.9	0.478
Biologic DMARD (original or biosimilar)	48.6	50.5	54.8	43.3	0.004
<b>Time since first advanced therapy (months)</b>	<b>n=531</b>	<b>n=62</b>	<b>n=229</b>	<b>n=240</b>	
Mean (SD)	34.5 (41.2)	40.9 (48.0)	38.4 (45.0)	29.0 (34.5)	0.020
<b>Current treatment regimen (%)</b>	<b>n=936</b>	<b>n=95</b>	<b>n=375</b>	<b>n=466</b>	
Monotherapy	51.7	37.9	41.9	62.4	<0.001
Combination	48.3	62.1	58.1	37.6	
*Flare status reported by patient. DMARD=disease modifying antirheumatic drug; NSAID=non-steroidal anti-inflammatory drug; SD=standard deviation Patients were compared, using parametric or non-parametric tests as appropriate (ANOVA for numeric variables, Kruskal-Wallis test for ordinal variables, Chi <sup>2</sup> test for categorical variables. Values in bold are significant at p<0.05					

Supplementary Table S5: Adjusted logistic regression analyses showing the impact of patient-reported flare status on PRO scores as reported by patients.

	Current flare status	Change in predicted PRO values	P-value (vs. reference group)
EQ-5D-5L utility (n=590)	"No, I do not flare"	Reference group	
	"Yes, I am currently experiencing a flare"	-0.21	<0.001
	"Yes, but I am not currently experiencing a flare"	-0.07	<0.001
EQ-5D-VAS (n=598)	"No, I do not flare"	Reference group	
	"Yes, I am currently experiencing a flare"	-21.4	<0.001
	"Yes, but I am not currently experiencing a flare"	-4.3	<0.001
WPAI % overall work impairment (n=331)	"No, I do not flare"	Reference group	
	"Yes, I am currently experiencing a flare"	+26.6	<0.001
	"Yes, but I am not currently experiencing a flare"	+0.9	0.635
HAQ-DI (n=573)	"No, I do not flare"	Reference group	
	"Yes, I am currently experiencing a flare"	+0.5	<0.001
	"Yes, but I am not currently experiencing a flare"	+0.2	<0.001
PsAID12 (n=585)	"No, I do not flare"	Reference group	
	"Yes, I am currently experiencing a flare"	+3.4	<0.001
	"Yes, but I am not currently experiencing a flare"	+0.6	<0.001
<p>PRO key for worse outcome (range): EQ-5D-5L utility (0-1.0)=lower; EQ-5D-VAS (0-100)=lower; WPAI (0-100)=higher; HAQ-DI (0-3)=higher; PsAID12 (0-10)=higher</p> <p>EQ-5D-5L=EuroQol 5-dimension 5-level questionnaire; HAQ-DI=Health Assessment Questionnaire-Disease Index; PRO=patient-reported outcome; PsAID12=Psoriatic Arthritis Impact of Disease 12-item questionnaire; VAS=Visual Analogue Scale; WPAI=Work Productivity and Activity Impairment questionnaire</p> <p>Values in bold are significant at p&lt;0.05</p>			

Supplementary Table S6. Descriptive analyses showing EQ-5D-5L utility score HAQ-DI, WPAI and PsAID12 scores by patient-reported flare status

	Overall (n=947)	"Yes, I am currently experiencing a flare" (n=95)	"Yes, but I am not currently experiencing a flare" (n=376)	"No, I do not flare" (n=476)	P-value
EQ-5D-5L utility score, n	930	92	369	469	
Mean (SD)	0.81 (0.18)	0.59 (0.23)	0.79 (0.17)	0.87 (0.12)	<0.001
HAQ-DI, n,	n=901	n=86	n=353	n=462	
mean (SD)	0.5 (0.6)	1.1 (0.7)	0.6 (0.6)	0.3 (0.4)	<0.001
WPAI Work time missed, n	n=506	n=38	n=209	n=259	
Work time missed, mean percentage (SD)	5.1 (17.3)	14.6 (24.6)	3.4 (13.0)	5.1 (18.7)	0.001
WPAI Impairment while working, n	n=560	n=42	n=223	n=295	
Impairment while working, mean percentage (SD)	18.9 (17.0)	41.9 (24.0)	19.5 (16.2)	15.1 (13.4)	<0.001
WPAI Overall work impairment, n	n=495	n=37	n=207	n=251	
Overall work impairment, mean percentage (SD)	22.0 (19.1)	47.2 (25.4)	21.6 (17.7)	18.5 (16.1)	<0.001
WPAI Activity impairment, n	n=921	n=89	n=371	n=461	
Activity impairment, mean percentage (SD)	25.8 (22.1)	54.2 (23.2)	27.7 (21.3)	18.8 (17.3)	<0.001
PsAID12, n (SD)	n=907	n=82	n=357	n=468	
Overall score (0-10)	2.4 (2.0)	5.4 (2.0)	2.7 (1.9)	1.7 (1.5)	<0.001
Pain (0-10)	2.7 (2.2)	6.0 (2.2)	2.9 (2.1)	2.0 (1.7)	<0.001
Fatigue (0-10)	2.8 (2.5)	6.3 (2.5)	3.2 (2.4)	1.9 (1.8)	<0.001
Skin problem (0-10)	2.5 (2.3)	4.8 (3.2)	2.6 (2.0)	2.0 (1.9)	<0.001
Work/leisure activities (0-10)	2.4 (2.3)	5.4 (2.5)	2.6 (2.2)	1.7 (1.7)	<0.001
Functional capacity (0-10)	2.4 (2.3)	5.5 (2.6)	2.7 (2.2)	1.6 (1.7)	<0.001
Discomfort (0-10)	2.7 (2.5)	6.4 (2.4)	2.9 (2.3)	1.8 (1.8)	<0.001
Sleep disturbance (0-10)	2.4 (2.5)	5.6 (2.7)	2.6 (2.4)	1.6 (1.9)	<0.001
Coping (0-10)	2.2 (2.3)	4.9 (2.6)	2.4 (2.2)	1.6 (1.8)	<0.001
Anxiety, fear and uncertainty (0-10)	2.2 (2.4)	4.9 (3.1)	2.4 (2.4)	1.6 (2.0)	<0.001
Embarrassment and/or shame (0-10)	2.1 (2.4)	4.5 (2.9)	2.3 (2.5)	1.5 (2.0)	<0.001
Social participation (0-10)	2.0 (2.3)	4.6 (3.0)	2.3 (2.3)	1.3 (1.8)	<0.001
Depression (0-10)	1.8 (2.4)	4.1 (3.3)	2.0 (2.4)	1.3 (1.8)	<0.001
<p>*Flare status reported by patient  HAQ-DI=Health Assessment Questionnaire-Disease Index; PsAID12=Psoriatic Arthritis Impact of Disease 12-item questionnaire; SD=standard deviation;  WPAI=Work Productivity and Activity Impairment questionnaire  Patients were compared, using parametric or non-parametric tests as appropriate (ANOVA for numeric variables, Kruskal-Wallis test for ordinal variables,  Chi2 test for categorical variables.  Values in bold are significant at p&lt;0.05</p>					