

Supplemental Table 1. Additional characteristics of participants by flare status.

Variable Mean (SD) or n (%) unless otherwise stated	All (N=849)	Flare Classification					
		Patient		MD (N=718)		DAS28 (N=515)	
		Yes (n=201)	No (n=648)	Yes (n=233)	No (n=485)	Yes (n=84)	No (n=431)
Sociodemographic Characteristics							
Symptom duration at enrolment (months)	5.8 (3.3)	5.9 (3.5)	5.8 (3.2)	6.0 (3.4)	5.8 (3.2)	5.7 (3.0)	5.6 (3.2)
RA Characteristics							
RF+ / CCP+	550 (78%)	140 (79%)	410 (78%)	148 (77%)	327 (81%)	62 (83%)	277 (77%)
Related Conditions							
RA only	97 (97%)	184 (95%)	613 (97%)	218 (97%)	458 (96%)	81 (96%)	409 (96%)
RA + fibromyalgia	20 (2%)	9 (5%)	11 (2%)	5 (2%)	13 (3%)	2 (2%)	13 (3%)
RA + osteoarthritis	7 (1%)	1 (1%)	6 (1%)	1 (0%)	5 (1%)	1 (1%)	3 (1%)
RADAI Joint Score (0-48)	6.9 (7.9)	10.3 (10.0)	5.9 (6.8)	8.1 (8.4)	5.6 (7.0)	5.9 (6.9)	7.4 (8.6)

Sociodemographic characteristics are at enrolment; RA characteristics are at second of paired visits. At second visit, 718 patients had a second MD rating of flare and 515 had a DAS28-ESR at both visits; missing DAS28 values are due to missing ESR.

Supplemental Table 2: Relationships[†] among OMERACT RA flare domains, patient-reported tender and swollen joint counts and patient global (N=849).

	Patient Global	Pain	Function	Fatigue	Participation	Stiffness	Tender Joints	Swollen Joints
Patient Global	1	0.88	0.78	0.66	0.76	0.80	0.61	0.51
Pain	0.88	1	0.84	0.71	0.81	0.84	0.62	0.51
Function	0.78	0.84	1	0.73	0.90	0.81	0.59	0.46
Fatigue	0.66	0.71	0.73	1	0.75	0.70	0.52	0.39
Participation	0.76	0.81	0.90	0.75	1	0.80	0.56	0.44
Stiffness	0.80	0.84	0.81	0.70	0.80	1	0.62	0.53
Patient tender joints*	0.61	0.62	0.59	0.52	0.56	0.62	1	0.61
Patient swollen joints*	0.51	0.51	0.46	0.39	0.44	0.53	0.61	1

[†]Spearman's rho; *from a total of 40

Supplemental Figure 1.

OMERACT PRELIMINARY FLARE ASSESSMENT QUESTIONNAIRE

(Draft version 1.0)

1. Since your last visit, is your rheumatoid arthritis (RA): (please check box)

much worse – worse – somewhat worse – the same – somewhat better – better – much better

2. Are you having a flare (flare-up) of rheumatoid arthritis at this time?

Yes No
If no, please go to section 2

3. If yes, please circle a number to indicate the severity of your flare during the last week.

No Flare 0 1 2 3 4 5 6 7 8 9 10 Extremely Bad

4. If yes, how long has this flare of your RA been going on?

1-3 days 4-7 days 8-14 days more than 14 days

Section 2: Describe your rheumatoid arthritis

1. PAIN:

Circle the number that best describes the pain you felt due to your rheumatoid arthritis during the last week:

No Pain 0 1 2 3 4 5 6 7 8 9 10 Extreme Pain

2. FUNCTION:

Circle the number that best describes the difficulty you had in doing physical activities (such as using your hands, walking or running, dressing, preparing meals, etc.) due to your rheumatoid arthritis during the last week:

No Difficulty 0 1 2 3 4 5 6 7 8 9 10 Extreme Difficulty

3. FATIGUE:

Circle the number that best describes how much fatigue you felt due to your rheumatoid arthritis during the last week:

No Fatigue 0 1 2 3 4 5 6 7 8 9 10 Extremely Exhausted

4. STIFFNESS:

Circle the number that best describes the stiffness (all over or in your joints) you felt due to your rheumatoid arthritis during the last week:

No Stiffness 0 1 2 3 4 5 6 7 8 9 10 Extreme Stiffness

5. PARTICIPATION:

Considering how active your rheumatoid arthritis has been, please circle the number that best describes how much difficulty you have had during the last week, when taking part in activities such as work, family life, social events that are **typical** for you:

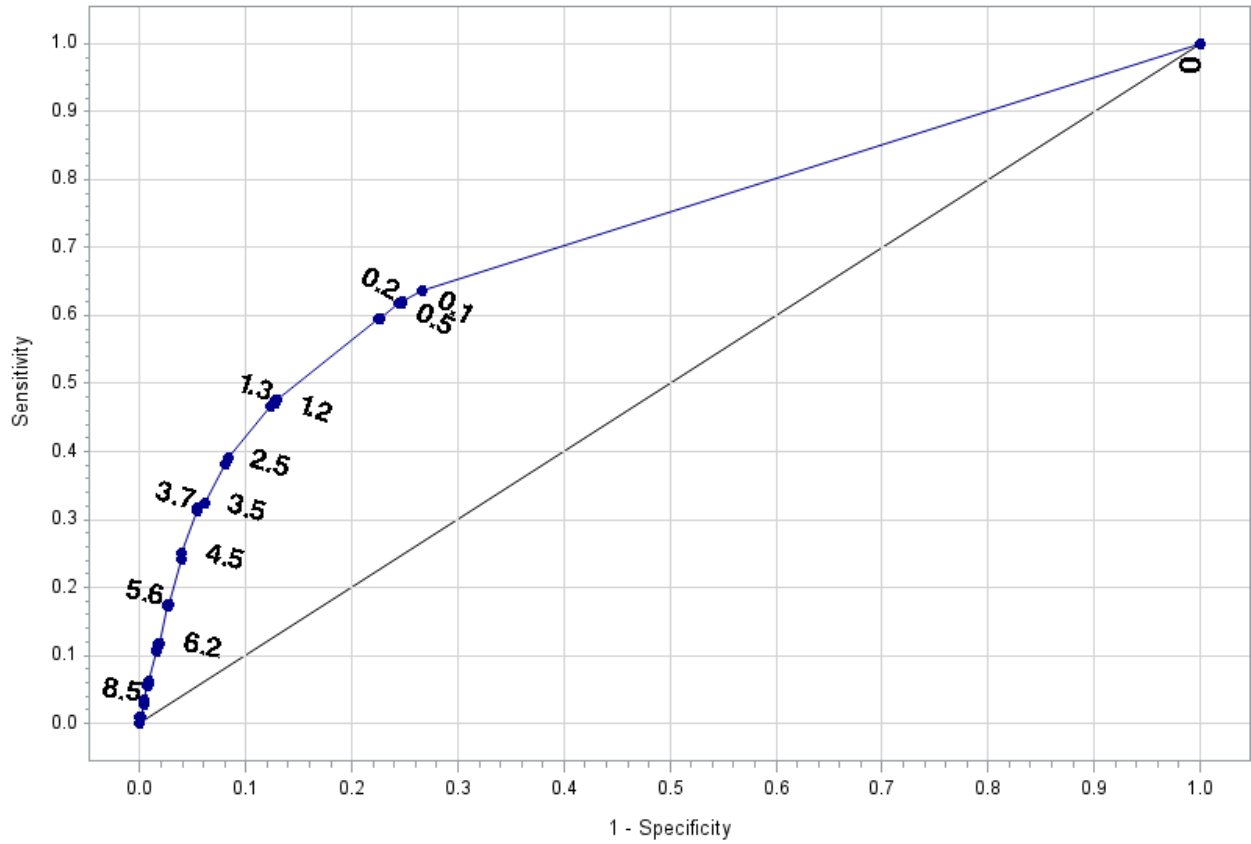
No Difficulty 0 1 2 3 4 5 6 7 8 9 10 Extreme Difficulty

6. COPING/MANAGING YOUR LIFE:

Considering your rheumatoid arthritis overall, please circle how well you have coped (managed, dealt with, made do) with your disease during the last week:

Very Well 0 1 2 3 4 5 6 7 8 9 10 Very Poorly

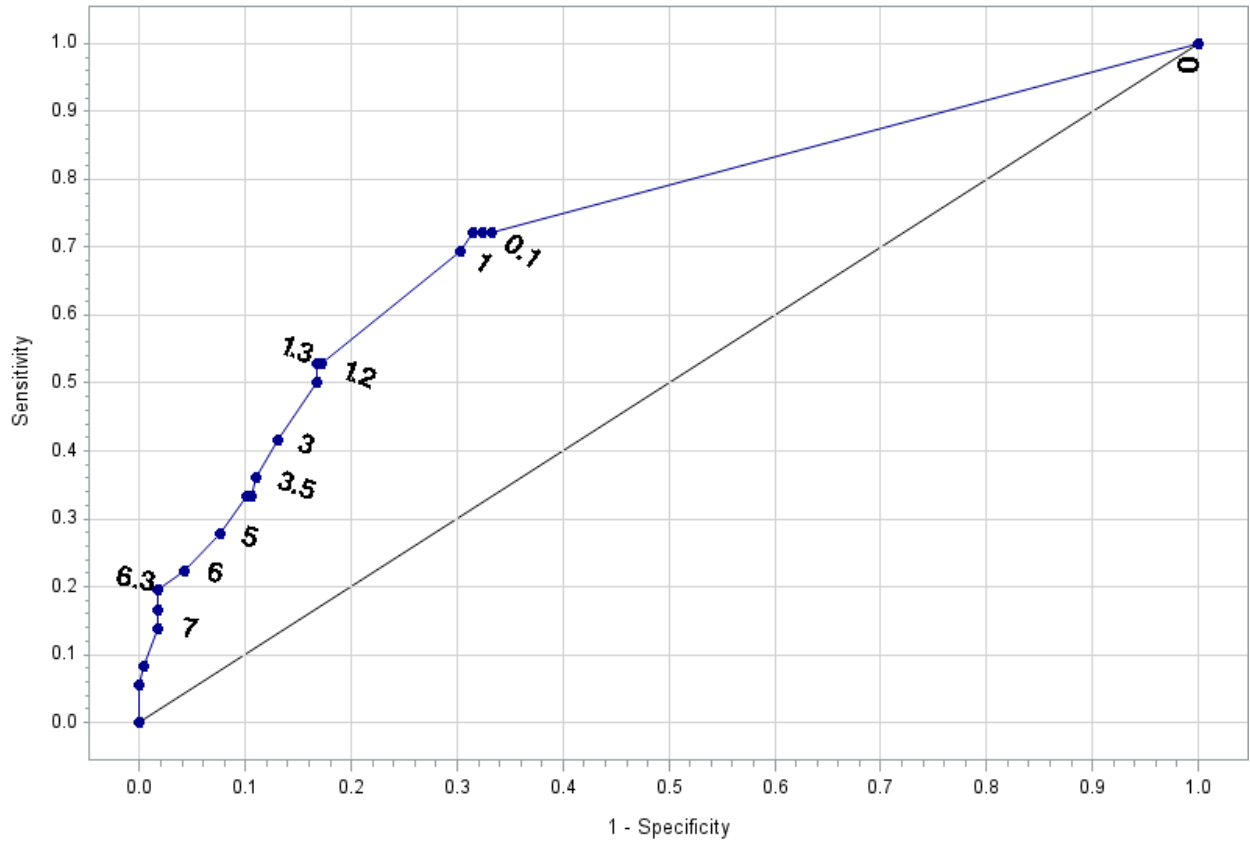
ROC Plot
Approximate area under curve = 0.716



Threshold	Sensitivity	Specificity	Distance from Perfect Marker
0.0	0.63580	0.73426	0.45084
0.1	0.62037	0.7524	0.45324
0.2	0.61728	0.7524	0.45583
0.3	0.61728	0.7556	0.45409
0.5	0.59568	0.77375	0.46332
0.7	0.59568	0.77481	0.46280
1.0	0.47531	0.87086	0.54035

Supplemental Figure 2a. Thresholds for MD classification of RA Flare compared to patient report of flare for 1261 patients in CATCH with flare data between Nov 2011 and May 2013.

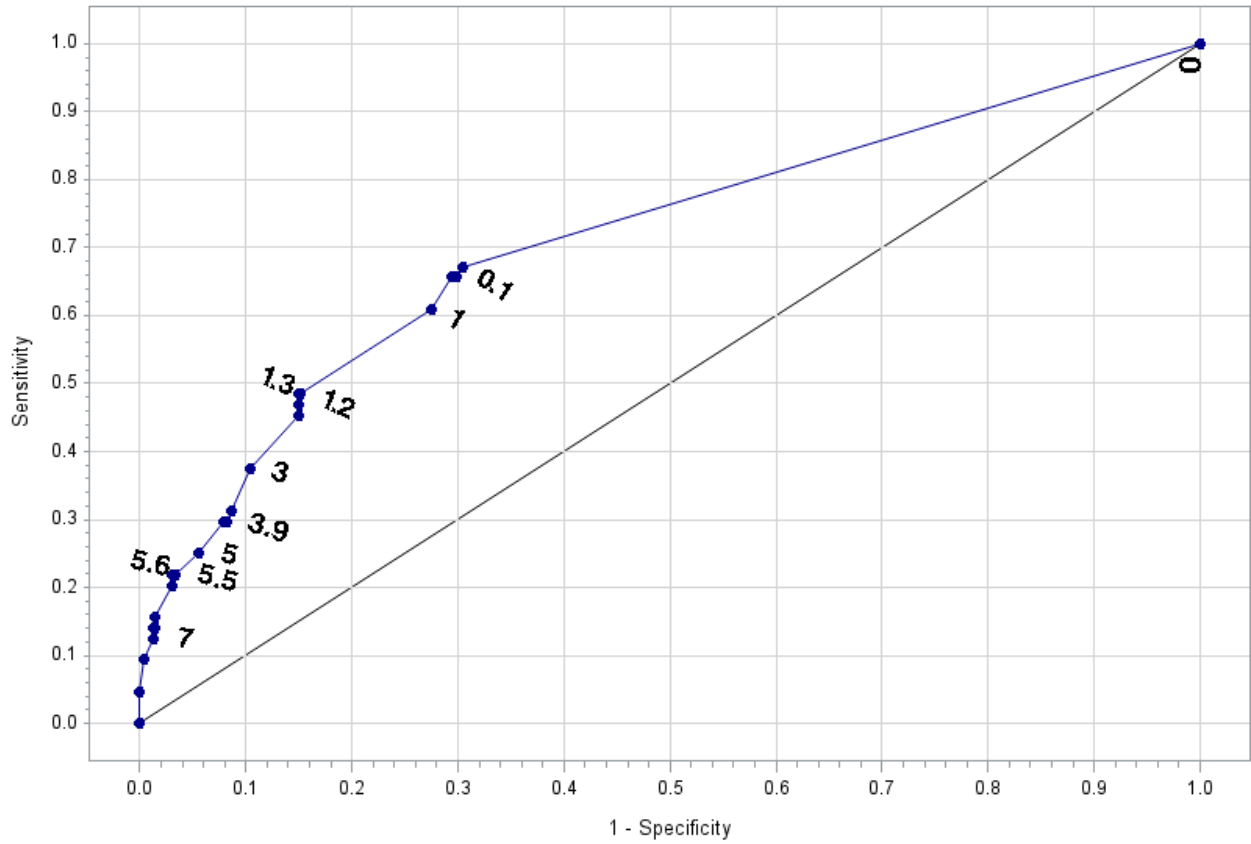
ROC Plot
Approximate area under curve = 0.730



Threshold	Sensitivity	Specificity	Distance from Perfect Marker
0	0.72222	0.66807	0.43283
0.1	0.72222	0.67647	0.42642
0.3	0.72222	0.68487	0.42008
0.5	0.69444	0.69748	0.42998
1	0.52778	0.82773	0.50266

Supplemental Figure 2b. Thresholds for MD classification of RA Flare compared to DAS28 1.2/0.6 in 274 patients with flare data between Nov 2011 and May 2013.

ROC Plot
Approximate area under curve = 0.713



Threshold	Sensitivity	Specificity	Distance from Perfect Marker
0	0.67188	0.69592	0.44736
0.1	0.65625	0.70204	0.45491
0.3	0.65625	0.70612	0.45225
0.5	0.60938	0.72449	0.47801
1	0.48438	0.84898	0.53729

Figure 2c. Thresholds for MD classification of RA Flare compared to DAS28 1.2/0.6 criterion in 554 CATCH patients with MD flare and DAS28 values between Nov 2011 and May 2013.