

Supplementary table 4. First Sensitivity analysis: Characteristics detailed by disease in patients who discontinued therapy on achieving remission (data at 6 months after discontinuation)

		RA				AS				PsA			
Variable		No disc. due to rem.	b-DMARD free 6 m	All	P	No disc. due to rem.	b-DMA RD free 6 m	All	P	No disc. due to rem.	b-DMARD free 6 m	All	P
N		1777	22	1807		718	12	736		791	19	823	
Age (years)		54.8 (13.0)	59.8 (13.1)	54.8 (13.0)	0.072	47.2 (12.7)	33.7 (13.5)	46.9 (12.9)	<0.001	49.4 (11.7)	50.0 (13.5)	49.4 (11.7)	0.836
Female sex		1412 (79.5)	19 (86.4)	1438 (79.6)	0.425	235 (32.7)	3 (25.0)	239 (32.5)	0.571	443 (56.0)	5 (26.3)	456 (55.4)	0.010
Age at diagnosis		45.7 (13.7)	53.0 (11.4)	45.8 (13.7)	0.013	37.9 (13.4)	31.3 (13.5)	37.8 (13.4)	0.091	42.5 (12.3)	41.8 (14.2)	42.4 (12.3)	0.807
Disease duration		9.0 (8.4)	6.8 (3.7)	9.0 (8.4)	0.209	9.3 (9.9)	2.4 (2.5)	9.2 (9.8)	0.017	7.0 (6.7)	8.2 (3.8)	7.0 (6.6)	0.411
Smoking	Current	1235 (69.5)	20 (90.9)	1262 (69.8)	0.161	406 (56.5)	10 (83.3)	420 (57.1)	0.150	524 (66.2)	17 (89.5)	551 (67.0)	0.197
	Ex-smoker	318 (17.9)	2 (9.1)	320 (17.7)		225 (31.3)	1 (8.3)	228 (31.0)		152 (19.2)	1 (5.3)	156 (19.0)	
	Never	185 (10.4)	0 (0.0)	186 (10.3)		62 (8.6)	0 (0.0)	62 (8.4)		82 (10.4)	1 (5.3)	83 (10.1)	
Charlson Comorbidity Index		2.3 (1.6)	2.5 (1.8)	2.3 (1.6)	0.459	1.8 (1.3)	1.0 (0.0)	1.8 (1.3)	0.03	1.9 (1.2)	2.0 (2.2)	1.9 (1.2)	0.607
Previous bDMARD	First-line	987 (55.5)	10 (45.5)	1002 (55.5)	0.344	443 (61.7)	9 (75.0)	457 (62.1)	0.347	478 (60.4)	11 (57.9)	496 (60.3)	0.823
	Second-line	790 (44.5)	12 (54.5)	805 (44.5)		275 (38.3)	3 (25.0)	279 (37.9)		313 (39.6)	8 (42.1)	327 (39.7)	
Corticosteroids		1119 (78.6)	14 (77.8)	1136 (78.5)	0.934	82 (22.6)	1 (14.3)	83 (22.2)	0.602	241 (51.4)	6 (46.2)	251 (51.0)	0.710
Concomitant csDMARD	MTX	934 (72.3)	9 (56.3)	947 (72.0)	0.155	115 (29.8)	1 (14.3)	116 (29.2)	0.373	340 (70.0)	8 (57.1)	351 (69.1)	0.304
	LFN	460 (41.7)	7 (50.0)	467 (41.6)	0.532	18 (5.4)	0 (0.0)	18 (5.2)	0.529	150 (38.0)	4 (33.3)	154 (37.2)	0.744
	SSZ	58 (6.4)	1 (7.7)	59 (6.4)	0.854	74 (20.8)	3 (37.5)	78 (21.3)	0.254	37 (10.9)	0 (0.0)	37 (10.4)	0.226
Mean time since discontinuation of previous bDMARD		23.3 (34.1)	54.3 (48.6)	23.9 (34.7)	<0.001	27.0 (32.8)	28.4 (22.4)	27.2 (32.6)	0.879	23.9 (34.3)	54.0 (33.4)	24.9 (34.7)	<0.001
Treatment at discontinuation	TNF-i	1195 (67.2)	14 (63.6)	1217 (67.3)	0.881	664 (92.5)	12 (100.)	682 (92.7)	0.807	644 (81.4)	19 (100.)	676 (82.1)	0.634
	IL6-i	193 (10.9)	3 (13.6)	196 (10.8)		1 (0.1)	0 (0.0)	1 (0.1)		0 (0.0)	0 (0.0)	0 (0.0)	
	CD20-i	187 (10.5)	2 (9.1)	189 (10.5)		0 (0.0)	0 (0.0)	0 (0.0)		0 (0.0)	0 (0.0)	0 (0.0)	
	JAK-i	68 (3.8)	0 (0.0)	68 (3.8)		0 (0.0)	0 (0.0)	0 (0.0)		2 (0.3)	0 (0.0)	2 (0.2)	

	IL1-i	4 (0.2)	0 (0.0)	4 (0.2)		0 (0.0)	0 (0.0)	0 (0.0)		1 (0.1)	0 (0.0)	1 (0.1)	
	IL17A-i	0 (0.0)	0 (0.0)	0 (0.0)		52 (7.2)	0 (0.0)	52 (7.1)		57 (7.2)	0 (0.0)	57 (6.9)	
	IL12/23-i	0 (0.0)	0 (0.0)	0 (0.0)		1 (0.1)	0 (0.0)	1 (0.1)		27 (3.4)	0 (0.0)	27 (3.3)	
	PDE4-i	0 (0.0)	0 (0.0)	0 (0.0)		0 (0.0)	0 (0.0)	0 (0.0)		57 (7.2)	0 (0.0)	57 (6.9)	
	Abt	128(7.2)	3 (13.6)	131 (7.2)		0 (0.0)	0 (0.0)	0 (0.0)		3 (0.4)	0 (0.0)	3 (0.4)	
RF		772 (43.4)	7 (31.8)	781 (43.2)	0.285	-	-	-		-	-	-	
ACPA		729 (72.0)	3 (27.3)	732 (71.4)	0.004	-	-	-		-	-	-	
HLA-B27		-	-	-		517 (72.0)	7 (58.3)	529 (71.9)	0.546	110 (13.9)	3 (15.8)	116 (14.1)	0.935
Moderate-high activity*		208 (16.3)	1 (6.3)	210 (16.2)	0.277	113 (18.8)	2 (25.0)	116 (19.0)	0.658	127 (19.8)	0 (0.0)	131 (19.8)	0.055

Footnote to supplementary table 3. Disc.: Discontinuation; Rem: remission; b-DMARD: biologic-disease modifying antirheumatic drug; m: Months; RA: rheumatoid arthritis; AS: ankylosing spondylitis; PsA: psoriatic arthritis; csDMARD: conventional synthetic DMARD; MTX: methotrexate, LFN: leflunomide; SSZ: sulfasalazine; i: inhibitor; Abt: abatacept; RF: rheumatoid factor; ACPA: anti-citrullinated peptide antibody.

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