

Supplementary Table 1 – Association of time-adjusted mean prednisolone with damage accrual

	Unadjusted odds ratio for damage accrual (Δ SDI>0)			Adjusted* odds ratio for damage accrual (Δ SDI>0)		
	OR	(95% CI)	P-value	OR	(95% CI)	P-value
<u>Gender</u>						
Female	1					
Male	1.38	(0.57, 3.35)	0.5			
<u>Age at recruitment (years)</u>						
<40	1					
\geq 40 & \leq 59	0.96	(0.47, 1.95)	0.9			
\geq 60	1.29	(0.51, 3.22)	0.6			
<u>Ethnicity</u>						
Caucasian	1			1		
Asian	0.44	(0.22, 0.89)	0.02	0.28	(0.12, 0.63)	P<0.01
Other	0.81	(0.18, 3.58)	0.8	0.77	(0.15, 3.95)	0.75
<u>Current smoker?</u>						
No	1					
Yes	1.33	(0.56, 3.18)	0.5			
<u>Baseline SDI</u>						
SDI = 0	1			1		
SDI \geq 1	3.12	(1.58, 6.17)	p<0.01	2.81	(1.32, 5.96)	p<0.01
<u>Time adjusted mean SLEDAI (AMS)</u>						
AMS \leq 4	1			1		
AMS > 4	3.18	(1.63, 6.22)	p<0.01	2.16	(0.93, 5.96)	0.07
<u>Time-adjusted mean prednisolone (mg/day)</u>						
1 st quartile (0, 0)	1			1		
2 nd quartile (0.04, 4.40)	2.21	(0.69, 6.71)	0.16	2.48	(0.76, 8.13)	0.13
3 rd quartile (4.45, 7.77)	5.56	(1.92, 16.1)	p<0.01	5.63	(1.71, 18.58)	p<0.01
4 th quartile (7.82, 40.0)	5.83	(2.01, 16.9)	p<0.01	5.02	(1.42, 17.75)	0.01

*Odds ratios were adjusted for ethnicity, baseline SDI, AMS and time-adjusted mean prednisolone

Supplementary Table 2. Association of time-adjusted mean prednisolone with GC-SDI and nonGC-SDI damage accrual

	GC-SDI accrual (n=14)						nonGC-SDI accrual (n=50)					
	Unadjusted odds ratio for Δ GC-SDI>0			Adjusted* odds ratio for Δ GC-SDI>0			Unadjusted odds ratio for Δ nonGC-SDI>0			Adjusted** odds ratio for Δ nonGC-SDI>0		
	OR	(95% CI)	P-value	OR	(95% CI)	P-value	OR	(95% CI)	P-value	OR	(95% CI)	P-value
<u>Ethnicity</u>												
Caucasian	1			1			1			1		
Asian	0.38	(0.10, 1.45)	0.16	0.35	(0.09, 1.40)	0.14	0.47	(0.22, 0.97)	0.04	0.29	(0.12, 0.68)	p<0.01
Other	1.13	(0.13, 10.2)	0.9	1.34	(0.14, 13.09)	0.80	1.02	(0.23, 4.54)	0.9	1.00	(0.19, 5.29)	1.00
<u>Baseline SDI</u>												
SDI = 0	1			1			1			1		
SDI \geq 1	2.64	(0.79, 8.79)	0.11	2.42	(0.70, 8.43)	0.16	3.23	(1.58, 6.58)	p<0.01	2.88	(1.32, 6.32)	p<0.01
<u>Time-adjusted mean SLEDAI (AMS)</u>												
AMS \leq 4	1			1			1			1		
AMS > 4	1.35	(0.45, 4.04)	0.6	0.72	(0.19, 2.72)	0.62	3.93	(1.94, 7.97)	p<0.01	2.88	(1.21, 6.89)	0.02
<u>Time-adjusted mean prednisolone (mg/day)</u>												
1 st quartile (0, 0)	1			1			1			1		
2 nd quartile (0.04, 4.40)	1.03	(0.14, 7.66)	0.9	1.24	(0.16, 9.57)	0.84	2.4	(0.74, 7.79)	0.14	2.50	(0.71, 8.79)	0.15
3 rd quartile (4.45, 7.77)	2.11	(0.36, 12.2)	0.4	2.81	(0.43, 18.36)	0.28	4.61	(1.49, 14.2)	p<0.01	3.81	(1.08, 13.46)	0.04
4 th quartile (7.82, 40.0)	3.44	(0.65, 18.2)	0.14	4.94	(0.73, 33.50)	0.10	6.51	(2.12, 20.0)	p<0.01	4.57	(1.22, 17.10)	0.02

*Odds ratios were adjusted for ethnicity, baseline SDI, AMS and time-adjusted mean prednisolone

**Odds ratios were adjusted for ethnicity, baseline SDI, AMS and time-adjusted mean prednisolone

Supplementary Table 3 – Domain specific damage accrual, stratified by glucocorticoid exposure

SDI domains	Exposed to glucocorticoids ever?		P-value*
	No (n=41) n (%)	Yes (n=121) n (%)	
Ocular damage	4 (10%)	6 (5%)	0.3
Neuropsychological damage	4 (10%)	27 (22%)	0.08
Renal damage	3 (7%)	14 (12%)	0.4
Pulmonary damage	1 (2%)	10 (8%)	0.2
Cardiovascular damage	6 (15%)	15 (12%)	0.7
Perivascular damage	4 (10%)	10 (8%)	0.8
Gastrointestinal damage	1 (2%)	4 (3%)	0.8
Musculoskeletal damage	8 (20%)	36 (30%)	0.2
Skin damage	4 (10%)	13 (11%)	0.8
Other damage	3 (7%)	21 (17%)	0.12

*P-values were calculated using Chi-squared tests for the difference in proportions

Supplementary Table 4 – Patient characteristics characterized by glucocorticoid use

	Glucocorticoid Use						P-value
	None (n=41)		Oral PNL only (n=110)		Oral + IV PNL (n=11)		
	Median	[IQR] (range)	Median	[IQR] (range)	Median	[IQR] (range)	
Age at diagnosis (years)	38	[30, 52] (14, 69)	34	[27, 44] (10, 69)	28	[23, 49] (19, 56)	0.17
Age at recruitment (years)	47.3	[36.5, 55.3] (23.5, 78.5)	41.7	[34, 53.6] (22.6, 76.8)	39.3	[30.4, 55.3] (22.9, 56.6)	0.23
Duration of observation (years)	3.5	[1.7, 4.5] (1, 5.7)	3.6	[2, 5] (0, 6.3)	4.9	[4.2, 5.5] (2, 5.6)	0.03
Number of clinic visits	10	[5, 13] (2, 23)	15	[10, 24] (2, 37)	30	[21, 41] (7, 47)	p<0.01
Cumulative prednisolone (g)	0	[0, 0] (0, 0)	6.4	[3.5, 9.4] (0.2, 50.2)	21.2	[16.0, 31.8] (14.8, 56.6)	p<0.01
Number of ACR criteria	5	[4, 5] (4, 8)	5	[4, 6] (4, 9)	6	[5, 7] (4, 8)	0.06
Baseline SLEDAI	2	[0, 4] (0, 16)	4	[2, 8] (0, 22)	7	[0, 14] (0, 18)	p<0.01
Time adjusted mean SLEDAI (AMS)	1.6	[0.8, 3.1] (0, 6)	4.1	[2.4, 5.6] (0, 13.9)	6.7	[4.4, 8.4] (1.5, 11.3)	p<0.01
Time adjusted mean PGA	0.3	[0.1, 0.4] (0, 1.1)	0.5	[0.3, 0.7] (0, 1.9)	1	[0.8, 1.2] (0.5, 1.4)	p<0.01
Baseline SDI	0	[0, 1] (0, 3)	1	[0, 1] (0, 4)	1	[0, 3] (0, 4)	0.6
Final SDI	0	[0, 1] (0, 4)	1	[0, 2] (0, 9)	2	[1, 5] (0, 12)	0.019
	n	(%)	n	(%)	n	(%)	
Female	35	(85%)	93	(85%)	10	(91%)	0.8
<u>Ethnicity</u>							0.14
Caucasians	29	(71%)	56	(51%)	4	(36%)	
Asians	10	(24%)	49	(45%)	6	(55%)	
Other	2	(5%)	5	(5%)	1	(9%)	
Current smoker	6	(21%)	18	(21%)	2	(20%)	0.9
Hydroxychloroquine ever	38	(93%)	104	(95%)	11	(100%)	0.6

Other immunosuppressant ever	13 (32%)	97 (88%)	11 (100%)	p<0.01
No. of patients with AMS > 4	4 (10%)	57 (52%)	9 (82%)	p<0.01
No. of patients with Δ SDI > 0	6 (15%)	41 (37%)	10 (91%)	p<0.01
No. of patients with Δ GC-SDI > 0	2 (5%)	11 (10%)	1 (9%)	0.6