Supplementary Appendix

Supplement to:

Steering of Transplant Immunosuppression by Virus-Specific T Cells

(IVIST Trial)

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Table S1. Dose adjustments of immunosuppressants

	Tvis-based (intervention group) n=31	**non-Tvis-based (intervention group) n=31**	**non-Tvis-based (control group) n=33**
Number of dose adjustments totally (dose reduction; dose increase)	128 (125; 3)	494 (236; 258)	573 (319; 254)
Number of patients with dose adjustments totally (dose reduction; dose increase)	28 (28; 2)	31 (31; 30)	33 (33; 32)
Median (range) of dose adjustments totally [dose reduction; dose increase]	4 (0-10) [4 (0-10); 0 (0-2)]	11 (4-51) [6 (1-26); 6 (0-25)]	14 (3-49) [9 (1-24); 6 (0-25)]
Number of dose adjustments of everolimus (dose reduction; dose increase)	74 (73; 1)	310 (136; 174)	340 (190; 150)
Number of patients with dose adjustments of everolimus (dose reduction; dose increase)	26 (25; 1)	31 (29; 28)	33 (32; 31)
Median (range) of dose adjustments of everolimus [dose reduction; dose increase]	2 (0-8) [2 (0-8); 0 (0-1)]	8 (1-25) [5 (0-14); 4 (0-12)]	9 (1-27) [6 (0-14); 4 (0-13)]
Number of dose adjustments of CsA (dose reduction; dose increase)	54 (52; 2)	184 (100; 84)	233 (129; 104)
Number of patients with dose adjustments of CsA (dose reduction; dose increase)	25 (25; 2)	29 (24; 27)	30 (30; 26)
Median (range) of dose adjustments of CsA [dose reduction; dose increase]	2 (0-5) [2 (0-5); 0 (0-1)]	4 (0-26) [2 (0-13); 2 (0-13)]	5 (0-31) [2 (0-17); 3 (0-14)]

Table S2. Results of protocol biopsy

	Intervention (N=24)	Control (N=26)	Total (N=50)
No rejection	11	9	20
Borderline	8	11	19
Banff type IA	4	3	7
Banff type IB	0	2	2
Banff type IIA	1	1	2
Banff type IIB	0	0	0
Banff type III	0	0	0

Protocol biopsy (6 months after transplantation) was performed on 51 patients. For one patient in the control group, the sample material was insufficient for histological assessment.

Table S3. Summary of (serious) adverse events

	Intervention (N=31)	Control (N=33)	Total (N=64)	p-value
Adverse events (AEs)				
Total number of AEs	947	967	1914	
Number of patients with ≥ 1 AE	31 (100.0%)	33 (100.0%)	64 (100.0%)	
Number of patients with ≥ 1 AE with suspected relationship to study medication†	26 (83.9%)	31 (93.9%)	57 (89.1%)	0.25
Serious adverse events (SAEs)				
Total Number of SAEs	168	157	325	
Number of patients with ≥ 1 SAE*	25 (80.6%)	28 (84.8%)	53 (82.8%)	0.66
Number of patient with ≥ 1 SAE with suspected relationship to study medication*	17 (54.8%)	18 (54.5%)	35 (54.7%)	0.98
SAE with outcome death†	0 (0.0%)	1 (3.0%)	1 (1.6%)	1.00

AE – adverse event

SAE – serious adverse event

Displayed are absolute and relative frequencies. p-values for the comparison between intervention and control group are derived either from two-sided chi-squared test (*) or from two-sided Fisher's exact test (†).

Table S4. System organ classes of serious adverse events

	Intervention (N=31)	Control (N=33)	Total (N=64)
Blood and lymphatic system dis	2 (6.5%)	3 (9.1%)	5 (7.8%)
Cardiac dis	0 (0.0%)	2 (6.1%)	2 (3.1%)
Congenital, familial and genetic dis	0 (0.0%)	1 (3.0%)	1 (1.6%)
Endocrine dis	1 (3.2%)	0 (0.0%)	1 (1.6%)
Eye dis	0 (0.0%)	1 (3.0%)	1 (1.6%)
Gastrointestinal dis	8 (25.8%)	5 (15.2%)	13 (20.3%)
General dis and asd	8 (25.8%)	13 (39.4%)	21 (32.8%)
Immune dis	8 (25.8%)	14 (42.4%)	22 (34.4%)
Infections and infestations	20 (64.5%)	17 (51.5%)	37 (57.8%)
Injury, poisoning and pc	1 (3.2%)	5 (15.2%)	6 (9.4%)
Investigations	11 (35.5%)	8 (24.2%)	19 (29.7%)
Metabolism and nutrition dis	11 (35.5%)	8 (24.2%)	19 (29.7%)
Nervous system dis	1 (3.2%)	1 (3.0%)	2 (3.1%)
Product issues	0 (0.0%)	1 (3.0%)	1 (1.6%)
Renal and urinary dis	5 (16.1%)	2 (6.1%)	7 (10.9%)
Respiratory, thoracic, mediastinal dis	2 (6.5%)	3 (9.1%)	5 (7.8%)
Skin and subcutaneous tissue dis	1 (3.2%)	0 (0.0%)	1 (1.6%)
Vascular dis	0 (0.0%)	2 (6.1%)	2 (3.1%)

asd - administration site conditions

dis - disorders

pc - procedural complications