SUPPLEMENTARY MATERIALS
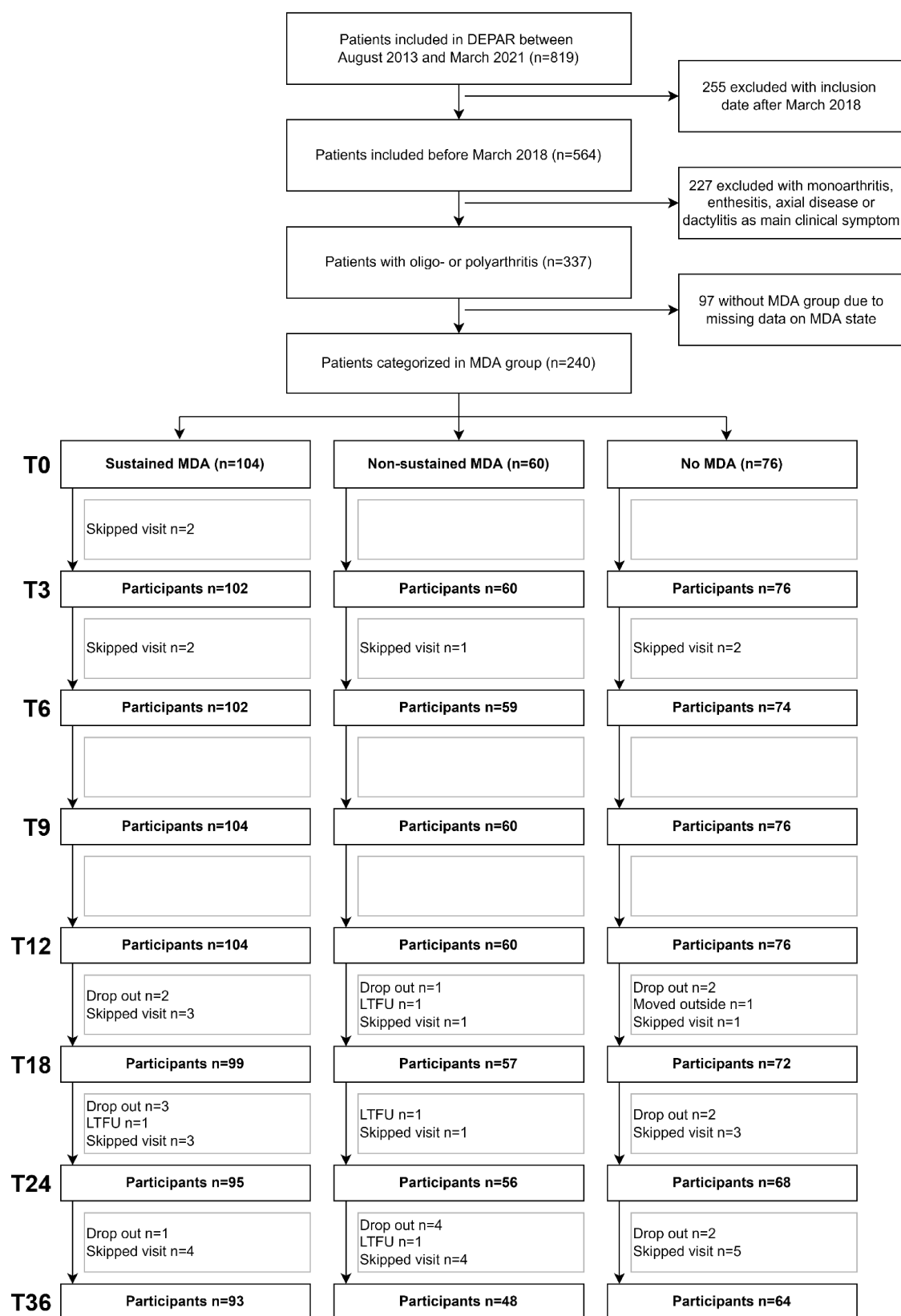
Supplementary Figure S1. Flowchart of minimal disease activity groups

1

Supplemental material

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Results are shown as number of patients. Drop-out rates were 6% [6/104] for sustained MDA, 8% [5/60] for non-sustained MDA and 8% [6/76] for no MDA. LTFU: loss to follow-up; MDA: minimal disease activity.

Supplementary Table S1. Baseline characteristics of study patients not categorized vs categorized in a MDA group

	No MDA group assigned (n=97)	MDA group assigned (n=240)	ANOVA p-value
Demographic characteristics			
Age (years), mean ± SD	47.8 ± 15	52.8 ± 14	**0.003**
Sex (male), n (%)	50 (52)	122 (51)	0.906
Symptom duration (months), median (IQR)	9.5 (3-34)	9.4 (4-31)	0.628
Disease activity			
Swollen joint count (66), median (IQR)	3 (1-5)	3 (2-6)	0.091
Tender joint count (68), median (IQR)	4 (2-9)	4 (2-9)	0.830
Psoriasis, n (%)	81 (84)	205 (85)	
BSA in case of psoriasis, median (IQR)	2.5 (1-4)	3 (1.5-5.5)	0.280
Enthesitis, n (%)	38 (39)	93 (39)	
LEI in case of enthesitis, median (IQR)	2 (1-3)	2 (1-3)	0.595
HAQ, median (IQR)	0.88 (0.44-1.25)	0.63 (0.38-1.00)	**0.037**
Global (VAS), median (IQR)	51 (35-72)	46 (23-65)	**0.049**
Pain (VAS), median (IQR)	62 (41-78)	48 (23-69)	**0.001**
CRP (mg/L), median (IQR)	6 (1-11)	5 (1-12)	0.910

P < 0.05 was considered significant and is shown in bold. Patients not categorized in a group due to missing data are compared to those with an assigned MDA group. MDA: minimal disease activity; BSA: Body Surface Area; LEI: Leeds Enthesitis Index; HAQ: Health Assessment Questionnaire; VAS: visual analogue scale; CRP: C-reactive protein.

Supplementary Table S2. Complete case analysis of estimated mean differences in patient-reported outcomes during follow-up (1-3 years) for minimal disease activity groups

	Sustained MDA (n=104)	Non-sustained MDA (n=60)			No MDA (n=76)		
		β	(95% CI)	Bonferroni corrected *P*-value[a]	β	(95% CI)	Bonferroni corrected *P*-value[a]
Pain (VAS)	Ref	15.80	(10.71, 20.89)	**<0.001**	35.38	(30.57, 40.18)	**<0.001**
Fatigue (BRAF-MDQ)	Ref	7.74	(3.99, 11.50)	**0.001**	17.74	(14.22, 21.27)	**<0.001**
Functional ability (HAQ-DI)	Ref	0.31	(0.19, 0.43)	**<0.001**	0.81	(0.70, 0.92)	**<0.001**
Health status (EQ-5D-5L)	Ref	-0.08	(-0.13, -0.03)	**0.046**	-0.24	(-0.29, -0.20)	**<0.001**
PCS (SF-36)	Ref	-6.39	(-8.40, -4.39)	**<0.001**	-13.40	(-15.31, -11.49)	**<0.001**
MCS (SF-36)	Ref	-3.30	(-6.02, -0.59)	0.33	-8.02	(-10.59, -5.44)	**<0.001**
Anxiety (HADS)	Ref	1.46	(0.35, 2.57)	0.19	2.96	(1.89, 4.02)	**<0.001**
Depression (HADS)	Ref	1.15	(0.11, 2.20)	0.58	3.74	(2.74, 4.75)	**<0.001**

[a]n=19. β shows the estimated mean difference comparing the sustained MDA group with the other two groups over the course of 1-3 years of follow-up. All analyses were adjusted for age, sex and SJC. P < 0.05 was considered significant and is shown in bold. MDA: minimal disease activity; VAS: Visual Analogue Scale; BRAF-MDQ: Bristol Rheumatoid Arthritis Fatigue-Multidimensional Questionnaire; HAQ-DI: Health Assessment Questionnaire–Disability Index; EQ-5D-5L: European Quality of life 5-Dimensions 5-Levels, SF-36: 36-item Short Form Health Survey (PCS: Physical Component Summary score, MCS: Mental Component Summary score), HADS: Hospital Anxiety and Depression Scale.

2

Supplementary Table S3. Patient-reported outcomes after 2 and 3 years categorized by MDA group

PROs	Time	Sustained MDA (n=104)	Non-sustained MDA (n=60)	No MDA (n=76)
Pain (VAS) *MCID ≥10 [1]*	T24	8 (2-21)	18 (5-34)	44 (25-71)
	T36	6 (2-23)	30 (10-38)	47 (25-70)
Fatigue (BRAF-MDQ) *MCID ≥7.4 [2]*	T24	15.1 (10.6)	18.0 (10.6)	28.1 (15.1)
	T36	13.7 (8.2)	17.3 (10.8)	26.4 (13.7)
Functional ability (HAQ-DI) *MCID ≥0.35 [3]*	T24	0.13 (0.00-0.38)	0.44 (0.25-0.81)	1.13 (0.75-1.50)
	T36	0.06 (0.00-0.38)	0.44 (0.13-0.75)	1.06 (0.75-1.38)
Health status (EQ-5D-5L) *MCID ≥0.07 [4]*	T24	0.87 (0.07)	0.83 (0.07)	0.64 (0.27)
	T36	0.87 (0.09)	0.82 (0.09)	0.67 (0.22)
PCS (SF-36) *MCID ≥2.5-5 [5]*	T24	48.8 (6.9)	44.7 (7.3)	36.0 (9.1)
	T36	49.6 (6.2)	44.6 (7.0)	36.4 (8.3)
MCS (SF-36) *MCID ≥2.5-5 [5]*	T24	51.4 (8.2)	49.2 (9.2)	44.7 (10.7)
	T36	53.1 (6.5)	51.4 (8.2)	45.7 (10.9)
Anxiety score (HADS) *MCID ≥1.7 [6]*	T24	3.1 (3.0)	4.2 (4.0)	5.9 (4.4)
	T36	3.2 (2.4)	3.7 (3.8)	5.5 (4.5)
Depression score (HADS) *MCID ≥1.7 [6]*	T24	2.2 (2.7)	2.5 (2.3)	6.0 (4.9)
	T36	1.7 (2.0)	2.7 (2.4)	4.8 (4.5)

Results are shown as mean (standard deviation) or median (interquartile range). MDA: minimal disease activity; VAS: Visual Analogue Scale; BRAF-MDQ: Bristol Rheumatoid Arthritis Fatigue-Multidimensional Questionnaire; HAQ-DI: Health Assessment Questionnaire–Disability Index; EQ-5D-5L: European Quality of life 5-Dimensions 5-Levels, SF-36: 36-item Short Form Health Survey (PCS: Physical Component Summary score, MCS: Mental Component Summary score), HADS: Hospital Anxiety and Depression Scale. MCID: minimum clinical important difference.

Supplementary Table S4. Residual disease activity of MDA groups at 1, 2 and 3 years

	1 year			2 years			3 years		
	Sustained MDA (n=104)	Non-sustained MDA (n=60)	No MDA (n=76)	Sustained MDA (n=95)	Non-sustained MDA (n=56)	No MDA (n=68)	Sustained MDA (n=93)	Non-sustained MDA (n=48)	No MDA (n=64)
SJC >1	11 (11)	17 (28)	29 (38)	11 (12)	11 (20)	20 (31)	15 (17)	7 (17)	23 (39)
TJC >1	14 (13)	24 (40)	56 (74)	10 (11)	21 (38)	38 (58)	9 (10)	11 (26)	33 (56)
BSA >3%	13 (13)	17 (29)	22 (29)	14 (16)	9 (16)	15 (23)	6 (7)	5 (12)	17 (29)
LEI >1	1 (1)	5 (8)	24 (32)	1 (1)	3 (5)	18 (27)	1 (1)	2 (5)	18 (31)
HAQ >0.5	5 (5)	29 (50)	55 (80)	8 (9)	15 (29)	43 (75)	10 (11)	12 (29)	45 (78)
Global (VAS) >20	15 (14)	45 (76)	72 (96)	22 (23)	28 (53)	48 (76)	20 (22)	25 (60)	48 (83)
Pain (VAS) >15	20 (21)	46 (79)	72 (96)	28 (33)	27 (51)	57 (90)	27 (32)	25 (64)	51 (89)
n (%) of patients with residual disease activity. SJC: swollen joint count, TJC: tender joint count, BSA: Body Surface Area, LEI: Leeds Enthesitis Index, HAQ: Health Assessment Questionnaire, VAS: Visual Analogue Scale, MDA: Minimal Disease Activity									