

## Supplemental material

**Table S1. Inclusion, exclusion and randomization criteria of Tacrolimus monotherapy in immunologically low-risk kidney transplant recipients: a randomized-controlled trial.** Netherlands Trial Register [NTR4672, [www.trialregister.nl](http://www.trialregister.nl)]

transplantation	inclusion	exclusion	
	aged ≥18 years peakPRA <5% HLA mismatch <4 absence of immunological renal disease	CDC or FACS positive crossmatch	ABO-incompatibility
month 6	<b>Randomization</b> eGFR >30 ml/min proteinuria ≤ 50 mg/mmol in spot urine	multi-organ transplantation females of childbearing potential unwilling to use effective means of contraception	biopsy-proven rejection after 3 months lymphocyte depleting therapy

PRA: Panel-reactive antibody CDC: Complement-dependent cytotoxicity FACS: fluorescence activated cell sorting  
 HLA: human leukocyte antigen eGFR: estimated glomerular filtration rate

**Table S2. Tacrolimus and mycophenolate mofetil trough levels in kidney transplant recipients using tacrolimus with and without mycophenolate mofetil 6, 9, 12 and 15 months after transplantation.**

N	TACmono			TAC/MMF			<i>p</i> -value (of levels outside target level)
	Median in ug/L (TAC) or mg/L (MMF) (IQR)	Below range %	Above range %	Median in ug/L (TAC) or mg/L (MMF) (IQR)	Below range %	Above range %	
<b>Tacrolimus</b>							
M6	7.4 (2.8)	9	44	7.2 (2.8)	24	29	0.98
M9	6.3 (1.8)	15	18	5.9 (1.9)	18	5	0.29
M12	6.1 (1.8)	18	12	6.2 (1.3)	18	8	0.44
M15	6.3 (1.1)	18	6	6.1 (1.6)	16	11	0.79
<b>Mycophenolate mofetil</b>							
M6	2.2 (1.5)	35	15	1.8 (1.4)	29	18	0.83
M9	-	-	-	1.5 (1.4)	32	13	-
M12	-	-	-	2.0 (2.1)	29	32	-
M15	-	-	-	1.9 (2.0)	32	24	-

N: number TAC: tacrolimus MMF: mycophenolate mofetil IQR: interquartile range

M6: 6 months after transplantation M9: 9 months after transplantation M12: 12 months after transplantation

M15: 15 months after transplantation.

**Table S3. Effect of Mycophenolate Mofetil dose adaptations on diarrhea in the first year after kidney transplantation.**

Adaptation	n	Time	Mean diarrhea score	SE	95% Confidence Interval	
					Lower Bound	Upper Bound
<b>Increased dose</b>	8	M6	1.4	0.5	0.40	2.46
		M12	1.9	0.4	1.06	2.66
<b>Unchanged dose</b>	15	M6	1.4	0.4	0.70	2.11
		M12	1.7	0.3	1.19	2.28
<b>Decreased dose</b>	45	M6	2.4	0.2	1.98	2.81
		M12	1.7	0.2	1.35	1.20

M6: 6 months after kidney transplantation M12: 12 months after kidney transplantation

SE: standard error of the mean

**Table S4. Upper and lower gastrointestinal symptoms in kidney transplant recipients treated with tacrolimus with mycophenolate mofetil versus tacrolimus without mycophenolate mofetil.**

Time	Category	TACmono	TAC/MMF	p-value
<b>Month 6</b>	Upper	1.64 (0.81)	1.65 (0.86)	0.96
	Lower	1.64 (0.81)	1.65 (0.86)	0.96
<b>Month 12</b>	Upper	1.56 (0.75)	1.44 (0.60)	0.44
	Lower	1.68 (0.95)	1.82 (0.85)	0.50
<b>Month 15</b>	Upper	1.52 (0.80)	1.62 (0.71)	0.57
	Lower	1.76 (0.87)	1.97 (1.01)	0.34

\*Repeated measures analysis

Mean scores and standard deviations are reported per upper and lower category.

TACmono: tacrolimus monotherapy TAC: tacrolimus MMF: mycophenolate mofetil

**Table S5. The course of severe gastrointestinal symptoms in kidney transplant recipients from 6 months onwards per treatment group.**

Time	Dimension	Overall mean (SD)	TAC-mono mean (SD)	TAC/MMF mean (SD)
<b>Month 6</b>	<b>Abdominal pain n= 33</b>	2.7 (0.88)	2.7 (1.01)	2.7 (0.81)
	<b>Reflux n=12</b>	2.8 (1.01)	2.6 (0.55)	2.9 (1.35)
	<b>Indigestion n= 34</b>	2.7 (1.04)	2.6 (1.01)	2.8 (1.10)
	<b>Constipation n=23</b>	2.8 (1.10)	2.6 (1.03)	2.9 (1.17)
	<b>Diarrhea n=31</b>	3.3 (1.30)	3.8 (1.52)	2.8 (0.83)
<b>Month 12</b>	<b>Abdominal pain</b>		2.0 (1.00)	1.8 (1.02)
	<b>Reflux</b>		1.2 (0.45)	1.9 (0.90)
	<b>Indigestion</b>		2.0 (0.88)	2.1 (0.95)
	<b>Constipation</b>		2.4 (1.12)	2.7 (1.60)
	<b>Diarrhea</b>		1.7 (0.96)	2.3 (1.30)
<b>Month 15</b>	<b>Abdominal pain</b>		2.1 (1.12)	1.8 (0.90)
	<b>Reflux</b>		1.4 (0.89)	1.7 (1.11)
	<b>Indigestion</b>		2.1 (1.03)	2.3 (0.83)
	<b>Constipation</b>		2.2 (1.17)	3.2 (1.64)
	<b>Diarrhea</b>		2.0 (1.13)	2.3 (1.29)
<b>Change over time from 6 till 15 months after transplantation.</b>				
		$\Delta$ score	$\Delta$ score	p-value <sup>#</sup>
	<b>Abdominal pain</b>	-0.6	-0.9	0.87
	<b>Reflux</b>	-1.2	-1.2	0.96
	<b>Indigestion</b>	-0.5	-0.5	0.95
	<b>Constipation</b>	-0.4	+0.3	0.39
	<b>Diarrhea</b>	-1.8	-0.5	0.03

\*Repeated measures analysis

TACmono: tacrolimus monotherapy TAC: tacrolimus MMF: mycophenolate mofetil SD: standard deviation

N: number  $\Delta$ : change

**Table S6. Diarrhea multivariate analysis**

Time	Variabele	Correlation	<i>p-value</i>
<b>Month 6</b>	BMI	0.043	0.98
	Sex	0.385	0.71
	Age	0.015	0.50
	eGFR	0.011	0.66
	Proteinuria	0.022	0.77
<b>Month 12</b>	BMI	0.03	0.53
	Sex	0.277	0.27
	eGFR	0.007	0.14
	Proteinuria	0.010	0.22
<b>Month 15</b>	BMI	0.03	0.66
	Sex	0.30	0.11
	eGFR	0.008	0.69
	Proteinuria	0.009	0.47

BMI: body mass index eGFR: estimated glomerular filtration rate

**Table S7. Gastrointestinal complaints in kidney transplant recipients with and without recent antibiotic use.**

	With recent antibiotic use (n=16)	Without recent antibiotic use (n=128)	<i>p-value</i>
<b>Abdominal pain</b>	1.6	1.6	0.62
<b>Reflux</b>	1.3	1.3	0.68
<b>Indigestion</b>	1.5	1.8	0.12
<b>Constipation</b>	2.1	1.8	0.44
<b>Diarrhea</b>	1.9	1.7	0.49

N: number

**Table S8. Gastrointestinal symptoms in men versus women six months after kidney transplantation.**

Dimension	Sex	Mean	p-value
<i>Bonferroni correction: significance level &lt;0.01</i>			
<b>Abdominal pain</b>	Male	1.56	0.04
	Female	1.87	
<b>Indigestion</b>			
	Male	1.78	0.40
	Female	1.90	
<b>Reflux</b>			
	Male	1.31	0.28
	Female	1.45	
<b>Constipation</b>			
	Male	1.66	0.03
	Female	2.03	
<b>Diarrhea</b>			
	Male	1.77	0.09
	Female	2.08	