

Supplementary File 1:

Supplementary Table 1 Covariates assessed at index and/or outcome date including variable type and lookback window

Variables	Type	Lookback window	Assessed at Index date (I) / Outcome date (O)
Date	categorical	-	I
Age	continuous	ever before	I / O
Sex	categorical	ever before	I / O
Language	categorical	ever before	I / O
Schooling	categorical	ever before	I / O
BMI	continuous	ever before	I / O
Physical activity	categorical	ever before	I / O
Smoking	categorical	ever before	I / O
Alcohol consumption	categorical	ever before	I / O
RA duration	continuous	ever before	I
Family history of rheumatic diseases	categorical	ever before	I / O
RA factor	categorical	ever before	I / O
Anti-ccp	categorical	ever before	I / O
Duration since last consultation	continuous	ever before	I / O
Prescriber	categorical	ever before	I / O
DAS28-ESR score	continuous	3 months	I / O
DAS28-CRP score	continuous	3 months	I / O
RADAI score	continuous	3 months	I / O
HAQ score	continuous	3 months	I / O
EuroQOL score	continuous	3 months	I / O
SF 12 mental component score	continuous	3 months	I / O
SF 12 physical component score	continuous	3 months	I / O
Biologic or targeted synthetic DMARD agent	categorical	-	I / O
Conventional synthetic DMARD use	categorical	12 months	I / O
Prednisone use	categorical	12 months	I / O
Other pain/anti-inflammatory medication use	categorical	12 months	I / O
Myocardial infarction	categorical	ever before	I / O
Ischemic heart disease	categorical	ever before	I / O
Heart failure	categorical	ever before	I / O
Hypertension (diagnosis or treatment)	categorical	ever before	I / O
Other cardiovascular/heart disease	categorical	ever before	I / O
Cerebrovascular disease	categorical	ever before	I / O
Peripheral vascular disease	categorical	ever before	I / O
Deep vein thrombosis, pulmonary embolism	categorical	ever before	I / O
Cancer	categorical	ever before	I / O
Infections	categorical	3 months	I / O
Injection site reaction	categorical	3 months	I / O
Diabetes (type 1 or 2)	categorical	ever before	I / O
Thyroid disease	categorical	ever before	I / O
Hyperlipidemia	categorical	ever before	I / O
Osteoarthritis or arthroplasty	categorical	ever before	I / O
Degenerative spine disease or surgery surgery	categorical	ever before	I / O
Other orthopedic surgery	categorical	ever before	I / O
Osteoporosis or fracture (diagnosis or treatment)	categorical	ever before	I / O
Fibromyalgia	categorical	ever before	I / O
Other auto-immune disease	categorical	ever before	I / O
Hematologic / immunologic diseases	categorical	ever before	I / O
Pulmonary diseases	categorical	ever before	I / O
Depression / Anxiety	categorical	ever before	I / O
Alcohol/drug abuse	categorical	ever before	I / O

BMI: body mass index; CRP: C-reactive protein; DAS: disease activity score; DMARD: disease modifying anti-rheumatic drug, ESR: erythrocyte sedimentation rate; EuroQOL: a standardized instrument for measuring generic health status (EQ-5D), HAQ: health assessment questionnaire; RA: rheumatoid arthritis; RADAI: Rheumatoid Arthritis Disease Activity Index; SF: Short form (health survey);

Supplementary File 2:**Supplementary Table 2** Classification of treatment cessation reasons

Treatment cessation reason capture in SCQM	Classification	Number of patients (n=2526)
WITHDRAWAL_REASON_ADVERSE_EVENT	Adverse event	393
WITHDRAWAL_REASON_ADVERSE_EVENT, WITHDRAWAL_REASON_NOT_EFFECTIVE	Adverse event	1
WITHDRAWAL_REASON_ADVERSE_EVENT, WITHDRAWAL_REASON_OTHER	Adverse event	15
WITHDRAWAL_REASON_ADVERSE_EVENT, WITHDRAWAL_REASON_REMISSION	Adverse event	4
WITHDRAWAL_REASON_ADVERSE_EVENT, WITHDRAWAL_REASON_REMISSION, WITHDRAWAL_REASON_OTHER	Adverse event	1
WITHDRAWAL_REASON_NOT_EFFECTIVE, WITHDRAWAL_REASON_ADVERSE_EVENT	Adverse event	53
WITHDRAWAL_REASON_NOT_EFFECTIVE, WITHDRAWAL_REASON_ADVERSE EVENT,WITHDRAWAL_REASON_OTHER	Adverse event	1
WITHDRAWAL_REASON_OTHER, WITHDRAWAL_REASON_ADVERSE_EVENT	Adverse event	2
WITHDRAWAL_REASON_NOT_EFFECTIVE	Non-response	940
WITHDRAWAL_REASON_OTHER, WITHDRAWAL_REASON_NOT_EFFECTIVE	Non-response	2
WITHDRAWAL_REASON_NOT_EFFECTIVE, WITHDRAWAL_REASON_OTHER	Non-response	24
WITHDRAWAL_REASON_OTHER	Other reason	438
WITHDRAWAL_REASON_REMISSION	Remission	194
WITHDRAWAL_REASON_REMISSION, WITHDRAWAL_REASON_OTHER	Remission	14
WITHDRAWAL_REASON_NOT_EFFECTIVE, WITHDRAWAL_REASON_REMISSION	Unknown	1
<i>No reason given</i>	Unknown	443

Supplementary File 3:**Supplementary Table 4** Numeric values corresponding to Supplementary Figure 2. Distribution of treatment cessation reasons over time

Year	Overall	Treatment cessation reason									
		Non-response		Adverse Event		Remission		Other reason		Unknown reason	
1999	1	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%
2000	18	5	27.8%	1	5.6%	0	0.0%	0	0.0%	12	66.7%
2001	48	8	16.7%	9	18.8%	0	0.0%	0	0.0%	31	64.6%
2002	55	14	25.5%	14	25.5%	1	1.8%	4	7.3%	22	40.0%
2003	122	28	23.0%	17	13.9%	1	0.8%	16	13.1%	60	49.2%
2004	100	27	27.0%	13	13.0%	0	0.0%	11	11.0%	49	49.0%
2005	122	31	25.4%	21	17.2%	2	1.6%	11	9.0%	57	46.7%
2006	161	35	21.7%	27	16.8%	8	5.0%	17	10.6%	74	46.0%
2007	190	64	33.7%	30	15.8%	7	3.7%	17	8.9%	72	37.9%
2008	177	66	37.3%	38	21.5%	9	5.1%	29	16.4%	35	19.8%
2009	186	79	42.5%	27	14.5%	20	10.8%	36	19.4%	24	12.9%
2010	178	73	41.0%	48	27.0%	12	6.7%	42	23.6%	3	1.7%
2011	192	89	46.4%	44	22.9%	19	9.9%	38	19.8%	2	1.0%
2012	183	88	48.1%	33	18.0%	22	12.0%	39	21.3%	1	0.5%
2013	146	67	45.9%	35	24.0%	15	10.3%	29	19.9%	0	0.0%
2014	159	72	45.3%	35	22.0%	13	8.2%	38	23.9%	1	0.6%
2015	156	65	41.7%	28	17.9%	26	16.7%	37	23.7%	0	0.0%
2016	129	64	49.6%	15	11.6%	25	19.4%	25	19.4%	0	0.0%
2017	120	57	47.5%	20	16.7%	17	14.2%	26	21.7%	0	0.0%
2018	83	34	41.0%	15	18.1%	11	13.3%	23	27.7%	0	0.0%

Supplementary File 4:

Supplementary Table 5 All patient characteristics at recorded stop date of the first b/tsDMARD

Patient characteristic at the index date	Overall n=2526	Non-response n=966 (38%)	Adverse event n=470 (19%)	Remission n=208 (8%)	Other reasons n=438 (17%)	p-value	Unknown n= 444 (18%)
Mean Age [years] (SD)	56.3 (13.5)	56.3 (12.4)	56.2 (13.5)	57.8 (15.2)	56.1 (15.1)	0.45	56.2 (13.7)
Sex							
Women (%)	1972 (78.1%)	743 (76.9%)	392 (83.4%)	146 (70.2%)	349 (79.7%)	<0.001	342 (77.0%)
Men (%)	554 (21.9%)	223 (23.1%)	78 (16.6%)	62 (29.8%)	89 (20.3%)		102 (33.0%)
Language							
German-speaking	1852 (73.3%)	688 (71.2%)	355 (75.5%)	165 (79.3%)	334 (76.3%)	0.15	310 (69.8%)
French-speaking	456 (18.1%)	190 (19.7%)	84 (17.9%)	30 (14.4%)	66 (15.1%)		86 (19.4%)
Italian-speaking	129 (5.1%)	56 (5.8%)	21 (4.5%)	10 (4.8%)	29 (6.6%)		13 (2.9%)
Missing ^a (%)	89 (3.5%)	32 (3.3%)	10 (2.1%)	3 (1.4%)	9 (2.1%)		35 (7.9%)
Schooling							
Compulsory schooling (%)	684 (27.1%)	254 (26.3%)	131 (27.9%)	60 (28.9%)	115 (26.3%)	0.04	124 (27.9%)
Upper secondary level (%)	1294 (51.2%)	509 (52.7%)	237 (50.4%)	105 (50.5%)	196 (44.8%)		247 (55.6%)
Tertiary education (%)	312 (12.4%)	101 (10.5%)	62 (13.2%)	31 (14.9%)	72 (16.4%)		46 (10.4%)
Missing ^a (%)	236 (9.3%)	102 (10.6%)	40 (8.5%)	12 (5.8%)	55 (12.6%)		27 (6.1%)
Mean BMI (SD)	25.6 (5.1)	25.9 (5.1)	26 (5.4)	25.6 (5.1)	25.3 (5.0)	0.25	24.9 (4.7)
Missing BMI (%)	155 (6.1%)	77 (8.0%)	33 (7.0%)	10 (4.8%)	35 (7.8%)		1 (0.2%)
Physical activity level							
None (%)	261 (10.3)	81 (8.4%)	51 (10.9%)	9 (4.3%)	35 (8%)	0.23	85 (19.1%)
Low ^b (%)	558 (22.1)	210 (21.7%)	101 (21.5%)	41 (19.7%)	86 (19.6%)		120 (27.0%)
Moderate ^c (%)	900 (35.6)	343 (35.5%)	162 (34.5%)	89 (42.8%)	159 (36.3%)		147 (33.1%)
High ^d (%)	639 (25.3)	253 (26.2%)	121 (25.7%)	62 (29.8%)	120 (27.4%)		83 (18.7%)
Missing ^a (%)	168 (6.7%)	79 (8.2%)	35 (7.5%)	7 (3.4%)	38 (8.7%)		9 (2.0%)
Smoking							
Yes (%)	592 (23.4%)	212 (22.0%)	117 (24.9%)	51 (24.5%)	97 (22.2%)	0.28	115 (25.9%)
No (%)	1093 (43.3%)	479 (49.6%)	219 (46.6%)	136 (65.4%)	231 (52.7%)		28 (6.3%)
Missing ^a (%)	841 (33.3%)	275 (28.5%)	134 (28.5%)	21 (10.1%)	110 (25.1%)		301 (67.8%)
Alcohol consumption							
Yes (%)	1360 (53.8%)	487 (50.4%)	251 (53.4%)	144 (69.2%)	256 (58.5%)	<0.001	222 (50.0%)
No (%)	906 (35.9%)	370 (38.3%)	172 (36.6%)	53 (25.5%)	131 (29.9%)		180 (40.5%)
Missing ^a (%)	260 (10.3%)	109 (11.3%)	47 (10%)	11 (5.3%)	51 (11.6%)		42 (9.5%)
RA duration (median, IQR)	6.8 (3-13.9)	6.2 (2.7-12.7)	6.1 (2.5-13.5)	5.1 (3.1-10.5)	7.4 (3.3-16.4)	<0.01	8.8 (4.3-16.8)
Missing RA duration ^a (%)	58 (2.3%)	20 (2.1%)	7 (1.5%)	5 (2.4%)	11 (2.5%)		15 (3.4%)
Family history of rheumatic diseases ^e							
Yes (%)	636 (25.2%)	234 (24.2%)	134 (28.5%)	42 (20.2%)	116 (26.5%)	0.05	110 (24.8%)
No (%)	1202 (47.6%)	532 (55.1%)	243 (51.7%)	125 (60.1%)	214 (48.9%)		88 (19.8%)
Missing ^a (%)	688 (27.2%)	200 (20.7%)	93 (19.8%)	41 (19.7%)	108 (24.7%)		246 (55.4%)

RA factor							
Positive (%)	1772 (70.2%)	668 (69.2%)	325 (69.2%)	140 (67.3%)	304 (69.4%)	0.92	335 (75.5%)
Negative (%)	681 (27.0%)	274 (28.4%)	128 (27.2%)	60 (28.9%)	116 (26.5%)		103 (23.2%)
Missing ^a (%)	73 (2.9%)	24 (2.5%)	17 (3.6%)	8 (3.9%)	18 (4.1%)		6 (1.4%)
ACPs							
Positive (%)	1300 (51.5%)	512 (53%)	263 (56%)	120 (57.7%)	256 (58.5%)	0.24	149 (33.6%)
Negative (%)	672 (26.6%)	282 (29.2%)	132 (28.1%)	65 (31.3%)	107 (24.4%)		86 (19.4%)
Missing ^a (%)	554 (21.9%)	172 (17.8%)	75 (16%)	23 (11.1%)	75 (17.1%)		209 (47.1%)
Mean DAS28crp (SD)	3.4 (1.3)	3.8 (1.1)	3.4 (1.3)	2.0 (0.6)	3.1 (1.2)	<0.001	3.8 (1.3)
DAS28crp < 2.6	192 (7.6%)	36 (3.7%)	44 (9.4%)	64 (30.8%)	45 (10.3%)	<0.0001	3 (0.7%)
2.6 ≤ DAS28crp < 3.2	73 (2.9%)	33 (3.4%)	21 (4.5%)	4 (1.9%)	12 (2.7%)		3 (0.7%)
3.2 ≤ DAS28crp < 5.1	277 (11%)	159 (16.5%)	61 (13%)	5 (2.4%)	41 (9.4%)		11 (2.5%)
5.1 ≤ DAS28crp	69 (2.7%)	38 (3.9%)	18 (3.8%)	0 (0%)	9 (2.1%)		18 (3.8%)
Missing DAS28crp ^a (%)	1915 (75.8%)	700 (72.5%)	326 (69.4%)	135 (64.9%)	331 (75.6%)		328 (95.3%)
Mean DAS28esr (SD)	3.8 (1.5)	4.1 (1.4)	3.8 (1.4)	2.0 (0.9)	3.4 (1.4)	<0.001	4.1 (1.5)
DAS28esr < 2.6	233 (9.2%)	42 (4.4%)	42 (8.9%)	60 (28.9%)	37 (8.5%)	<0.0001	52 (11.7%)
2.6 ≤ DAS28esr < 3.2	126 (5%)	36 (3.7%)	31 (6.6%)	6 (2.9%)	24 (5.5%)		29 (6.5%)
3.2 ≤ DAS28esr < 5.1	489 (19.4%)	198 (20.5%)	97 (20.6%)	9 (4.3%)	55 (12.6%)		130 (29.3%)
5.1 ≤ DAS28esr	222 (8.8%)	82 (8.5%)	37 (7.9%)	0 (0%)	14 (3.2%)		89 (29.3%)
Missing DAS28esr ^a (%)	1456 (57.6%)	608 (62.9%)	263 (56%)	133 (63.9%)	308 (70.3%)		144 (32.4%)
Mean RADAI score (SD)	3.7 (2.2)	4.3 (2.0)	3.6 (2.1)	1.4 (1.3)	3.0 (2.1)	<0.0001	3.9 (2.4)
Missing RADAI score (%)	1683 (66.6%)	718 (74.3%)	306 (65.1%)	150 (72.1%)	344 (78.5%)		165 (37.2%)
Median HAQ score (IQR)	0.9 (0.4-1.5)	0.9 (0.5-1.6)	0.8 (0.3-1.4)	0.1 (0-0.6)	0.8 (0.3-1.3)	<0.0001	1.4 (0.6-1.9)
Missing HAQ score (%)	1617 (64.0%)	688 (71.2%)	288 (61.3%)	143 (68.8%)	328 (74.9%)		170 (38.3%)
Median EuroQoL score (IQR)	69 (59.8-77.9)	66.4 (48.0-75.3)	68.7 (57.0-77.9)	77.9 (71.3-100)	69 (59.8-77.9)	<0.0001	74.6 (66.4-77.9)
Missing EuroQoL score (%)	2068 (81.9%)	779 (80.6%)	353 (75.1%)	149 (71.6%)	359 (82.0%)		428 (96.4%)
Mean SF12 PC score (SD)	36.9 (10.6)	34.9 (9.5)	37.8 (10.5)	48.6 (7.8)	40.3 (10.3)	<0.0001	34.4 (10.1)
Mean SF12 MC score (SD)	45.9 (11.9)	45.4 (11.6)	45.6 (12.0)	51.5 (9.1)	47.5 (10.6)	<0.01	44.6 (12.7)
Missing SF 12 mental/physical component score (%)	1801 (71.3%)	764 (79.1%)	324 (68.9%)	156 (75%)	352 (80.4%)		205 (46.2%)
Median duration since last consultation [months] (IQR)	3.3 (0-8.1)	4.0 (0.7-8.3)	2.9 (0.7-7.2)	3.9 (0-9.0)	5.4 (1.4-9.5)	<0.001	0 (0-4.5)
Prescriber							
University hospital (%)	440 (17.4%)	144 (14.9%)	61 (13.0%)	38 (18.3%)	75 (17.1%)	<0.01	122 (27.5%)
Other hospital (%)	482 (19.1%)	194 (20.1%)	104 (22.1%)	28 (13.5%)	57 (13%)		99 (22.3%)
Office (%)	1588 (62.9%)	623 (64.5%)	302 (64.3%)	142 (68.3%)	303 (69.2%)		218 (49.1%)

Missing ^a (%)	16 (0.6%)	5 (0.5%)	3 (0.6%)	0 (0%)	3 (0.7%)		5 (1.1%)
Conventional synthetic DMARDs							
Methotrexate (%)	1588 (62.9%)	258 (26.7%)	140 (29.8%)	59 (28.4%)	126 (28.8%)	0.64	155 (34.9%)
Leflunomid (%)	317 (12.6%)	134 (13.9%)	71 (15.1%)	8 (3.9%)	39 (8.9%)	<0.0001	65 (14.6%)
Sulfasalazin (%)	156 (6.2%)	60 (6.2%)	32 (6.8%)	6 (2.9%)	29 (6.6%)	0.22	29 (6.5%)
Chloroquine (%)	128 (5.1%)	49 (5.0%)	33 (7.0%)	8 (3.8%)	14 (3.2%)	0.05	24 (5.4%)
Azathioprine (%)	5 (0.2%)	2 (0.2%)	0 (0%)	0 (0%)	2 (0.5%)	0.41	1 (0.2%)
Cyclosporin A (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	NA	0 (0%)
Cyclophosphamid (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	NA	0 (0%)
csDMARD use (%)	1110 (43.9%)	415 (43.0%)	221 (47.0%)	73 (35.1%)	178 (40.6%)	0.03	223 (50.2%)
Prednisone use (%)	865 (34.2%)	379 (39.2%)	183 (38.9%)	30 (14.4%)	132 (30.1%)	<0.0001	141 (31.8%)
Use of other pain/anti-inflammatory medication (%)	872 (34.5%)	413 (42.8%)	178 (37.9%)	72 (34.6%)	182 (41.6%)	0.09	27 (6.1%)
Comorbidities							
Myocardial infarction (%)	5 (0.2%)	2 (0.2%)	1 (0.2%)	1 (0.5%)	1 (0.2%)	0.91	0 (0%)
Ischemic heart disease (%)	161 (6.4%)	61 (6.3%)	30 (6.4%)	10 (4.8%)	29 (6.6%)	0.83	30 (6.8%)
Heart failure (%)	21 (0.8%)	8 (0.8%)	4 (0.8%)	2 (0.9%)	5 (1.1%)	0.95	2 (0.5%)
Other cardiovascular/heart disease (%)	18 (0.7%)	9 (0.9%)	5 (1.1%)	0 (0%)	4 (0.9%)	0.55	0 (0%)
Cardiac disorders (%)	189 (7.5%)	74 (7.7%)	37 (7.9%)	11 (5.3%)	35 (8%)	0.63	31 (7.0%)
Cerebrovascular disease (%)	78 (3.1%)	27 (2.8%)	14 (3%)	5 (2.4%)	14 (3.2%)	0.95	18 (4.1%)
Peripheral vascular disease (%)	10 (0.4%)	3 (0.3%)	0 (0%)	3 (1.4%)	4 (0.9%)	0.04	0 (0%)
Deep vein thrombosis, pulmonary embolism (%)	4 (0.2%)	2 (0.2%)	0 (0%)	0 (0%)	2 (0.5%)	0.41	0 (0%)
Hypertension (%)	734 (29.1%)	292 (30.2%)	134 (28.5%)	64 (30.8%)	150 (34.3%)	0.29	93 (21.0%)
Diabetes (type 1 or 2) (%)	157 (6.2%)	61 (6.3%)	22 (4.7%)	19 (9.1%)	30 (6.9%)	0.16	24 (5.4%)
Hyperlipidemia (%)	282 (11.2%)	125 (12.9%)	52 (11.1%)	40 (19.2%)	60 (13.7%)	0.04	4 (0.9%)
Metabolic syndrome (%)	111 (4.4%)	46 (4.8%)	22 (4.7%)	13 (6.3%)	24 (5.5%)	0.78	5 (1.1%)
Cancer (%)	77 (3.1%)	27 (2.8%)	13 (2.8%)	11 (5.3%)	18 (4.1%)	0.20	8 (1.8%)
Infections ^f (%)	155 (6.1%)	56 (5.8%)	43 (9.2%)	17 (8.2%)	32 (7.3%)	0.12	7 (1.6%)
Injection site reaction ^f (%)	16 (0.6%)	2 (0.2%)	13 (2.8%)	1 (0.5%)	0 (0%)	<0.0001	0 (%)
Thyroid disease (%)	42 (1.7%)	18 (1.9%)	10 (2.1%)	3 (1.4%)	11 (2.5%)	0.79	0 (0%)
Osteoarthritis or arthroplasty (%)	493 (19.5%)	195 (20.2%)	93 (19.8%)	42 (20.2%)	96 (21.9%)	0.86	67 (15.1%)
Degenerative spine disease or surgery (%)	542 (21.5%)	199 (20.6%)	87 (18.5%)	31 (14.9%)	85 (19.4%)	0.28	139 (31.1%)
Other orthopedic surgery (%)	466 (18.5%)	171 (17.7%)	83 (17.7%)	29 (13.9%)	86 (19.6%)	0.37	97 (21.9%)
Osteoporosis or	608 (24.1%)	218 (22.6%)	106 (22.6%)	53 (25.5%)	105 (24%)	0.78	153 (34.5%)

fracture (%)							
Fibromyalgia	359 (14.2%)	178 (18.4%)	66 (14.0%)	14 (6.7%)	43 (9.8%)	<0.0001	58 (13.1%)
Other auto-immune disease ^g (%)	79 (3.1%)	28 (2.9%)	14 (3.0%)	14 (6.7%)	20 (4.6%)	0.03	3 (0.7%)
Hematologic / immunologic diseases (%)	36 (1.4%)	13 (1.4%)	9 (1.9%)	3 (1.4%)	9 (2.1%)	0.74	2 (0.5%)
Pulmonary diseases (%)	210 (8.3%)	75 (7.8%)	40 (8.5%)	20 (9.6%)	44 (10.1%)	0.51	31 (7.0%)
Depression / Anxiety (%)	310 (12.3%)	105 (10.9%)	72 (15.3%)	16 (7.7%)	51 (11.6%)	0.02	66 (14.9%)
Alcohol/drug abuse (%)	41 (1.6%)	17 (1.8%)	6 (1.3%)	2 (1%)	9 (2.1%)	0.67	7 (1.6%)

ACPA: Anti-citrullinated protein antibodies; BMI: body mass index; CRP: C-reactive protein; DAS: disease activity score; DMARD: disease modifying anti-rheumatic drug, ESR: erythrocyte sedimentation rate; EUROQOL: *a standardized instrument for measuring generic health status (EQ-5D)*, HAQ: health assessment questionnaire; RA: rheumatoid arthritis; RADAI: Rheumatoid Arthritis Disease Activity Index; SF: Short form (health survey); Percentages correspond to respective column totals.

^a Missing categories were not used to estimate p-values per group.

^b low physical activity: <30 min daily walking/cycling or <60 min power sports per week

^c moderate physical activity: 30-60 min daily walking / cycling or 1-2 h power sports per week

^d high physical activity: >60 min daily walking cycling or >2 h power sports per week

^e family anamnesis includes rheumatoid arthritis, ankylosing spondylitis, psoriasis, psoriatic arthritis, chronic inflammatory bowel disease, and other spondyloarthropathies (e.g. reactive arthritis)

^f infections and injection site reactions were captured in a 3 months lookback window only

^g other auto-immune disease include Sjogren syndrome, systemic lupus erythematoses, and other autoimmune disease unspecified

Supplementary File 5

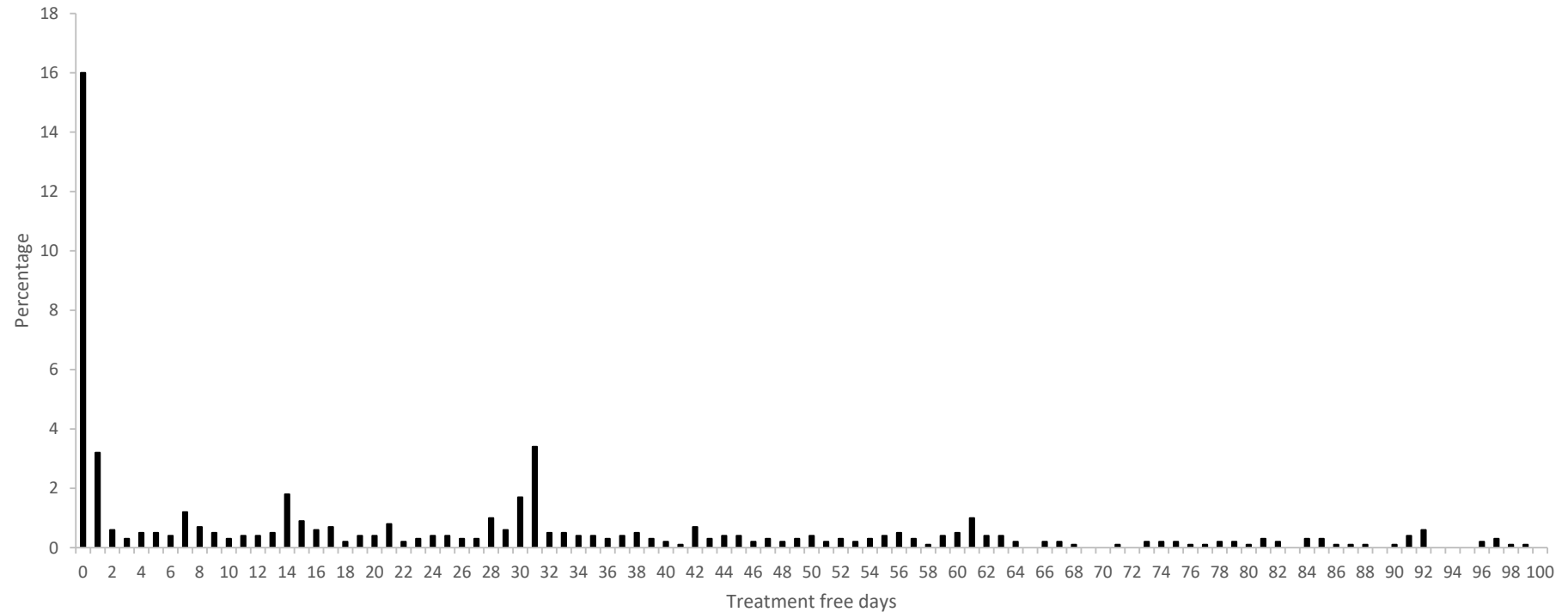
Supplementary Table 6. Median treatment time in days of first-time b/tsDMARD until first treatment stop overall and stratified by cessation reason and by the combination of cessation reason and agent

	Any cessation reason		Non-response		Adverse event		Remission		Other reasons		Unknown	
	N (%)	median (IQR) ^a	N (%)	median (IQR) ^a	N (%)	median (IQR) ^a	N (%)	median (IQR) ^a	N (%)	median (IQR) ^a	N (%)	median (IQR) ^a
Overall	2526 (100%)	409 (170-994)	966 (100%)	392 (173-1001)	470 (100%)	181 (61-541)	208 (100%)	891 (510-1463)	438 (100%)	546 (207-1245)	444 (100%)	424 (306-906)
bDMARD TNF inhibitors	2188 (86.6%)	425 (182-1056)	837 (86.6%)	400 (181-1081)	398 (84.7%)	185 (66-560)	162 (77.9%)	980 (629-1522)	358 (81.7%)	609 (244-1335)	433 (97.5%)	427 (306-945)
Adalimumab	763 (30.2%)	417 (179-1058)	317 (32.8%)	437 (178-1161)	144 (30.6%)	217 (83-543)	71 (34.1%)	949 (528-1520)	124 (28.3%)	617 (233-1382)	107 (24.1%)	373 (258-725)
Certolizumab	47 (1.9%)	373 (141-793)	18 (1.9%)	265 (169-377)	14 (3.0%)	248 (35-730)	8 (3.8%)	1019 (808-1201)	7 (1.6%)	434 (68-974)	NA	NA
Etanercept	799 (31.6%)	428 (177-1125)	282 (29.2%)	402 (183-1194)	132 (28.1%)	152 (58-503)	41 (19.7%)	1193 (702-2019)	148 (33.8%)	640 (244-1271)	196 (44.1%)	513 (333-1031)
Golimumab	155 (6.1%)	271 (118-513)	80 (8.3%)	271 (127-450)	32 (6.8%)	143 (49-406)	18 (8.7%)	877 (513-1095)	25 (5.8%)	364 (92-476)	NA	NA
Infliximab	424 (16.8%)	516 (245-1101)	140 (14.5%)	514 (228-1135)	76 (16.2%)	354 (116-900)	24 (11.5%)	906 (733-1576)	54 (12.3%)	778 (395-1447)	130 (29.3%)	428 (283-987)
bDMARD non-TNF inhibitors	294 (11.6%)	366 (132-740)	114 (11.8%)	307 (133-740)	56 (11.9%)	168 (49-420)	42 (20.2%)	553 (404-1027)	71 (16.2%)	388 (112-881)	11 (2.5%)	366 (182-279)
Abatacept	146 (5.8%)	357 (128-652)	61 (6.3%)	350 (133-791)	22 (4.7%)	216 (72-491)	19 (9.1%)	522 (404-695)	41 (9.4%)	304 (62-1216)	NA	NA
Rituximab	47 (1.9%)	382 (351-964)	15 (1.6%)	414 (50-740)	6 (1.3%)	661 (16-1286)	10 (4.8%)	481 (380-1263)	8 (1.8%)	796 (389-1625)	8 (1.8%)	373 (363-379)
Tocilizumab	101 (4.0%)	273 (127-797)	38 (3.9%)	272 (167-539)	28 (6.0%)	141 (40-327)	13 (6.3%)	911 (462-1027)	22 (5.0%)	515 (66-1030)	0	NA
tsDMARD	44 (1.7%)	146 (72-381)	15 (1.6%)	245 (91-401)	16 (3.4%)	68 (37-260)	NA	NA	9 (2.1%)	116 (92-234)	NA	NA
Baricitinib	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tofacitinib	42 (1.7%)	146 (75-401)	15 (1.6%)	245 (91-401)	15 (3.2%)	69 (38-287)	NA	NA	8 (1.8%)	114 (60-256)	NA	NA

bDMARD: biologic disease modifying antirheumatic drug; tsDMARD: targeted synthetic disease modifying antirheumatid drug; IQR: interquartile range; NA: not applicable, data not shown because <5 observations; TNF: tumor necrosis factor

^a median treatment time of first-time RA targeted therapy until first treatment stop in days

Supplementary File 6.



Supplementary Figure 1: Extract of the distribution of treatment-free days of a maximum of 100 days in the overall study population stopping b/tsDMARDs

b/tsDMARD: biologic or targeted synthetic disease modifying antirheumatic drug

Since the figure depicts only the first 100 treatment-free days, the proportion of patients re-starting b/tsDMARDs does not add up to 100%.

Corresponding numeric values can be seen in Supplementary Table 7

Supplementary Table 7. Numeric values corresponding to **Supplementary Figure 1.** Extract of the distribution of treatment-free days of a maximum of 100 days in the overall study population stopping b/tsDMARDs

Treatment-free days	n	%	Cumulative %
0	403	16.0	16.0
1	81	3.2	19.2
2	14	0.6	19.8
3	7	0.3	20.1
4	13	0.5	20.6
5	13	0.5	21.1
6	11	0.4	21.5
7	31	1.2	22.7
8	18	0.7	23.4
9	12	0.5	23.9
10	7	0.3	24.2
11	10	0.4	24.6
12	10	0.4	25.0
13	13	0.5	25.5
14	45	1.8	27.3
15	22	0.9	28.2
16	15	0.6	28.8
17	17	0.7	29.5
18	5	0.2	29.7
19	11	0.4	30.1
20	11	0.4	30.5
21	19	0.8	31.3
22	5	0.2	31.5
23	8	0.3	31.8
24	9	0.4	32.2
25	9	0.4	32.6
26	8	0.3	32.9
27	8	0.3	33.2
28	26	1.0	34.2
29	14	0.6	34.8
30	43	1.7	36.5
31	86	3.4	39.9
32	13	0.5	40.4
33	13	0.5	40.9
34	11	0.4	41.3
35	11	0.4	41.7
36	8	0.3	42.0
37	9	0.4	42.4
38	13	0.5	42.9
39	7	0.3	43.2
40	5	0.2	43.4
41	3	0.1	43.5
42	18	0.7	44.2
43	7	0.3	44.5
44	9	0.4	44.9
45	9	0.4	45.3
46	5	0.2	45.5
47	7	0.3	45.8
48	6	0.2	46.0
49	7	0.3	46.3
50	10	0.4	46.7
51	5	0.2	46.9
52	7	0.3	47.2
53	5	0.2	47.4
54	7	0.3	47.7

55	9	0.4	48.1
56	13	0.5	48.6
57	8	0.3	48.9
58	2	0.1	49.0
59	9	0.4	49.4
60	12	0.5	49.9
61	24	1.0	50.9
62	9	0.4	51.3
63	10	0.4	51.7
64	4	0.2	51.9
65	1	0.0	51.9
66	5	0.2	52.1
67	5	0.2	52.3
68	2	0.1	52.4
69	0	0.0	52.4
70	1	0.0	52.4
71	3	0.1	52.5
72	1	0.0	52.5
73	6	0.2	52.7
74	4	0.2	52.9
75	4	0.2	53.1
76	3	0.1	53.2
77	3	0.1	53.3
78	4	0.2	53.5
79	5	0.2	53.7
80	2	0.1	53.8
81	8	0.3	54.1
82	4	0.2	54.3
83	1	0.0	54.3
84	7	0.3	54.6
85	8	0.3	54.9
86	3	0.1	55.0
87	2	0.1	55.1
88	2	0.1	55.2
89	1	0.0	55.2
90	3	0.1	55.3
91	9	0.4	55.7
92	16	0.6	56.3
93	0	0.0	56.3
94	1	0.0	56.3
95	1	0.0	56.3
96	6	0.2	56.6
97	8	0.3	56.9
98	3	0.1	57.0
99	2	0.1	57.1
100	1	0.0	57.1

b/tsDMARD: biologic or targeted synthetic disease modifying antirheumatic drug

Since the table depicts only the first 100 treatment-free days, the proportion of patients re-starting b/tsDMARDs does not add up to 100%.

Supplementary File 7:

Supplementary Table 8. All patient characteristics at recorded re-start of a b/tsDMARD

Patient characteristic at the outcome date	b/tsDMARD treatment cessation reasons					
	Overall n=2065	Non-response n=906	Adverse event n=385	Remission n=100	Other reasons n=325	Unknown n=349
Mean Age [years] (SD)	56.1 (13.4)	56.5 (12.3)	55.7 (13.7)	57.8 (15.7)	55.5 (14.8)	55.8 (13.5)
Sex						
Men (%)	433 (21.0%)	213 (23.5%)	56 (14.6%)	25 (25%)	63 (19.4%)	176 (21.8%)
Women (%)	1632 (79.0%)	693 (76.5%)	329 (85.5%)	75 (75%)	262 (80.6%)	273 (78.2%)
Language						
German-speaking	1513 (73.3%)	651 (71.9%)	291 (75.6%)	82 (82%)	241 (74.2%)	248 (71.1%)
French-speaking	386 (18.7%)	181 (20%)	70 (18.2%)	12 (12%)	52 (16%)	71 (20.3%)
Italian-speaking	107 (5.2%)	51 (5.6%)	17 (4.4%)	4 (4%)	24 (7.4%)	11 (3.2%)
Missing language ^a (%)	59 (2.9%)	23 (2.5%)	7 (1.8%)	2 (2%)	8 (2.5%)	19 (5.4%)
Schooling						
Compulsory schooling (%)	555 (26.9%)	242 (26.7%)	104 (27%)	26 (26%)	82 (25.2%)	101 (28.9%)
Upper secondary level (%)	1071 (51.9%)	476 (52.5%)	198 (51.4%)	50 (50%)	150 (46.2%)	197 (56.5%)
Tertiary education (%)	263 (12.7%)	99 (10.9%)	51 (13.3%)	20 (20%)	59 (18.2%)	34 (9.7%)
Missing ^a (%)	176 (8.5%)	89 (9.8%)	32 (8.3%)	4 (4%)	34 (10.5%)	17 (4.9%)
Mean BMI (SD)	25.6 (5)	26.0 (5.2)	25.7 (5.1)	25.4 (4.6)	25.3 (4.7)	25 (4.9)
Missing BMI (%)	107 (5.2%)	65 (7.2%)	22 (5.7%)	1 (1.0%)	19 (5.9%)	65 (18.6%)
Physical activity level						
None (%)	215 (10.4%)	78 (8.6%)	43 (11.2%)	3 (3%)	29 (8.9%)	62 (17.8%)
Low ^b (%)	456 (22.1%)	200 (22.1%)	75 (19.5%)	22 (22%)	66 (20.3%)	93 (26.7%)
Moderate ^c (%)	746 (36.1%)	322 (35.5%)	136 (35.3%)	43 (43%)	119 (36.6%)	126 (36.1%)
High ^d (%)	522 (25.3%)	240 (26.5%)	100 (26%)	31 (31%)	89 (27.4%)	62 (17.8%)
Missing ^a (%)	126 (6.1%)	66 (7.3%)	31 (8.1%)	1 (1%)	22 (6.8%)	6 (1.7%)
Smoking						
Yes (%)	466 (22.6%)	199 (22%)	89 (23.1%)	25 (25%)	65 (20%)	88 (25.2%)
No (%)	979 (47.4%)	479 (52.9%)	193 (50.1%)	73 (73%)	197 (60.6%)	37 (10.6%)
Missing ^a (%)	620 (30.0%)	228 (25.2%)	103 (26.8%)	2 (2.0%)	63 (19.4%)	224 (64.2%)
Alcohol consumption						
Yes (%)	1113 (53.9%)	461 (50.9%)	201 (52.2%)	71 (71%)	201 (61.9%)	179 (51.3%)
No (%)	765 (37.1%)	356 (39.3%)	147 (38.2%)	28 (28%)	98 (30.2%)	147 (37.8%)
Missing ^a (%)	187 (9.1%)	89 (9.8%)	37 (9.6%)	1 (1%)	26 (8%)	39 (10.0%)
RA duration (median, IQR)	6.9 (3.1-14.1)	6.2 (2.7-12.8)	6 (2.5-13.4)	6.1 (3.8-11.7)	8.1 (3.5-17)	8.8 (4.1-15.8)
Missing RA duration (%)	38 (0.2%)	19 (2.1%)	4 (0.1%)	2 (2.0%)	7 (0.2%)	6 (0.2%)
Family history of rheumatic diseases						
Yes (%)	546 (26.4%)	223 (24.6%)	115 (29.9%)	24 (24%)	89 (27.4%)	95 (27.2%)
No (%)	1027 (49.7%)	508 (56.1%)	202 (52.5%)	65 (65%)	167 (51.4%)	85 (24.4%)
Missing (%)	492 (23.8%)	175 (19.3%)	68 (17.7%)	11 (11%)	69 (21.2%)	169 (48.4%)
RA factor						

Positive (%)	1492 (72.3%)	641 (70.8%)	272 (70.7%)	72 (72%)	235 (72.3%)	272 (77.9%)
Negative (%)	523 (25.3%)	246 (27.2%)	101 (26.2%)	26 (26%)	79 (24.3%)	71 (20.3%)
Missing ^a (%)	50 (2.4%)	19 (2.1%)	12 (3.1%)	2 (2%)	11 (3.4%)	6 (1.7%)
ACPA						
Positive (%)	1141 (55.3%)	498 (55%)	222 (57.7%)	67 (67%)	209 (64.3%)	145 (41.6%)
Negative (%)	521 (25.2%)	252 (27.8%)	104 (27%)	26 (26%)	68 (20.9%)	71 (20.3%)
Missing ^a (%)	403 (19.5%)	156 (17.2%)	59 (15.3%)	7 (7%)	48 (14.8%)	133 (38.1%)
Mean DAS28crp (SD)	3.8 (1.2)	4.0 (1.1)	3.5 (1.2)	3.2 (1.3)	3.6 (1.3)	4.2 (1.1)
DAS28crp < 2.6	104 (5%)	28 (3.1%)	30 (7.8%)	19 (19%)	26 (8%)	1 (0.3%)
2.6 ≤ DAS28crp < 3.2	92 (4.5%)	44 (4.9%)	20 (5.2%)	3 (3%)	20 (6.2%)	5 (1.4%)
3.2 ≤ DAS28crp < 5.1	355 (17.2%)	193 (21.3%)	58 (15.1%)	24 (24%)	57 (17.5%)	23 (6.6%)
5.1 ≤ DAS28crp	99 (4.8%)	54 (6%)	17 (4.4%)	2 (2%)	18 (5.5%)	8 (2.3%)
Missing DAS28crp ^a (%)	1415 (68.5%)	587 (64.8%)	260 (67.5%)	52 (52%)	204 (62.8%)	312 (89.4%)
Mean DAS28esr (SD)	4.1 (1.4)	4.2 (1.3)	3.9 (1.4)	3.5 (1.6)	3.9 (1.4)	4.3 (1.5)
DAS28esr < 2.6	135 (6.5%)	35 (3.9%)	28 (7.3%)	15 (15%)	27 (8.3%)	30 (8.6%)
2.6 ≤ DAS28esr < 3.2	116 (5.6%)	49 (5.4%)	22 (5.7%)	3 (3.0%)	18 (5.5%)	24 (6.9%)
3.2 ≤ DAS28esr < 5.1	504 (24.4%)	225 (24.8%)	90 (23.4%)	23 (23.0%)	66 (20.3%)	100 (28.7%)
5.1 ≤ DAS28esr	230 (11.1%)	89 (9.8%)	30 (7.8%)	6 (6.0%)	29 (8.9%)	76 (21.8%)
Missing DAS28esr ^a (%)	1080 (52.3%)	508 (56.1%)	215 (55.8%)	53 (53.0%)	185 (56.9%)	119 (34.1%)
Mean RADAI score (SD)	4.0 (2.1)	4.2 (2)	3.7 (2.1)	3.5 (1.9)	3.5 (2.2)	4.2 (2.2)
Missing RADAI score (%)	1331 (64.4%)	626 (69.1%)	262 (68.1%)	72 (72.0%)	234 (72.2%)	137 (34.9%)
Median HAQ score (IQR)	1.0 (0.5-1.6)	0.9 (0.5-1.5)	0.8 (0.3-1.4)	0.5 (0.1-1.0)	0.9 (0.3-1.5)	1.4 (0.8-1.9)
Missing HAQ score (%)	1274 (61.7%)	595 (65.7%)	250 (64.9%)	64 (64.0%)	221 (68.2%)	144 (41.3%)
Median EuroQoL score (IQR)	68.7 (57-77.9)	68.7 (48.0-75.3)	69.0 (59.8-77.9)	69 (63.0-77.9)	68.7 (57.0-77.9)	66.2 (39.5-77.9)
Missing EuroQoL score (%)	1592 (77.0%)	674 (74.4%)	291 (75.6%)	64 (64.0%)	241 (74.4%)	322 (92.3%)
Mean SF12 PC score (SD)	35.7 (10.2)	35.6 (9.9)	37.1 (10.5)	41.8 (9.9)	37.5 (10.2)	33.4 (9.8)
Mean SF12 MC score (SD)	45.4 (11.8)	45.9 (11.7)	45.4 (12.2)	48.6 (9.2)	45.6 (11.4)	44.7 (12.2)
Missing SF 12 mental/physical component score (%)	1460 (70.7%)	692 (76.4%)	288 (74.8%)	76 (76.0%)	242 (74.7%)	162 (46.4%)
Median duration since last consultation [months] (IQR)	2.3 (0-7.4)	2.9 (0.2-7.7)	2.8 (0.3-7.6)	1.5 (0.1-6.8)	2.4 (0.1-8.1)	0 (0-4.1)
Prescriber						
University hospital (%)	388 (18.8%)	141 (15.6%)	54 (14%)	20 (20%)	69 (21.2%)	104 (29.8%)
Other hospital (%)	398 (19.3%)	183 (20.2%)	82 (21.3%)	15 (15%)	41 (12.6%)	77 (22.1%)
Office (%)	1265 (61.3%)	577 (63.7%)	246 (63.9%)	65 (65%)	214 (65.9%)	163 (46.7%)
Missing setting ^a (%)	14 (0.7%)	5 (0.6%)	3 (0.8%)	0 (0%)	1 (0.3%)	5 (1.4%)
Conventional synthetic DMARDs						
Methotrexate (%)	569 (27.6%)	239 (26.4%)	108 (28.1%)	27 (27%)	72 (22.2%)	123 (35.2%)
Leflunomid (%)	276 (13.4%)	125 (13.8%)	60 (15.6%)	5 (5%)	32 (9.9%)	54 (15.5%)
Sulfasalazin (%)	122 (5.9%)	57 (6.3%)	19 (4.9%)	1 (1%)	20 (6.2%)	25 (7.2%)
Chloroquine (%)	103 (5%)	46 (5.1%)	22 (5.7%)	4 (4%)	13 (4%)	18 (5.2%)
Azathioprine (%)	4 (0.2%)	2 (0.2%)	0 (0%)	0 (0%)	1 (0.3%)	1 (0.3%)
Cyclosporin A (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

Cyclophosphamid (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
csDMARDs (%)	887 (43%)	388 (42.8%)	172 (44.7%)	32 (32%)	115 (35.4%)	180 (51.6%)
Prednisone use (%)	759 (36.8%)	368 (40.6%)	149 (38.7%)	19 (19%)	100 (30.8%)	123 (35.2%)
Use of other pain/anti-inflammatory medication (%)	795 (38.5%)	421 (46.5%)	143 (37.1%)	45 (45%)	150 (46.2%)	36 (10.3%)
Health issues						
Myocardial infarction (%)	4 (0.2%)	2 (0.2%)	0 (0%)	1 (1.0%)	1 (0.3%)	0 (0%)
Ischemic heart disease (%)	138 (6.7%)	57 (6.3%)	28 (7.3%)	5 (5%)	23 (7.1%)	24 (6.9%)
Heart failure (%)	21 (1.0%)	8 (0.9%)	4 (1.0%)	2 (2.0%)	5 (1.5%)	2 (0.6%)
Other cardiovascular/heart disease (%)	21 (1.0%)	11 (1.2%)	5 (1.3%)	0 (0%)	5 (1.5%)	0 (0%)
Cardiac disorders (%)	168 (8.1%)	72 (8%)	35 (9.1%)	7 (7%)	28 (8.6%)	26 (7.5%)
Cerebrovascular disease (%)	59 (2.9%)	23 (2.5%)	10 (2.6%)	2 (2%)	8 (2.5%)	16 (4.6%)
Peripheral vascular disease (%)	11 (0.5%)	3 (0.3%)	0 (0%)	1 (1.0%)	5 (1.5%)	2 (0.6%)
Deep vein thrombosis, pulmonary embolism (%)	5 (0.2%)	2 (0.2%)	1 (0.3%)	0 (0%)	2 (0.6%)	0 (0%)
Hypertension (%)	605 (29.3%)	282 (31.1%)	112 (29.1%)	35 (35%)	102 (31.4%)	73 (20.9%)
Diabetes (type 1 or 2) (%)	130 (6.3%)	63 (7%)	21 (5.5%)	6 (6%)	20 (6.2%)	19 (5.4%)
Hyperlipidemia (%)	252 (12.2%)	126 (13.9%)	48 (12.5%)	22 (22%)	47 (14.5%)	8 (2.3%)
Metabolic disorder (%)	170 (8.2%)	86 (9.5%)	32 (8.3%)	11 (11%)	29 (8.9%)	12 (3.4%)
Cancer (%)	59 (2.9%)	25 (2.8%)	9 (2.3%)	4 (4%)	15 (4.6%)	6 (1.7%)
Infections (%)	142 (6.9%)	53 (5.9%)	41 (10.7%)	9 (9%)	29 (8.9%)	10 (2.9%)
Injection site reaction (%)	17 (0.8%)	2 (0.2%)	15 (3.9%)	0 (0%)	0 (0%)	0 (0%)
Thyroid disease (%)	36 (1.7%)	18 (2.0%)	8 (2.1%)	1 (1.0%)	9 (2.7%)	0 (0%)
Osteoarthritis or arthroplasty (%)	433 (20.8%)	202 (22.3%)	74 (19.2%)	25 (25%)	78 (24%)	54 (15.5%)
Degenerative spine disease or surgery (%)	466 (22.6%)	191 (21.1%)	77 (20%)	22 (22%)	70 (21.5%)	105 (30.1%)
Other orthopedic surgery (%)	411 (19.9%)	164 (18.1%)	74 (19.2%)	20 (20%)	69 (21.2%)	84 (24.1%)
Osteoporosis or fracture (%)	520 (25.2%)	214 (23.6%)	84 (21.8%)	25 (25%)	82 (25.2%)	137 (39.3%)
Fibromyalgia	347 (16.8%)	176 (19.4%)	67 (17.4%)	8 (8%)	41 (12.6%)	55 (15.8%)
Other auto-immune disease ^g (%)	79 (3.8%)	29 (3.2%)	15 (3.9%)	8 (8%)	21 (6.5%)	6 (1.7%)
Hematologic / immunologic diseases (%)	36 (1.7%)	12 (1.3%)	11 (2.8%)	2 (2.0%)	7 (2.1%)	4 (1.2%)
Pulmonary diseases (%)	159 (7.7%)	72 (8%)	31 (8.1%)	8 (8%)	29 (8.9%)	19 (5.4%)
Depression / Anxiety (%)	255 (12.4%)	102 (11.3%)	56 (14.6%)	8 (8%)	36 (11.1%)	53 (15.2%)
Alcohol/drug abuse (%)	28 (1.3%)	14 (1.5%)	5 (1.3%)	0 (0%)	5 (1.5%)	4 (1.2%)

ACPA: Anti-citrullinated protein antibodies; BMI: body mass index; CRP: C-reactive protein; DAS: disease activity score; DMARD: disease modifying anti-rheumatic drug, ESR: erythrocyte sedimentation rate; EUROQOL: *a standardized instrument for measuring generic health status (EQ-5D)*, HAQ: health assessment questionnaire; RA: rheumatoid arthritis; RADAI: Rheumatoid Arthritis Disease Activity Index; SF: Short form (health survey);

^a Missing categories were not used to estimate p-values per group.

^b low physical activity: <30 min daily walking/cycling or <60 min power sports per week

^c moderate physical activity: 30-60 min daily walking / cycling or 1-2 h power sports per week

^d high physical activity: >60 min daily walking cycling or >2 h power sports per week

^e family anamnesis includes rheumatoid arthritis, ankylosing spondylitis, psoriasis, psoriatic arthritis, chronic inflammatory bowel disease, and other spondyloarthropathies (e.g. reactive arthritis)

^f other auto-immune disease include Sjogren syndrome, systemic lupus erythematoses, and other autoimmune disease unspecified