

SUPPLEMENTARY FILE

Supplementary table 1: Treatment steps during 2 years of follow up in patients with SHS progression n=50

Patient	Progression score	Treatment group	RF	ACPA	Anti-CarP	DAS 8 mths	Treatment step	DAS 12 mths	Treatment step	DAS 16 mths	Treatment step	DAS 20 mths	Treatment step	DAS 24 mths
1	0.5	ER	-	+	-	0.59	MTX tapered to 0	2.04	Restart MTX	1.69	MTX monotherapy	2.03	Restart prednisone	0.59
2	0.5	Arm 2	missing	-	-	3.16	Increase dose adalimumab	2.42	MTX + adalimumab	ND	ND	1.82	MTX + adalimumab	1.15
3	0.5	ER	-	-	-	0.79	Restart prednisone	1.90	Prednisone tapered to 0	3.10	Randomization : start adalimumab	1.02	Adalimumab tapered to 0	ND
4	0.5	ER	-	-	missing	0.95	MTX tapered to 0	1.18	DFR	0.96	DFR	0.99	DFR	ND
5	0.5	Arm 1	-	-	-	1.66	DMARD combination	2.22	DMARD combination tapered to 0, switch to adalimumab	2.41	Increase dose adalimumab	2.54	Step unclear	1.96
6	0.5	Arm 1	-	-	+	1.36	DMARD combination	1.33	DMARD combination tapered to 0	1.35	MTX decrease dose	1.59	MTX decrease dose	1.19
7	0.5	ER	+	+	-	0.47	MTX tapered to 0	1.54	DFR	4.54	Restart MTX	1.16	MTX monotherapy	1.14
8	0.5	ER	+	+	+	0.67	MTX tapered to 0	1.82	Restart MTX	1.70	Restart prednisone	1.75	Randosmization: start adalimumab	1.55
9	0.5	ER	+	+	+	0.25	MTX tapered to 0	0.26	DFR	0.03	DFR	0.27	DFR	1.01
10	0.5	OP	+	+	-	3.23	Start SSZ monotherapy	2.44	SSZ was stopped short after 8 mths: DFR	1.35	DFR	2.74	DF no remission	2.04
11	0.5	ER	+	+	+	0.99	MTX tapered to 0	1.73	MTX restart	1.79	Restart prednisone	1.03	Prednisone tapered to 0	1.44
12	0.5	ER	+	+	-	1.07	MTX decreased dose	1.30	MTX monotherapy	1.25	MTX decreased dose	0.56	MTX decreased dose	1.32
13	0.5	Arm 2	+	+	-	2.11	Increase dose adalimumab	2.01	MTX + adalimumab	1.59	MTX + adalimumab	0.90	Decrease dose adalimumab	1.88
14	0.5	Arm 1	-	-	-	3.07	DMARD	1.97	MTX +	3.11	Increase dose	3.32	Stop	2.37

							combination tapered to 0, switch to adalimumab		adalimumab		adalimumab		adalimumab, MTX monotherapy	
15	0.5	ER	-	-	-	0.79	MTX tapered to 0	1.56	Restart MTX	1.52	MTX monotherapy	0.62	MTX monotherapy	0.54
16	0.5	ER	-	-	-	1.39	MTX tapered to 0	1.59	DFR	0.62	DFR	0.76	DFR	1.11
17	0.5	ER	-	-	missing	0.24	MTX tapered to 0	0.78	DFR	1.21	DFR	1.28	DFR	1.50
18	0.5	ER	+	+	missing	1.16	Restart prednisone	0.43	Prednisone tapered to 0	1.50	MTX tapered to 0	3.20	Restart MTX + prednisone and start HCQ	0.75
19	1	OP	+	+	-	0.95	MTX decreased dose	1.58	MTX decreased dose	1.19	MTX decreased dose	1.01	MTX tapered to 0	1.06
20	1	ER	-	-	-	0.78	MTX tapered to 0	3.66	Restart MTX	1.74	Restart prednisone	0.88	Prednisone tapered to 0	0.88
21	1	Arm 2	+	+	+	1.84	Increase dose adalimumab	1.71	Decrease dose adalimumab	2.44	TAR: Stop adalimumab + prednisone bridging	2.40	TAR: start etanercept + MTX + prednisone	1.70
22	1	ER	+	+	+	0.82	MTX tapered to 0	3.30	Restart MTX	1.87	MTX monotherapy	2.73	MTX monotherapy	1.79
23	1	Arm 1	+	+	-	0.99	Combination therapy tapered to 0	3.73	Restart MTX + prednisone	2.46	Switch to adalimumab	2.07	Increase dose adalimumab	1.09
24	1	Arm 1	-	-	-	1.86	Combination therapy	1.93	Combination tapered to MTX monotherapy	2.41	MTX monotherapy	1.54	MTX tapered to 0	2.43
25	1	ER	+	+	+	0.80	MTX tapered to 0	0.81	DFR	4.00	Restart MTX + prednisone	0.59	Prednisone tapered to 0	0.73
26	1	ER	+	+	+	2.27	Restart MTX	0.96	MTX monotherapy	0.86	MTX tapered to 0	1.62	DF no remission	2.90
27	1	ER	+	+	-	0.61	MTX tapered to 0	0.61	DFR	1.34	DFR	1.20	DFR	0.73
28	1	Arm 1	-	-	-	2.39	DMARD combination tapered to 0, switch to adalimumab	2.20	Increase dose adalimumab	2.08	MTX + adalimumab tapered to 0	2.08	DFR	1.21
29	2	Arm 1	missing	+	missing	2.21	DMARD combination tapered to 0, switch to	1.04	MTX + adalimumab. Extra visit: increase dose	1.60	MTX + adalimumab	1.77	MTX + adalimumab	2.04

30	2	ER	+	+	+	2.14	adalimumab Switch to SSZ, continue prednisone	1.37	adalimumab Prednisone tapered to 0	1.07	SSZ monotherapy	1.94	Increase dose SSZ	2.41
31	2	Arm 2	+	+	+	1.58	MTX + adalimumab	2.30	Increase dose adalimumab	0.35	MTX + adalimumab	0.27	MTX + adalimumab	0.71
32	2.5	Arm 1	+	+	+	3.75	DMARD combination tapered to 0, switch to adalimumab	2.48	Increase dose adalimumab	2.36	Stop adalimumab, start abatacept	1.05	MTX + abatacept	3.35
33	2.5	ER	+	+	+	0.88	MTX tapered to 0	1.37	DFR	1.65	DF no remission	0.78	DFR	0.99
34	2.5	ER	+	+	+	2.09	Restart prednisone	2.09	MTX monotherapy	2.22	MTX tapered to 0	3.00	DF no remission	1.82
35	2.5	Arm 1	+	+	+	2.67	DMARD combination tapered to 0, switch to adalimumab	2.28	Adalimumab stopped due to AE	2.09	MTX + adalimumab	1.75	MTX + adalimumab	2.56
36	3	ER	-	-	-	0.77	MTX tapered to 0	0.23	DFR	0.83	Restart MTX	1.56	MTX monotherapy	1.34
37	3	ER	+	+	+	2.81	Restart prednisone. Extra visit: randomization: start adalimumab	3.01	Increase dose adalimumab	3.73	Stop adalimumab	3.07	TAR: MTX + start tocilizumab	4.22
38	3	OP	-	+	+	1.02	Restart MTX	2.94	MTX monotherapy	1.78	Restart prednisone	2.28	Prednisone tapered to 0	2.43
39	3	ER	+	+	+	2.32	Restart prednisone	0.97	Prednisone tapered to 0	1.16	MTX tapered to 0	2.10	Restart MTX	1.73
40	3.5	ER	-	-	-	2.92	Restart prednisone	1.45	Prednisone tapered to 0	1.04	MTX tapered to 0	1.62	DFR	0.95
41	4	ER	+	+	+	1.71	Restart Prednisone	1.19	Prednisone tapered to 0	1.44	MTX tapered to 0	1.40	DFR	1.37
42	4	ER	+	+	missing	1.14	MTX tapered to 0	0.46	DFR	0.46	DFR	0.46	DFR	0.36
43	5	ER	missing	+	+	1.76	Restart prednisone	0.55	Prednisone tapered to 0	1.70	Randomization arm 2: start adalimumab	0.46	Adalimumab tapered to 0. MTX continued	0.38
44	5	ER	+	+	+	1.73	Restart prednisone	1.79	Prednisone tapered to 0	2.67	Randomization arm 2: start adalimumab	ND	Extra visit: increase dose adalimumab. TAR: start	3.48

													etanercept + prednisone	
45	5	ER	+	+	missing	2.11	MTX stopped due to AE: DF	1.88	Restart MTX + prednisone	0.85	MTX continued. Prednisone tapered to 0	0.69	MTX monotherapy	0.91
46	5	ER	-	-	-	0.94	MTX tapered to 0	0.94	DFR	0.75	DFR	0.89	DFR	0.89
47	7.5	Arm 2	+	+	-	1.71	Increase dose adalimumab	1.23	Decrease dose adalimumab. Extra visit: increase dose adalimumab	3.48	TAR: start etanercept + MTX	0.80	TAR: start etanercept + MTX	0.86
48	8	ER	+	+	+	1.00	MTX tapered to 0	1.04	DFR	0.89	DFR	1.64	DF no remission	0.26
49	10.5	ER	+	+	-	1.56	Restart prednisone	0.93	Prednisone tapererd to 0	1.45	MTX tapered to 0	1.90	Restart MTX	1.80
50	22	ER	+	+	+	4.04	Extra visit after 4 mths: randomization: start adalimumab. OP: persistent activity. Start DMARD combination.	3.81	Prednisone + MTX + etanercept	2.52	Prednisone + MTX + etanercept	2.55	Prednisone + MTX + etanercept	2.11

DAS: disease activity score; mths: months; ER: early DAS remission; OP: out of protocol; RF: rheumatoid factor; ACPA: anti-citrullinated protein antibodies; Anti-CarP: anti-carbamylated protein antibodies; +: positive; -: negative; MTX: methotrexate; DMARD: disease modifying antirheumatic drugs; SSZ: sulphasalazine; HCQ: hydroxychloroquine; DFR: drug-free remission; AE: adverse event; TAR: treatment according to rheumatologist; ND: not done.