

Supplementary data

Supplementary Table S1. Definitions of PsA cases, RA comparator-subjects and comorbidities

Case and comparator definitions	
PsA ¹	ICD10: L40.5, M07.0, M07.1, M07.3 ICD9: 696A ICD8: 696.00
RA	ICD10: M05.0, M05.1, M05.2, M05.3, M05.8, M05.9, M06.0, M06.2, M06.3, M06.8, M06.9, M12.3 ICD9: 714A, 714B, 714C, 714W, 719D ICD8: 712.10, 712.20, 712.38, 712.39
axSpA	ICD10: M45, M460, M461, M468, M469, M072 ¹ , M081 ICD9: 720A, 720B, 720C, 720W, 720X ICD8: 712.40, 713.10, 713.11, 713.12, 713.19, 726.99
Comorbidity definitions – main or secondary diagnoses from any department.	
Depression/anxiety	Prescription within 1 year before baseline, ACT-codes: N06A, N05AN
Diabetes	Diagnosis within 5 years before baseline, ICD10-codes: E10-E14, O24 Prescription of anti-diabetics within 1 year before baseline, ACT-code: A10
Cancer	Diagnosis within 5 years before baseline, ICD10-codes: Any tumor: C00-C75, Metastatic solid tumor: C76-80, Lymphoma: C81-C85, C88, C90, C96, Leukemia: C91-C95
Congestive heart disease	Diagnosis within 5 years before baseline, ICD10-codes: I11.0, I13.0, I13.2, I50
Chronic lung disease	Diagnosis within 5 years before baseline, ICD10-codes: J41-J44, J84.1, J84.9
Myocardial infarction	Diagnosis within 5 years before baseline, ICD10-codes: I20.0, I21, I22
1) M072 was not included in the PsA case definition, but actively excluded to avoid PsA patients with a dominant axial phenotype.	

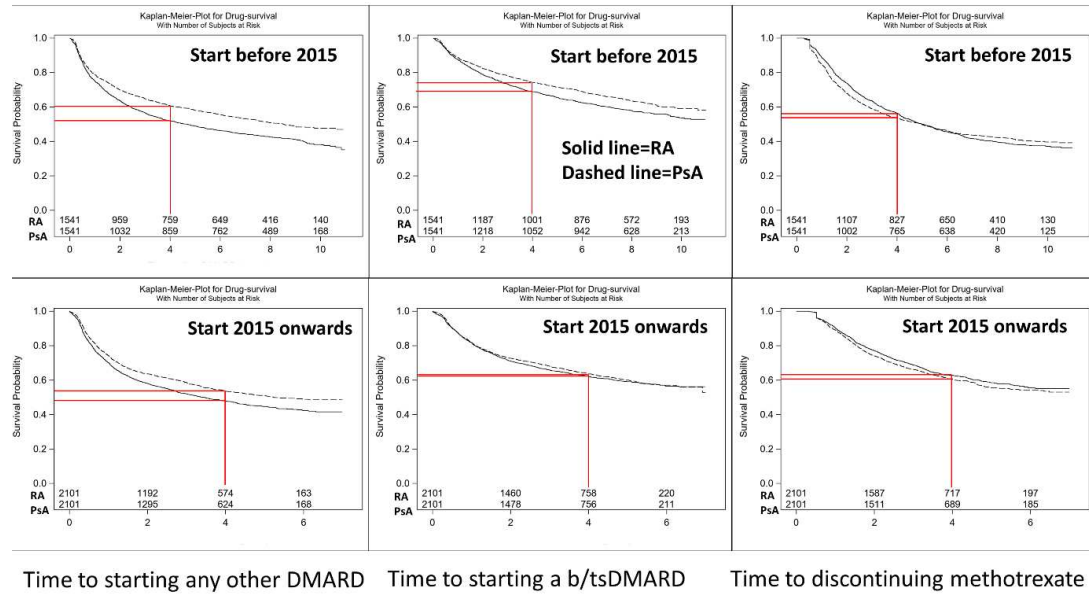
Supplementary Table S2. Comparison of matched and non-matched PsA cases (= the PsA cases for whom no suitable RA match could be found).

Baseline	PsA matched	PsA non-matched
	N=3642	N=283
Index year, median	2015	2016
Age, mean (sd)	54.2 (14.1)	35.9 (10.1)
Sex, N (%) men	1813 (50)	277 (98)
Days from first PsA/RA diagnosis to start of methotrexate, median (IQR)	5 (46)	6 (63)
Education		
<10, N (%)	704 (19)	33 (12)
10 to 12, N (%)	1890 (52)	153 (54)
>12, N (%)	1040 (29)	87 (31)
Diabetes, N (%)	255 (7.0)	9 (3.2)
Chronic lung disease, N (%)	50 (1.4)	1 (0.4)
Myocardial infarction, N (%)	58 (1.6)	0
Cancer, N (%)	178 (4.9)	0
Congestive heart disease, N (%)	7 (0.2)	1 (0.4)
Depression/anxiety, N (%)	562 (15.4)	30 (10.6)
DAS28-CRP, mean (sd)	4.2 (1.3)	3.9 (0.9)
DAS28, mean (sd)	4.1 (1.1)	3.9 (1.1)
Patient-reported pain, mean (sd)	53 (23)	50 (21)
Patient-reported global health, mean (sd)	51 (24)	51 (20)
Evaluator's assessment of disease activity		
Remission, N (%)	7 (1)	0
Low, N (%)	221 (19)	18 (19)
Moderate, N (%)	720 (63)	66 (69)
High, N (%)	195 (17)	12 (13)
Maximal, N(%)	7 (1)	0
CRP, median (IQR)	7 (15)	10 (18)
Swollen 28-joint count, mean (sd)	4.2 (4.3)	3.2 (3.1)
Tender 28-joint count, mean (sd)	5.3 (5.1)	4.3 (3.8)

Supplementary Table S3. Probability of not having started another DMARD and not having stopped methotrexate therapy, at one and two years after methotrexate initiation, calculated by taking censoring into account (i.e. survival distribution estimates). Numbers of patients included in the analyses, PsA/RA: 3642/3642.

		Survival distribution estimates (95%CI)	
		At one year after start of methotrexate	At two years after start of methotrexate
Not having started any other DMARD	PsA	0.76 (0.75-0.78)	0.66 (0.65-0.68)
	RA	0.72 (0.71-0.74)	0.60 (0.59-0.62)
Not having started specifically a b/tsDMARD	PsA	0.85 (0.84-0.86)	0.77 (0.75-0.78)
	RA	0.84 (0.83-0.85)	0.74 (0.73-0.76)
Not having stopped methotrexate	PsA	0.87 (0.86-0.88)	0.71 (0.70-0.73)
	RA	0.90 (0.89-0.91)	0.76 (0.74-0.77)

Supplementary Figure S1. Follow-up stratified by calendar time at median start year (2015) for methotrexate.



Supplementary Table S4. Comparison of baseline characteristics of the subsets of patients included in the response analyses and the whole cohort.

Baseline	All matched cases/comparator-subjects		Only PsA/RA with a MTX start date and baseline visit in SRQ	
	PsA=3642	RA=3642	PsA=1174	RA=2135
Index year, median	2015	2015	2016	2015
Age, mean (sd)	54.2 (14.1)	54.5 (14.4)	53.7 (14.1)	54.4 (14.5)
Sex, N (%) men	1813 (50)	1813 (50)	598 (51)	1065 (50)
Days from first PsA/RA diagnosis to start of methotrexate, median (IQR)	5 (46)	1 (15)	3 (37)	1 (12)
Education				
<10, N (%)	704 (19)	837 (23)	209 (18)	477 (22)
10 to 12, N (%)	1890 (52)	1765 (48)	596 (51)	1033 (48)
>12, N (%)	1040 (29)	1025 (28)	367 (31)	621 (29)
missing, N	8 (0)	15 (0)	2 (0)	4 (0)
Diabetes, N (%)	255 (7.0)	265 (7.3)	77 (6.6)	132 (6.2)
Chronic lung disease, N (%)	50 (1.4)	78 (2.1)	16 (1.4)	38 (1.8)
Myocardial infarction, N (%)	58 (1.6)	59 (1.6)	18 (1.5)	36 (1.7)
Cancer, N (%)	178 (4.9)	178 (4.9)	58 (4.9)	103 (4.8)
Congestive heart disease, N (%)	7 (0.2)	9 (0.3)	1 (0.1)	5 (0.2)
Depression, N (%)	562 (15.4)	441 (12.1)	185 (15.8)	243 (11.4)