

Supplementary file 2. Sensitivity analyses

Table 1a. Scores of the 5 patient-reported outcomes after 1 year of RA treatment used to assign patients with an early and persistent treatment response to a cluster (n=140)

PRO scores at year 1	Concordant to disease activity cluster		Dominant fatigue cluster		Dominant pain and fatigue cluster	
	n=109 ^a (77.9%)	n=118^b (84.3%)	n=13 ^a (9.3%)	n=13^b (9.3%)	n=18 ^a (12.9%)	n=9^b (6.4%)
Pain (0-100)	7.3±7.5	9.4±10.5	14.5±8.9	14.5±8.9	45.1±14.6	55.7±10.9
Fatigue (0-100)	10.0±9.9	11.8±11.8	69.6±14.3	69.6±14.3	42.4±14.0	51.0±11.7
Physical functioning (0-3)	0.1±0.1	0.1±0.2	0.2±0.3	0.2±0.3	0.3±0.3	0.2±0.3
RA-related quality of life (0-30)	3.9±4.9	4.1±4.9	6.2±2.4	6.2±2.4	5.6±5.0	5.3±5.1
Sleep quality (0-21)	5.0±3.0	5.0±3.0	6.0±1.9	6.1±1.9	5.4±2.6	5.3±2.3

Note. Values reported are mean± standard deviation. ^a Cluster analysis based on k-means clustering; ^b Sensitivity analyses by hierarchical clustering using the median method with squared Euclidean distance. RA: Rheumatoid arthritis. Higher scores indicate worse pain, worse fatigue, more functional loss, worse health-related quality of life and worse sleep quality. Early and persistent response was defined as a DAS28CRP<2.6 at week 16, sustained between week 16 and week 52. PRO: Patient-reported outcome.

Table 1b. Plotting membership between k-means and hierarchical clustering

		k-means		
		CL1 n=109	CL2 n=18	CL3 n=13
hierarchical	CL1 n=118	92.5%	7.5%	0.0%
	CL2 n=9	0.0%	100.0%	0.0%
	CL3 n=13	0.0%	0.0%	100.0%
Total		100.0%	100.0%	100.0%

Table 2a. Plotting membership between k-means (imputed) and k-means (non-imputed)

		k-means imputed		
		CL1 n=87	CL2 n=12	CL3 n=10
k-means not imputed	CL1 n=87	100%	0.0%	0.0%
	CL2 n=11	0.0%	100.0%	0.0%
	CL3 n=11	0.0%	9.1%	90.9%
Total		100.0%	100.0%	100.0%

CL1: concordant to disease activity cluster; CL2: dominant pain and fatigue cluster; CL3: dominant fatigue cluster.

Table 2b. Plotting membership between hierarchical-median (imputed) and hierarchical-median (non-imputed)

		hierarchical-median imputed		
		CL1 n=93	CL2 n=5	CL3 n=11
hierarchical-median not imputed	CL1 n=92	98.9%	0.0%	0.0%
	CL2 n=6	1.1%	100.0%	0.0%
	CL3 n=11	0.0%	0.0%	100.0%
Total		100.0%	100.0%	100.0%

CL1: concordant to disease activity cluster; CL2: dominant pain and fatigue cluster; CL3: dominant fatigue cluster.