

Supplementary Material:

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Table S1. Study recruitment by center

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Table S1: Study recruitment by centre

	Screened	Qualified	Consented and Enrolled
1 - Ottawa	47	36	21
2 - London	42	33	31
3 - Saskatoon	33	28	14
4 - St. Michael's	120	87	34
5 - St. Paul's BC	99	84	40
6 - Calgary	34	25	9
7 - Winnipeg	5	4	4
8 - Edmonton	40	31	18
9 - Hamilton	12	21	10
10 - UHN	113	64	23
11 - Kingston	50	12	5
12 - VGH	60	53	17
13 - CHUM	40	31	9
14 - CHUQ, Quebec	36	29	13
15 - Maisonneuve-Rosemount	18	13	10
16- MUHC	40	29	11
Totals	789	580	269

Table S2: Baseline characteristics by immunosuppressant prescription during follow-up

	Continued immunosuppressants other than prednisone alone (n=174)	Continued prednisone only (n=54)	Discontinued all immunosuppressants (n=41)
Mean age (SD)	51.9 (15.5)	54.4 (13.9)	47.9 (16.5)
Male, n (%)	116 (66.7)	31 (57.4)	23 (56.1)
Race, n (%)			
White	107 (61.5)	32 (59.3)	28 (68.3)
Asian	14 (8.0)	7 (13.0)	4 (9.8)
Black	17 (9.8)	6 (11.1)	2 (4.9)
Other	16 (9.2)	2 (3.7)	5 (12.2)
Indian sub-continent	11 (6.3)	5 (9.3)	-
Aboriginal	9 (5.2)	2 (3.7)	2 (4.9)
Donor source, n (%)			
Deceased	119 (68.4)	43 (79.6)	29 (70.7)
Living	55 (31.6)	11 (20.4)	12 (29.3)
Duration of allograft survival before transplant failed			
Median (IQR), years	10.9 (5.1 to 16.1)	9.9 (5.9 to 14.8)	10.9 (2.6 to 16.2)
Transplant duration			
< 1 year	10 (5.7)	-	5 (12.2)
> 1 year	164 (94.3)	54 (100)	36 (87.8)
Transplant year			
Before 1990	10(5.7)	3 (5.6)	3 (7.3)
1990-2000	62(35.6)	16 (29.6)	14 (34.1)
2001-2010	78(44.8)	30 (55.6)	18 (43.9)
2011-2016	24(13.8)	5 (9.3)	6 (14.6)
Primary cause of allograft failure, n (%)			
Interstitial fibrosis and tubular atrophy (chronic allograft nephropathy)	46 (26.4)	18 (33.3)	9 (22.0)
Other	36 (20.7)	8 (14.8)	7 (17.1)
Chronic antibody mediated rejection/transplant glomerulopathy	35 (20.1)	10 (18.5)	4 (9.8)
Recurrent Glomerulonephritis	18 (10.3)	4 (7.4)	2 (4.9)

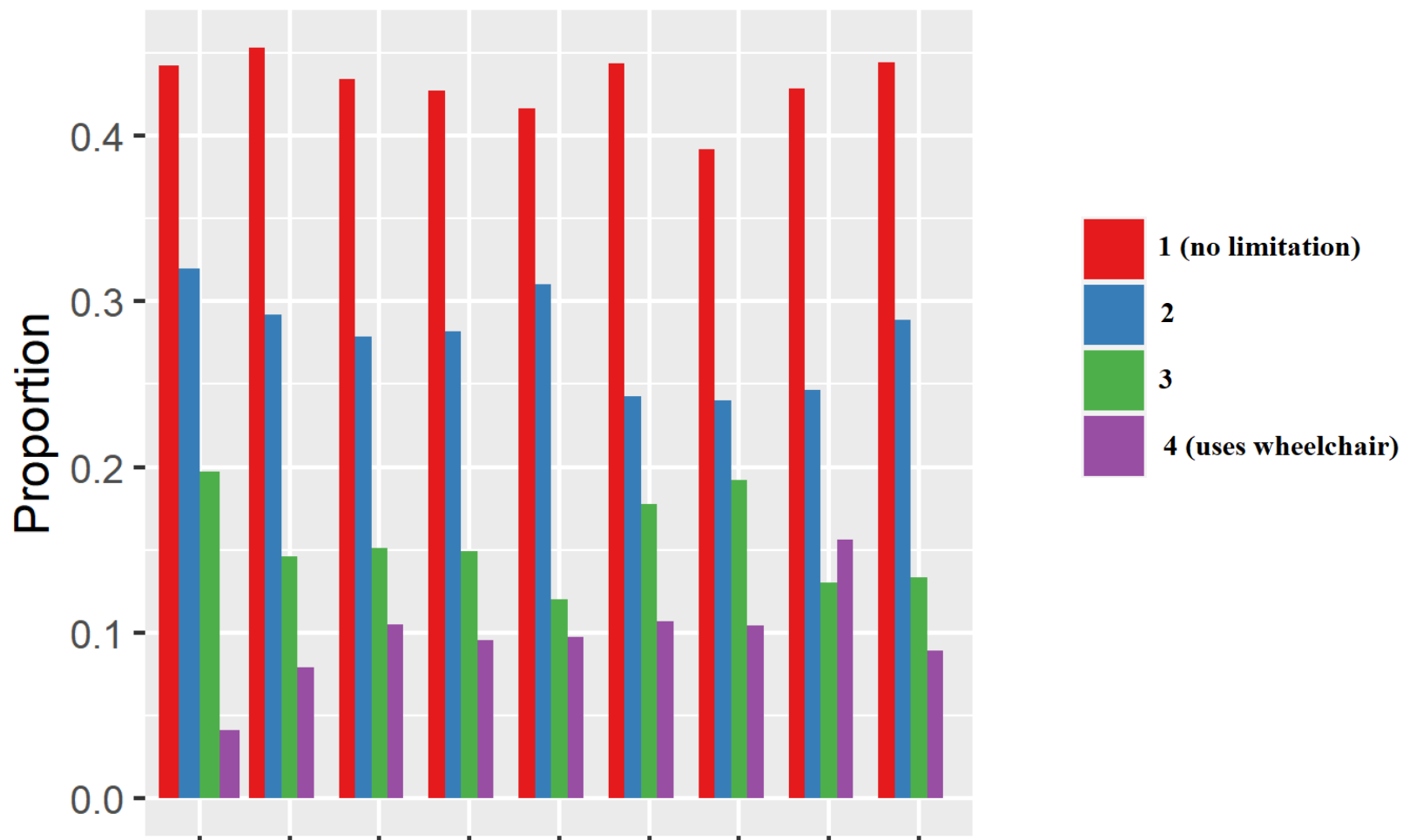
Acute T-cell mediated rejection	16 (9.2)	2 (3.7)	5 (12.2)
Unknown	9 (5.2)	4 (7.4)	3 (7.3)
Primary non-function	4 (2.3)	2 (3.7)	2 (4.9)
Acute antibody mediated rejection	3 (1.7)	-	4 (9.8)
Polyoma nephropathy	-	4 (7.4)	2 (4.9)
Calcineurin inhibitor toxicity	3 (1.7)	1 (1.9)	-
Arterial or venous thrombosis	1 (0.6)	-	2 (4.9)
De novo Glomerulonephritis	2 (1.1)	-	1 (2.4)
Obstruction	1 (0.6)	1 (1.9)	-
*Current immunosuppressive medications, n (%)			
Prednisone	154 (88.5)	53 (98.1)	26 (63.4)
Tacrolimus	106 (60.9)	21 (38.9)	15 (36.6)
Mycophenolate mofetil	57 (32.8)	11 (20.4)	8 (19.5)
Cyclosporine	34 (19.5)	10 (18.5)	9 (22.0)
Mycophenolate sodium	26 (14.9)	2 (3.7)	3 (7.3)
Azathioprine	18 (10.3)	6 (11.1)	3 (7.3)
Sirolimus	8 (4.6)	1 (1.9)	3 (7.3)
Other	3 (1.7)	-	-
Treatment for acute rejection anytime prior to allograft failure, n (%)			
Yes	80 (46.0)	19 (35.2)	17 (41.5)
No	68 (39.1)	22 (40.7)	19 (46.3)
Unknown	26 (14.9)	13 (24.1)	5 (12.2)
Co-Morbid Conditions, n (%)			
Cancer	38 (21.8)	11 (20.4)	9 (22.0)
Cardiovascular disease	50 (28.7)	15 (27.8)	7 (17.1)
Diabetes mellitus	54 (31.0)	25 (46.3)	8 (19.5)
Smoking, n (%)			
Current	26 (14.9)	6 (11.1)	7 (17.1)
Former	50 (28.7)	18 (33.3)	15 (36.6)
Never	98 (56.3)	30 (55.6)	19 (46.3)

Cause of end stage kidney disease, n (%)			
Other	69 (39.7)	15 (27.8)	11 (26.8)
Glomerulonephritis	47 (27.0)	17 (31.5)	17 (41.5)
Diabetes mellitus	25 (14.4)	10 (18.5)	3 (7.3)
Polycystic kidney disease	14 (8.0)	7 (13.0)	3 (7.3)
Unknown	11 (6.3)	3 (5.6)	4 (9.8)
Hypertension	8 (4.6)	2 (3.7)	3 (7.3)
Laboratory Parameters			
Hemoglobin, g/L	95.8 (16.6)	95.1 (17.6)	96.2 (17.6)
PTH, pmol/L	69.9 (111.3)	50.6 (58.8)	65.5 (68.8)
Serum Albumin, g/L	34 (5.5)	32.7 (5.6)	33.1 (6.7)
Calcium (total uncorrected), mmol/L	2.2 (0.2)	2.2 (0.3)	2.1 (0.2)
Phosphorus, mmol/L	1.7 (0.6)	1.5 (0.5)	1.6 (0.5)

Table S3. Cox multivariable model for the outcome of death

	Hazard Ratio (95% confidence interval)
Continued immunosuppression (reference discontinued all immunosuppression or continued prednisone only)	0.40 (0.17 -0.93)
Age (per year older)	1.04 (1.01-1.06)
Diabetes (reference no diabetes)	2.22 (1.06 -4.64)
Time from transplantation to allograft failure	1.00 (1.00-1.00)

Figure S1: Proportion of patients with functional status over a 36-month follow up period



Months	0	1	3	6	12	18	24	30	36
N†	269	267	258	241	216	169	125	77	45

† Represents the number of patients with functional status in the interval between follow-up periods and not exact dates.

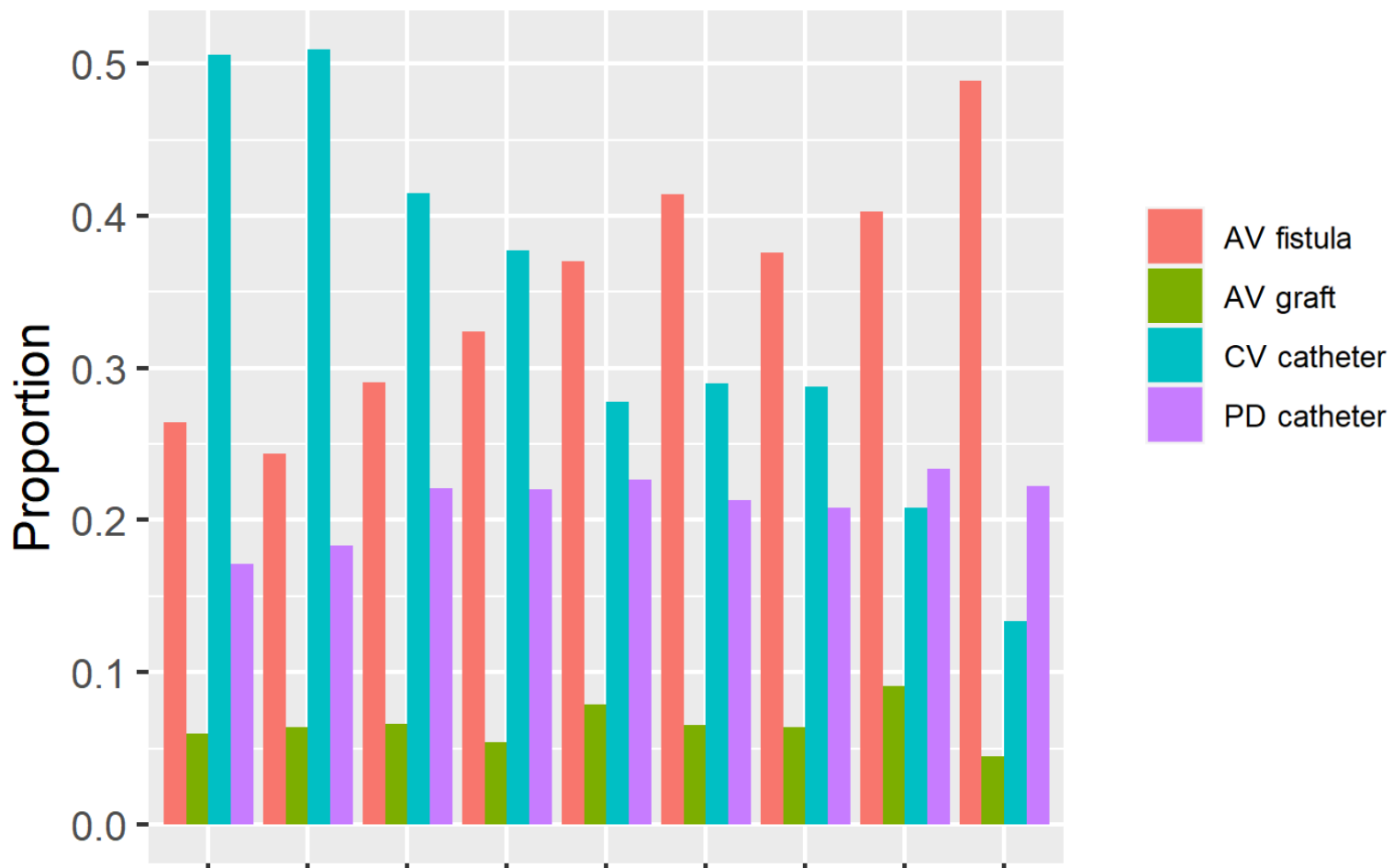
Figure S2: Proportion of patients on hemodialysis and peritoneal dialysis over a 36-month follow up period



Months	0	1	3	6	12	18	24	30	36
N [†]	269	267	258	241	216	169	125	77	45

[†] Represents the number of patients on dialysis in the interval between follow-up periods and not exact dates.

Figure S3: Proportion of patients using different dialysis access over a 36-month follow up period

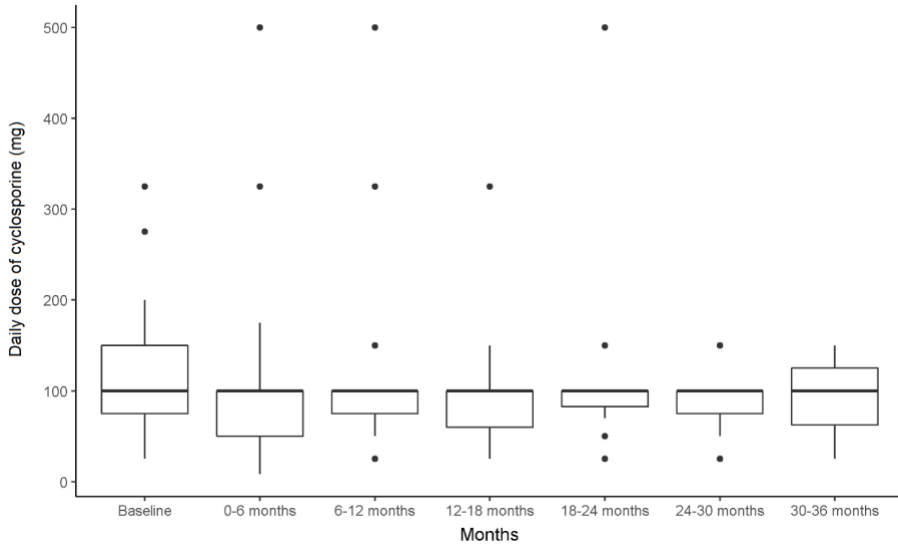


Months	0	1	3	6	12	18	24	30	36
N†	269	267	258	241	216	169	125	77	45

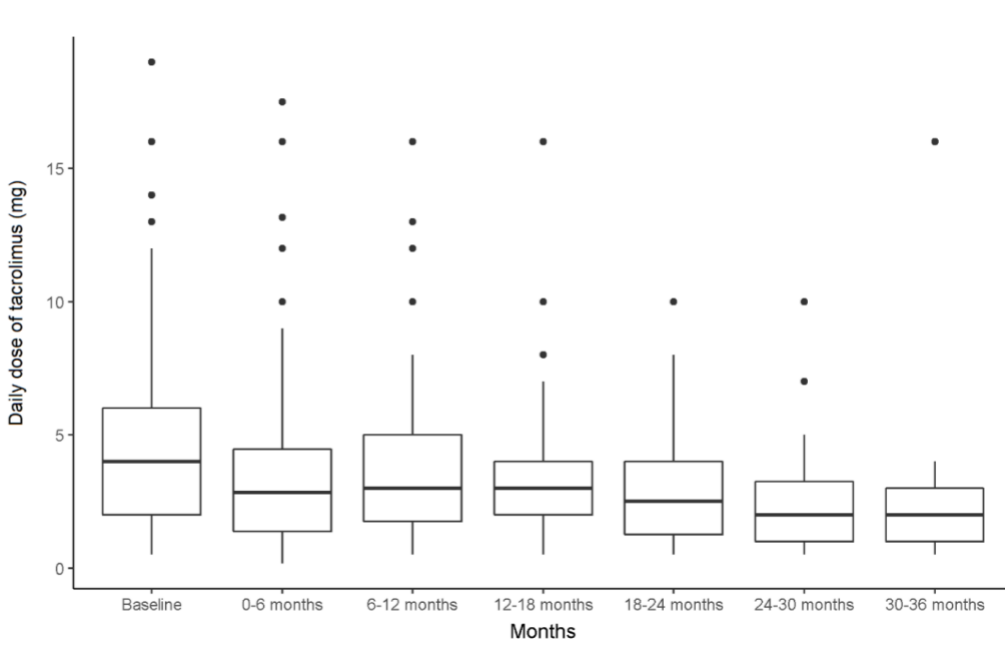
† Represents the number of patients using different dialysis access in the interval between follow-up periods and not exact dates.

Figure S4. The median daily dose cyclosporine (panel S4A), tacrolimus (S4b), mycophenolate mofetil (S4c), mycophenolate sodium (S4d), azathioprine (S4e), and prednisone (s4f).

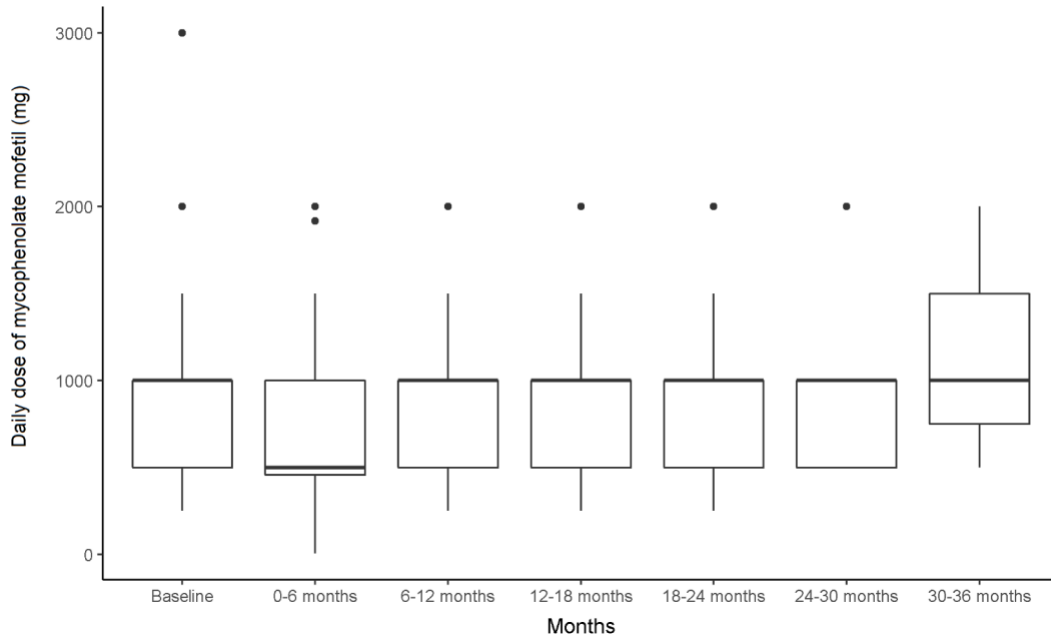
4a. Cyclosporine



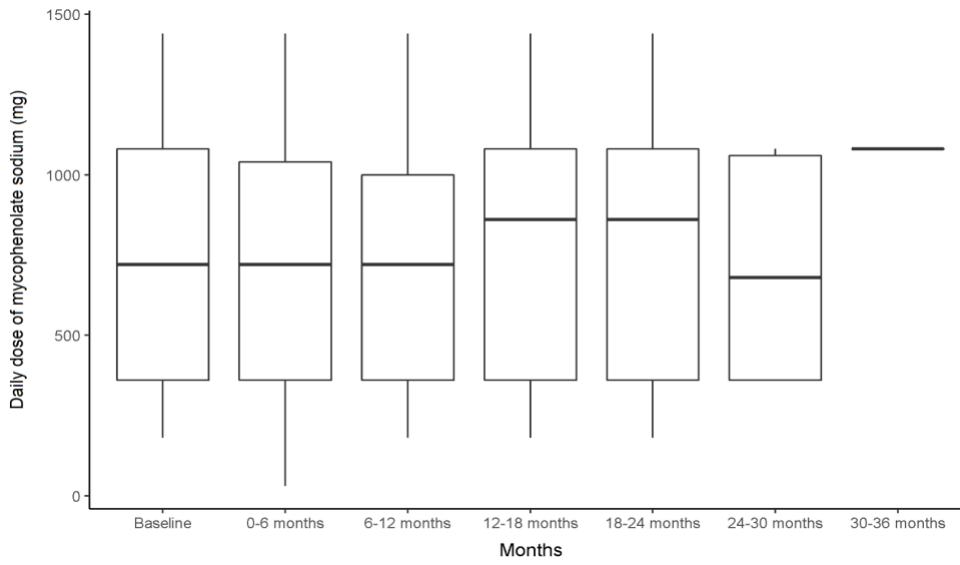
S4b. Tacrolimus



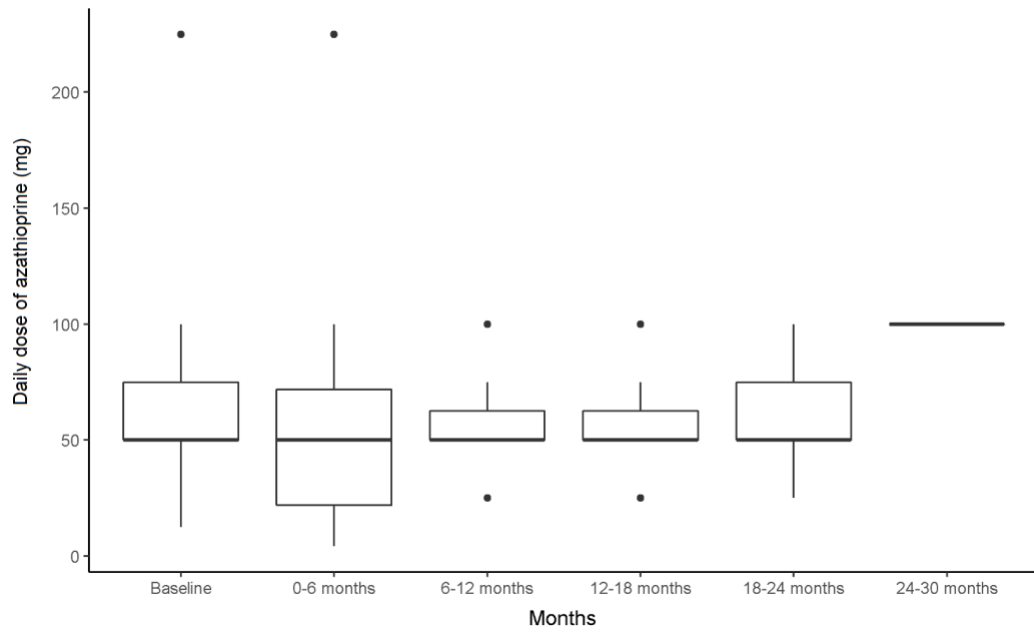
S4c. mycophenolate mofetil



S4d. mycophenolate sodium



S4e. azathioprine



S4f. prednisone

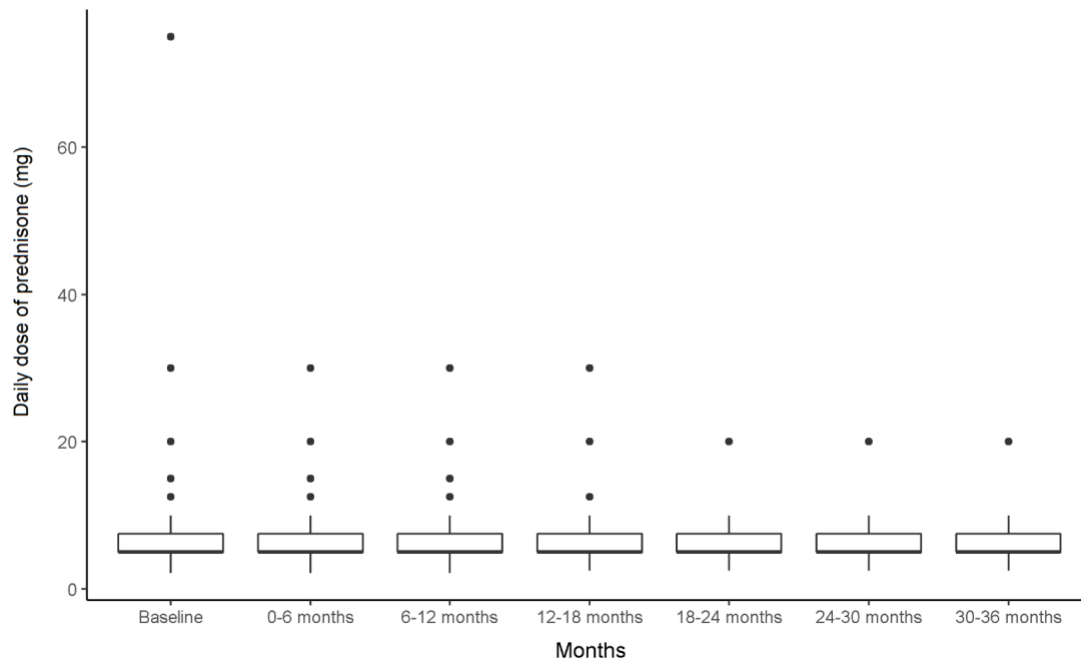
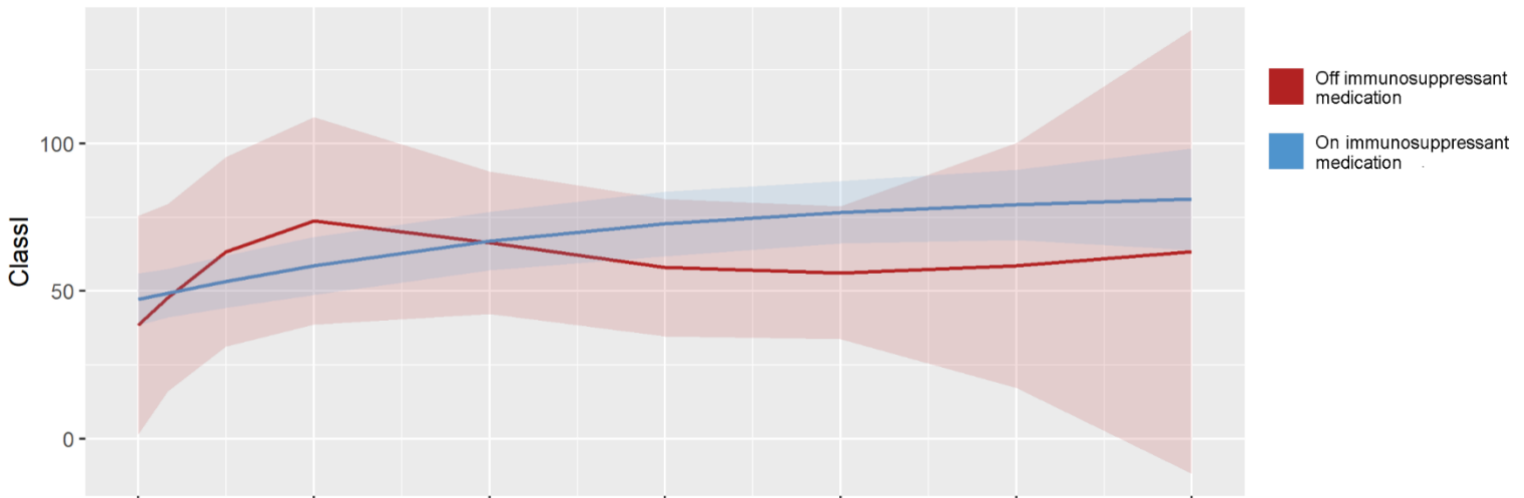


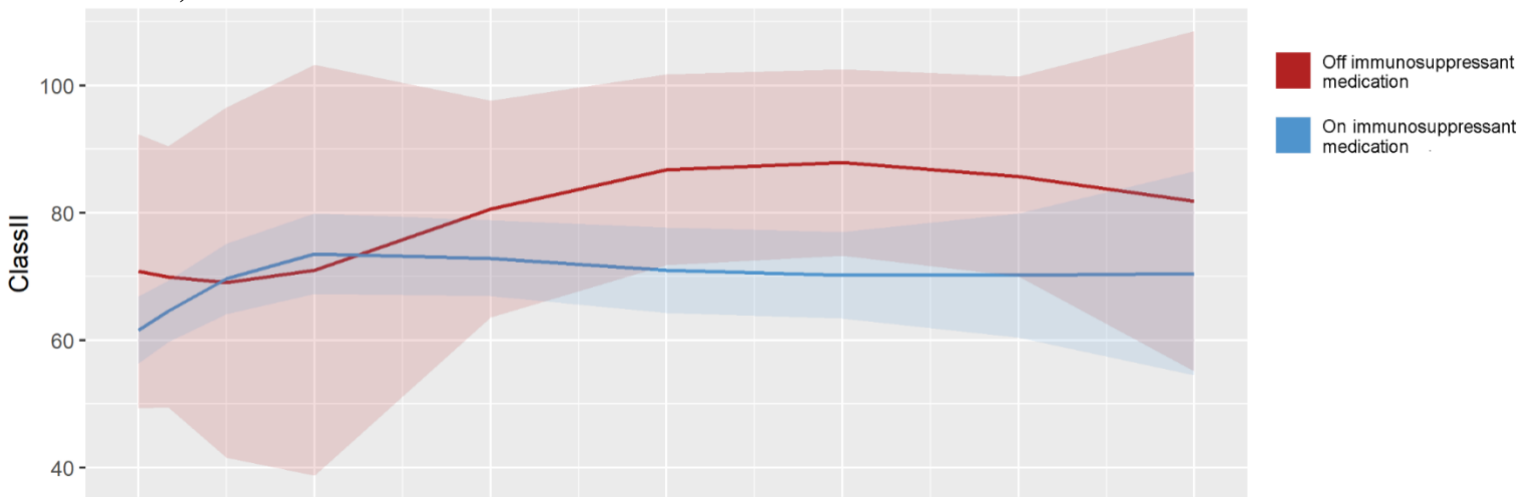
Figure S5- Temporal change in PRA for those with PRA > 20% at baseline and discontinued all immunosuppressants. (A) PRA class I; (B) PRA class II.

A)



Months	0	6	12	18	24	30	36
N	49	25	16	14	15	8	5

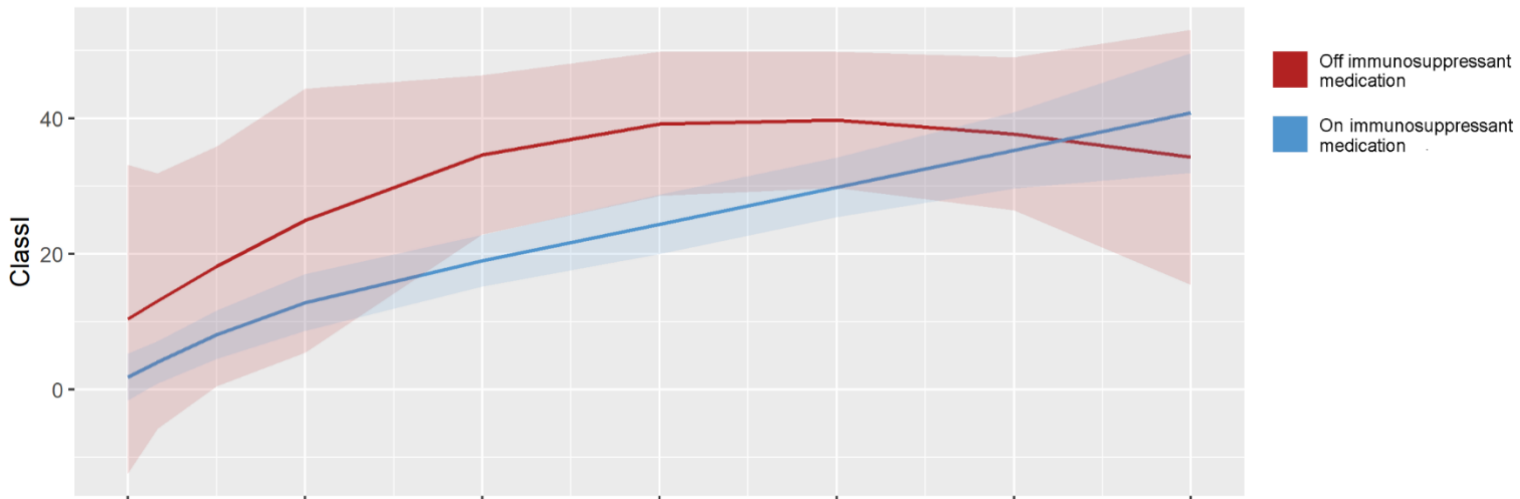
B)



Months	0	6	12	18	24	30	36
N	99	44	35	34	24	11	6

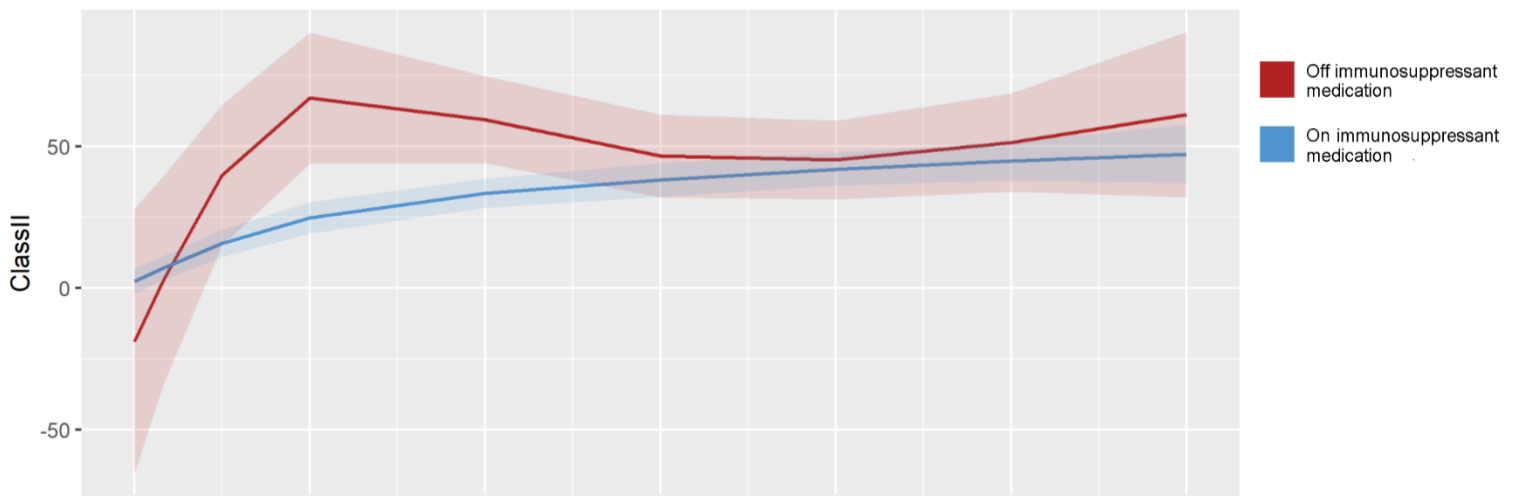
Figure S6- Temporal change in PRA for those with PRA < 20% at baseline and discontinued all immunosuppressants. (A) PRA class I; (B) PRA class II.

A)



Months	0	6	12	18	24	30	36
N	211	85	83	73	48	29	20

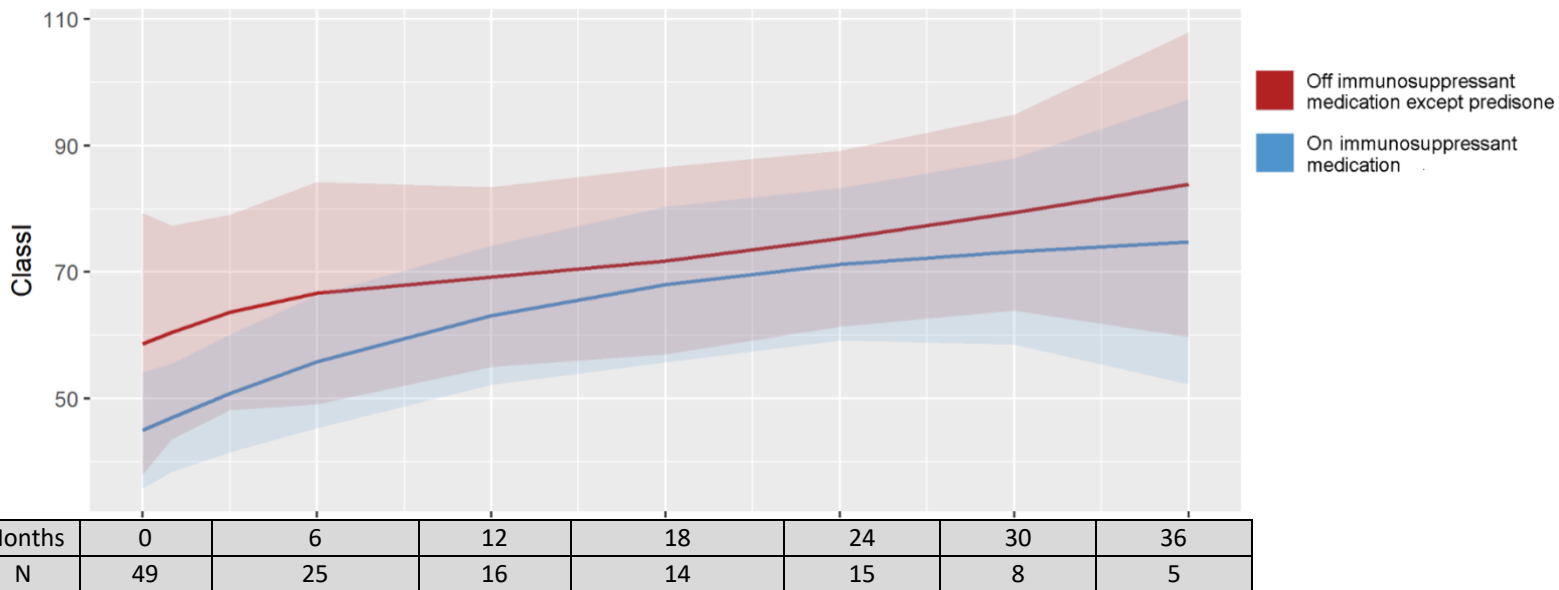
B)



Months	0	6	12	18	24	30	36
N	161	66	64	53	39	26	19

Figure S7- Temporal change in PRA for those with PRA > 20% at baseline and discontinued all immunosuppressants except prednisone. (A) PRA class I; (B) PRA class II.

A)



B)

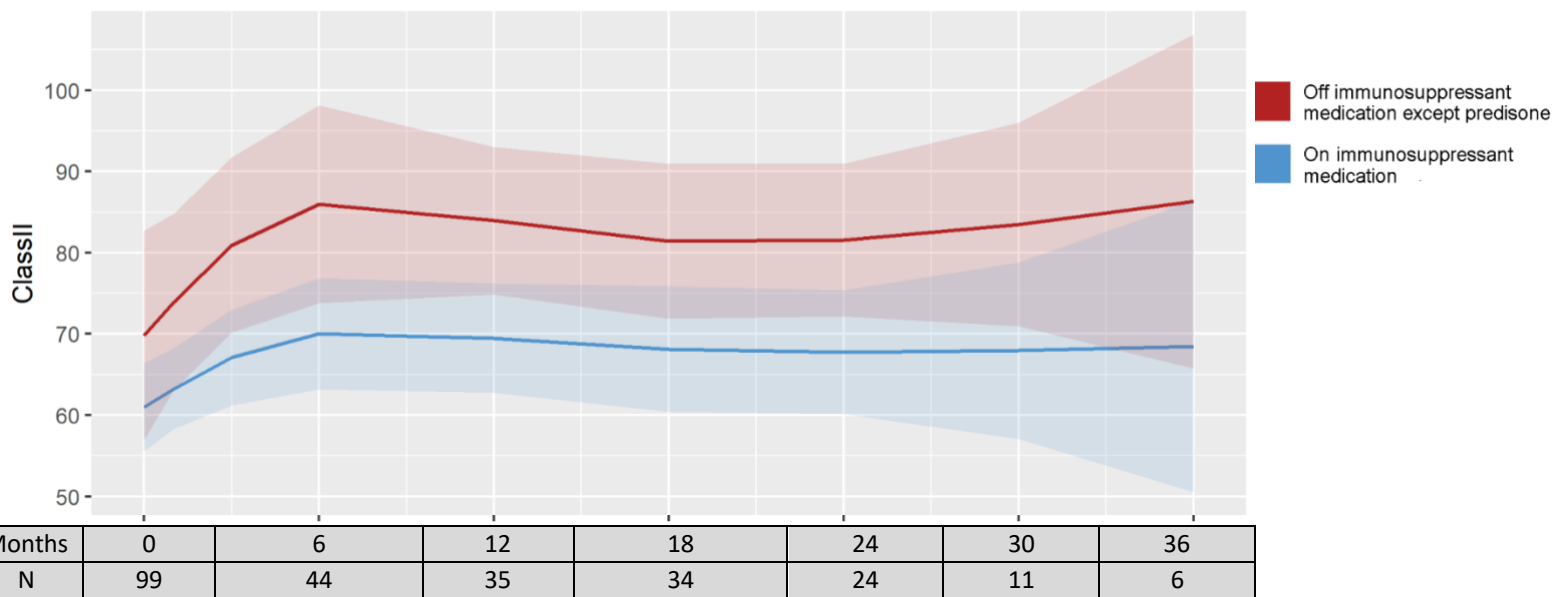
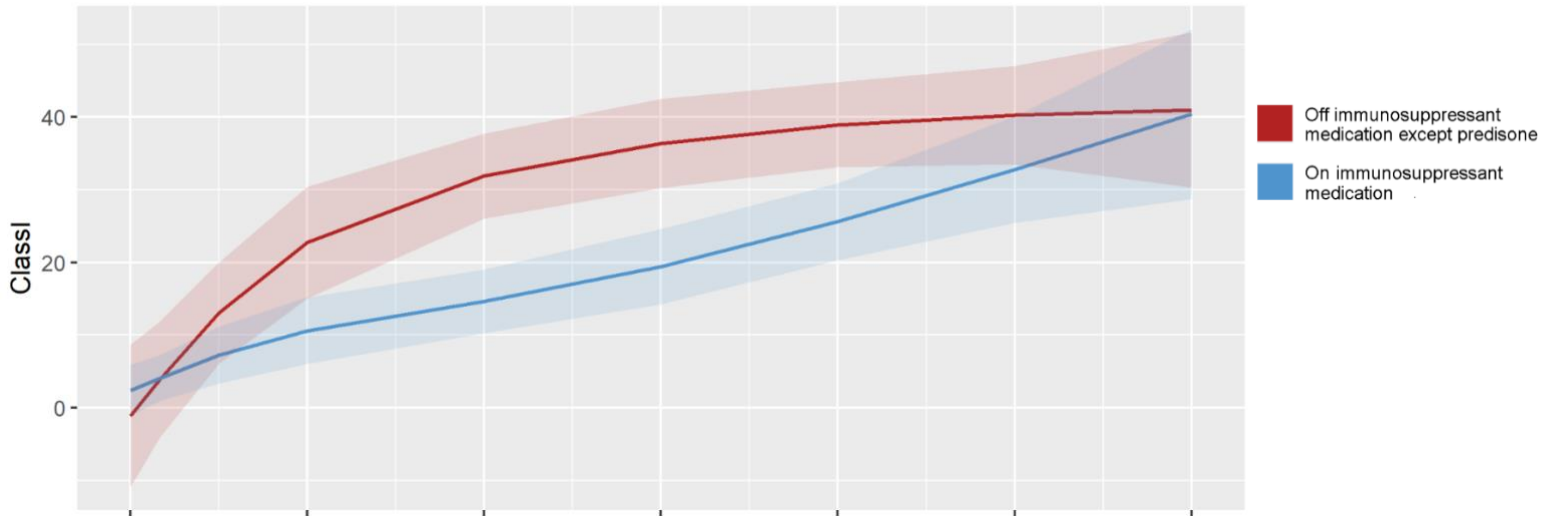


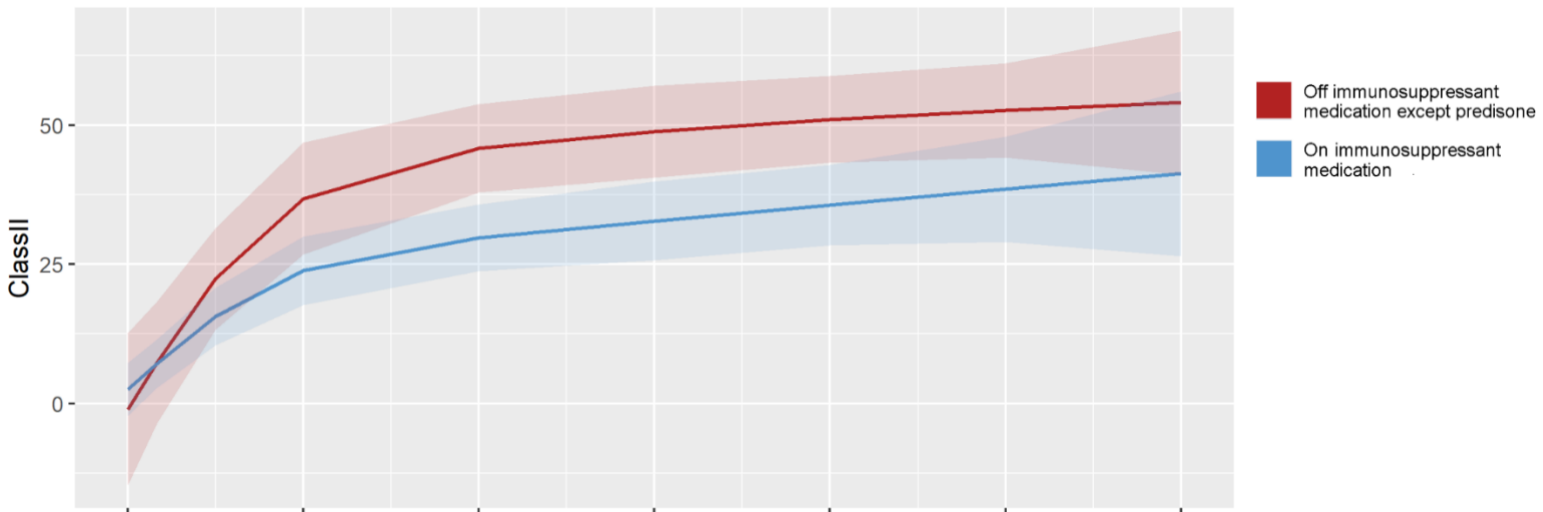
Figure S8- Temporal change in PRA for those with PRA < 20% at baseline and discontinued all immunosuppressants except prednisone. (A) PRA class I; (B) PRA class II.

A)



Months	0	6	12	18	24	30	36
N	211	85	83	73	48	29	20

B)



Months	0	6	12	18	24	30	36
N	161	66	64	53	39	26	19