

Supplementary Table 1. Hypothesized correlations of physical function PROMs with other measures.

	HAQ-DI	SF12 PCS	PsAID-FC
HAQ-DI	-	Strong (-)	Strong (+)
PCS12	Strong (-)	-	Strong (-)
PsAID-FC	Strong (+)	Strong (-)	-
Patient joint global	Moderate to strong (+)	Moderate to strong (-)	Moderate to strong (+)
Pain	Moderate (+)	Moderate (-)	Moderate (+)
Patient skin global	Very weak (+)	Very weak (-)	Very weak (+)
Tender joint count	Moderate (+)	Moderate (-)	Moderate (+)
Swollen joint count	Weak to moderate (+)	Weak to moderate (-)	Weak to moderate (+)
DAPSA	Moderate (+)	Moderate (-)	Moderate (+)
PsAID12 total	Moderate to strong (+)	Moderate to strong (-)	Strong (+)

Spearman's rho <0.3, 0.3-0.5, 0.5-0.7, and >0.7 were considered very weak, weak, moderate and strong. HAQ-DI: Health Assessment Questionnaire-Disability index; PCS12: Physical Functioning of Medical Outcome Short Form 12; PsAID-FC: Psoriatic Arthritic Impact of Disease Instrument (PsAID12)-Functional Capacity; PGA: patient global assessment; DAPSA: Disease Activity Index for Psoriatic Arthritis.

Supplementary Table 2. Known group validity of PROMs for physical function in PsA

	Status	Patient defined REM		Patient defined LDA		PASS	
	Achievement	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)
HAQ-DI	no	321	0.73 (0.69)	163	0.93 (0.75)	131	1.14 (0.06)
	yes	86	0.27 (0.45) **	245	0.44 (0.53) **	280	0.40 (0.52) **
PCS12	no	321	39.9 (10.8)	163	37.1 (11.4)	131	33.1 (9.8)
	yes	86	47.3 (9.6) *	245	44.2 (9.7) *	280	45.3 (9.2) *
PsAID-FC	no	321	4.06 (2.96)	163	5.10 (3.1)	131	6.10 (2.62)
	yes	86	1.52 (2.20) **	245	2.52 (2.43) **	280	2.34 (2.33) **

*p <0.05; **p < 0.001; N: sample sizes; REM: remission; LDA: low disease activity

Supplementary Table 3. Spearman's Rho correlations between change scores of physical function PROMs and change scores of other measures (n=350).

	Rho		
	Change of HAQ-DI	Change of PCS12	Change of PsAID-FC
Change of HAQ-DI	-	-0.706**	0.684**
Change of PCS12	-0.706**	-	-0.747**
Change of PsAID-FC	0.684**	-0.747**	-
Change of PGA -- arthritis	0.553**	-0.626**	0.718**
Change of pain	0.545**	-0.584**	0.718**
Change of PGA -- skin	0.293**	-0.282**	0.399**
Change of swollen joint count	0.339**	-0.304**	0.345**
Change of tender joint count	0.371**	-0.384**	0.446**
Change of DAPSA	0.565**	-0.571**	0.676**
Change of PsAID-12	0.689**	-0.711**	0.895**

**p<0.001; Rho = Spearman's correlation coefficient; HAQ-DI: Health Assessment Questionnaire-Disability index; PCS12: Physical Functioning of Medical Outcome Short Form 12; PsAID-FC: Psoriatic Arthritic Impact of Disease Instrument (PsAID12)-Functional Capacity; PGA - joint: patient global assessment of joint condition; PGA – skin: patient global assessment of skin condition; DAPSA: Disease Activity Index for Psoriatic Arthritis; PsAID-12: 12-item Psoriatic Arthritic Impact of Disease Instrument.

Supplementary Table 4. Thresholds of meaning for each physical function PROMs according to composites

		Remission		Low disease activity	
		VLDA (n=54)	DAPSA REM (n=83)	MDA (n=165)	DAPSA LDA(n=230)
HAQ-DI	Median	0.00	0.00	0.00	0.13
	75 th centile of scores ¶	0.00	0.13	0.25	0.63
	Youden's J index cut-off from ROC ¥	0.13	0.13	0.5	0.5
	sensitivity/specificity/AUC	0.91/ 0.69/ 0.85	0.77/ 0.72/ 0.78	0.94/ 0.72/ 0.88	0.74/ 0.71/ 0.78
PCS12	Median	54.8	53.4	51.0	48.7
	75 th centile of scores ¶	51.4	48.3	46.5	40.0
	Youden's J index cut-off from ROC ¥	49.5	49.8	46.0	39.8
	sensitivity/specificity/AUC	0.91/ 0.79/ 0.90	0.74/ 0.81/ 0.81	0.76/ 0.84/ 0.86	0.77/ 0.70/ 0.79
PsAID-FC	Median	0.00	0.00	1.00	1.00
	75 th centile of scores ¶	1.00	1.00	2.00	3.00
	Youden's J index cut-off from ROC ¥	1.00	2.00	2.00	3.00
	sensitivity/specificity/AUC	0.87/ 0.74/ 0.88	0.90/ 0.66/ 0.86	0.84/ 0.81/ 0.89	0.77/ 0.76/ 0.84

¶: the 75th centile of scores in the group as defined by the external anchor; ¥: The correspondent cut-off from the Youden's J index from the Receiver Operator Curve.

MDA: minimal disease activity; DAPSA: Disease Activity Index for Psoriatic Arthritis; VLDA: very low disease activity; HAQ-DI: Health Assessment Questionnaire-Disability index; PCS12: Physical Functioning of Medical Outcome Short Form 12; PsAID-FC: Psoriatic Arthritic Impact of Disease Instrument (PsAID12)-Functional Capacity; AUC: area under curve of the Receiver Operator Curve.