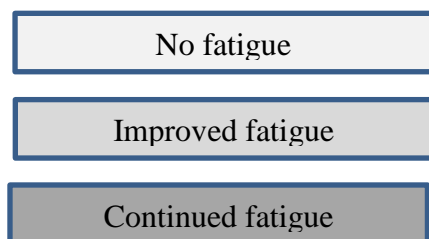


Supplementary table 1 The longitudinal development of clinically significant fatigue across 6 visits after start of biologic DMARD treatment.

Longitudinal trajectories of fatigue	Number	Added%	Cum. %
RAID fatigue ≤ 3 at 4 out of 5 visits, and ≤ 3 at 1 st	61	29.33%	29.33%
RAID fatigue ≥ 4 at 1 st visit, thereafter ≤ 3	18	8.68%	37.98%
RAID fatigue ≥ 4 at 1 st and 2 nd visit, thereafter ≤ 3	3	1.44%	39.42%
RAID fatigue ≥ 4 at 1 st , 2 nd and 3 rd visit, thereafter ≤ 3	9	4.33%	43.75%
RAID fatigue ≥ 4 at 1 st , 2 nd , 3 rd and 4 th visit, thereafter ≤ 3	3	1.43%	45.18%
RAID fatigue ≥ 4 1 st , 2 nd , 3 rd , 4 th and 5 th visit, thereafter ≤ 3	5	2.40%	47.58%
RAID fatigue ≥ 4 at 5 out of 6 visits, but ≥ 4 at 6 th visit	48	23.09%	70.67%
No discernible pattern	34	16.35%	87.02%
RAID fatigue increasing	3	1.44%	88.46%
RAID fatigue missing after 2 nd or 3 rd visit.	24	11.54%	100%
Total	208	100%	100%

RAID; Rheumatoid Arthritis Impact of Disease (RAID) questionnaire
 Clinically significant fatigue = RAID fatigue ≥ 4



Supplementary table 2 Mixed model marginal likelihood estimates for disease activity and patient reported outcome measures across fatigue trajectories

	No fatigue vs improved fatigue	No fatigue vs continued fatigue	Improved fatigue vs continued fatigue
RA disease activity			
Swollen joints (28)	0.28 (-1.68-2.24)	0.28 (-1.98-1.43)	-0.73 (-2.68-1.23)
CRP (mg/L)	-2.81 (-6.83-1.22)	-1.22 (-4.85-2.41)	1.84 (-3.42-7.11)
Calprotectin (mg/L)	-0.22 (-0.66-0.22)	0.05 (-0.27- 0.36)	0.24(-0.16-0.65)
Sum PD	0.10 (-4.38-4.57)	1.90 (-1.74-5.53)	1.16 (-3.06-5.39)
Sum BM	1.80 (-4.79-8.40)	3.38 (-2.38-9.14)	0.60 (-5.88-7.07)
Psychosocial			
Patient global assessment VAS	-9.94 (-15.71- -4.17)*	-34.24 (-40.42- -28.06)**	-24.11 (-32.46-15.77)**
Tender joints (28)	-0.51 (-1.36- -0.34)	-5.23 (-6.98- -3.48)**	-4.76 (-7.11- -2.40)**
RAID sleep	-1.82 (-2.43- -1.21)**	-4.42 (-5.08- -3.75)**	-2.65 (-3.62-1.68)**
RAID fatigue	-1.67 (-2.09-1.24)**	-5.08 (-5.57- -4.58)**	-3.43 (-4.08- -2.78)**
Widespread pain	-1.37 (-2.33-0.41)*	-3.41 (-4.43- -2.38)**	-2.09 (-3.46- -0.71)*
HADS anxiety#	-0.04 (-0.83-0.75)	-3.64 (-4.94- -2.35)**	-3.64 (-5.47- -1.82)**
HADS depression#	-0.10 (-0.60-0.39)	-3.45 (-4.51-2.39)**	-3.44 (-4.91- -1.98)**
Pain Catastrophizing	-0.91 (-1.31- -0.50)**	-1.73 (-2.12- -1.33)**	-0.83 (-1.38- 0.28)*

Models adjusted for age, gender and time * $p \leq 0.05$ ** $p \leq 0.001$

No fatigue: Fatigue ≤ 3 at baseline and at 4/5 visits. Improved fatigue: Fatigue ≥ 4 at baseline, but ≤ 3 at 6- and 12-months visit. Continued: Fatigue ≥ 4 at 5/6 visits

PD; power Doppler, GS; grey scale, VAS; Visual analogue scale, HADS; Hospital anxiety and depression scale.