## Supplemental Table 1: Differences male and female patients

	Total (n=330)	Female n=147 (44,5%)	Male n=183 (55,5%)	P value
Age, years, mean (SD)	53.3 (14.0)	53.3 (14.7)	53.3 (13.5)	0.968
BMI, kg/m <sup>2</sup> , mean (SD)	27.3 (6.15)	27.0 (6.41)	27.5 (5.94)	0.515
Smokers, n (%) (n=311)	69 (22.2%)	33 (23.1%)	36 (21.4%)	0.727
PsA /axSpA, n (%)	168 (50.9%) /	79 (53.7%) /	89 (48.6%) /	0.356
	162 (49.1%)	68 (46.3%)	94 (51.4%)	
HLA B27, n (%) (n=244)	128 (52.5%)	49 (45.4%)	79 (58.1%)	0.048
Disease domains: Axial involvement, n (%) Peripheral arthritis, n (%) Enthesitis, n (%) Dactylitis, n (%)	220 (66.9%) 273 (83.2%) 134 (40.7%) 84 (25.5%)	97 (66.0%) 127 (87.6%) 68 (46.3%) 38 (25.9%)	123 (67.6%) 146 (79.8%) 66 (36.3%) 46 (25.1%)	0.760 0.060 0.067 0.882
CRP, mg/l, mean (SD)	6.10 (11.7)	5.92 (6.04)	6.24 (14.8)	0.806
Disease duration, years, mean (SD)	11.3 (9.29)	10.6 (8.60)	11.9 (9.78)	0.209
Functional capacity (FFbH), % (n=325)	79.1 %	75.3 %	82.2%	0.003
Significant functional impairment (FFbH <60%), n (%) (n=325)	55 (17.0%)	29 (19.9%)	26 (14.6%)	0.210
Therapy: csDMARD, n (%) bDMARD, n (%) Anti-TNF, n (%) Anti-IL17, n (%) Glucocorticoids, n (%) NSAID monotherapy, n (%) No current therapy, n (%)	114 (34.8%) 224 (68.1%) 144 (43.8%) 66 (20.1%) 29 (8.9%) 35 (10.6%) 26 (7.9%)	55 (37.7%) 95 (64.6%) 56 (38.1%) 31 (21.1%) 15 (10.3%) 17 (11.6%) 13 (8.8%)	59 (32.4%) 129 (70.9%) 88 (48.4%) 35 (19.2%) 14 (7.8%) 18 (9.8%) 13 (7.1%)	0.321 0.226 0.062 0.676 0.431 0.612 0.560
Abnormal sleep behaviour, n (%) (n=313)	146 (46.6%) 154 (49.6%)	80 (55.9%)	66 (38.8%)	<0.001 0.014
Inability to sleep through the night, n (%) Waking too early, n (%)	99 (32.1%)	81 (56.6%) 47 (33.1%)	73 (43.7%) 52 (31.3%)	0.465
Need for sleeping pills, n (%)	20 (6.5%)	13 (9.2%)	7 (4.1%)	0.403 0.047
Unrefreshing sleep, n (%)	36 (11.6%)	25 (17.6%)	11 (6.5%)	<0.047
WHO-QOL BREF: (n=327) Physical HRQOL, D1, mean (SD) Mental HRQOL, D2, mean (SD) Social QOL, D3, mean (SD) Environmental QOL, D4, mean (SD)	60.5 (19.5) 67.7 (17.3) 68.0 (19.7) 77.4 (13.4)	57.6 (19.6) 64.2 (17.9) 67.4 (19.3) 76.7 (13.7)	62.9 (19.1) 70.5 (16.3) 68.5 (20.0) 78.0 (13.1)	0.015 <0.001 0.623 0.377
Depressive Symptoms: (n=307) BDI-II score, mean (SD) No depression, n (%) Minimal or mild depression, n (%) Moderate to severe depression, n (%)	11.2 (9.4) 142 (46.0) 115 (37.5) 50 (16.3)	12.7 (9.92) 56 (40.0) 55 (39.3) 29 (20.7)	10.0 (8.78) 86 (51.5) 60 (35.9) 21 (12.6)	0.015 } 0.019

The number (n) for individual items is given in the left column for parameters, for which data from individual patients were missing. P values refer to comparison of female and male patients. Abbreviations: SD standard deviation, n number, BMI body mass index, csDMARD conventional synthetic disease modifying antirheumatic drug, bDMARD biological DMARD, NSAID non-steroidal anti-inflammatory drug.

## Supplemental Table 2: Multiple linear regression analysis of factors associated with RIS score.

SpA (whole cohort)	Predictors	β	95% Cl for β	В	SE	р		
	Depressive symptoms (BDI-II)	0.43	0.32 – 0.54	0.30	0.04	<0.001		
	Functional capacity (FFbH)	-0.21	-0.33– -0.09	-0.07	0.02	<0.001		
	Female sex	0.27	0.07 - 0.47	1.76	0.66	0.008		
	Axial involvement	0.27	0.06 - 0.48	1.76	0.70	0.012		
5 2	$R^2 0.378$ , adj. $R^2 0.355$ , $F(10, 277) = 16.72$ , $p < 0.001^{-1}$							

<sup>1</sup>Linear regression adjusted for age, disease duration, BMI, smoking status, as well as comorbidities (chronic lung disease, chronic kidney disease). Abbreviations:  $\beta$  standardized estimate, CI confidence interval, B estimate SE standard error.