

Supplementary table 3. First Sensitivity analysis: Clinical characteristics of patients who discontinued on achieving remission (data at 6 months after discontinuation)

Variable		No disc. due to remission	bDMARD-free 6 months	All	p Rem
N		3286	53	3366	
Age (years)		51.8 (13.0)	50.4 (16.5)	51.8 (13.1)	0.425
Female sex		2090 (63.6)	27 (50.9)	2133 (63.4)	0.058
Age at diagnosis		43.2 (13.6)	44.1 (15.3)	43.2 (13.7)	0.663
Disease duration		8.6 (8.4)	6.3 (4.1)	8.6 (8.4)	0.051
Smoking	Current	2165 (65.9)	47 (88.7)	2233 (66.3)	0.006
	Ex-smoker	695 (21.2)	4 (7.5)	704 (20.9)	
	Never	329 (10.0)	1 (1.9)	331 (9.8)	
Charlson Comorbidity Index		2.1 (1.4)	2.0 (1.8)	2.1 (1.4)	0.677
Previous bDMARD	First-line	1908 (58.1)	30 (56.6)	1955 (58.1)	0.831
	Second-line	1378 (41.9)	23 (43.4)	1411 (41.9)	
Corticosteroids		1442 (63.9)	21 (55.3)	1470 (63.5)	0.271
Concomitant csDMARD	MTX	1389 (64.2)	18 (48.6)	1414 (63.7)	0.051
	LFN	628 (34.2)	11 (33.3)	639 (33.9)	0.913
	SSZ	169 (10.6)	4 (12.1)	174 (10.6)	0.778
Mean time until previous bDMARD discontinued		24.3 (33.9)	48.3 (39.5)	24.9 (34.3)	<0.001
Treatment at discontinuation	TNF-i	2503 (76.2)	45 (84.9)	2575 (76.5)	0.779
	IL6-i	194 (5.9)	3 (5.7)	197 (5.9)	
	CD20-i	187 (5.7)	2 (3.8)	189 (5.6)	
	JAK-i	70 (2.1)	0 (0.0)	70 (2.1)	
	IL1-i	5 (0.2)	0 (0.0)	5 (0.1)	
	IL17A-i	109 (3.3)	0 (0.0)	109 (3.2)	
	IL12/23-i	28 (0.9)	0 (0.0)	28 (0.8)	
	PDE4-i	57 (1.7)	0 (0.0)	57 (1.7)	
Abatacept	131 (4.0)	3 (5.7)	134 (4.0)		
RF		819 (24.9)	7 (13.2)	828 (24.6)	0.209
ACPA		755 (37.3)	3 (12.5)	758 (36.8)	0.029
HLA-B27		653 (19.9)	10 (18.9)	671 (19.9)	0.163
Moderate-high activity*		448 (17.8)	3 (7.7)	457 (17.8)	0.100

Footnote to supplementary table 2: Disc: Discontinuation. P Rem: probability of remission/no remission at 6 months; Rem: remission; i: inhibitor; RA: rheumatoid arthritis; AS: ankylosing spondylitis; PsA: psoriatic arthritis; bDMARD: biologic disease-modifying antirheumatic drug; csDMARD: conventional synthetic DMARD; tsDMARD: targeted

synthetic DMARD; MTX: methotrexate, LFN: leflunomide; SSZ: sulfasalazine; i: inhibitor; RF: rheumatoid factor; ACPA: anti-citrullinated peptide antibody.

*Moderate-high disease activity was defined as DAS28 ≥ 3.2 or BASDAI ≥ 4 , depending on the disease.