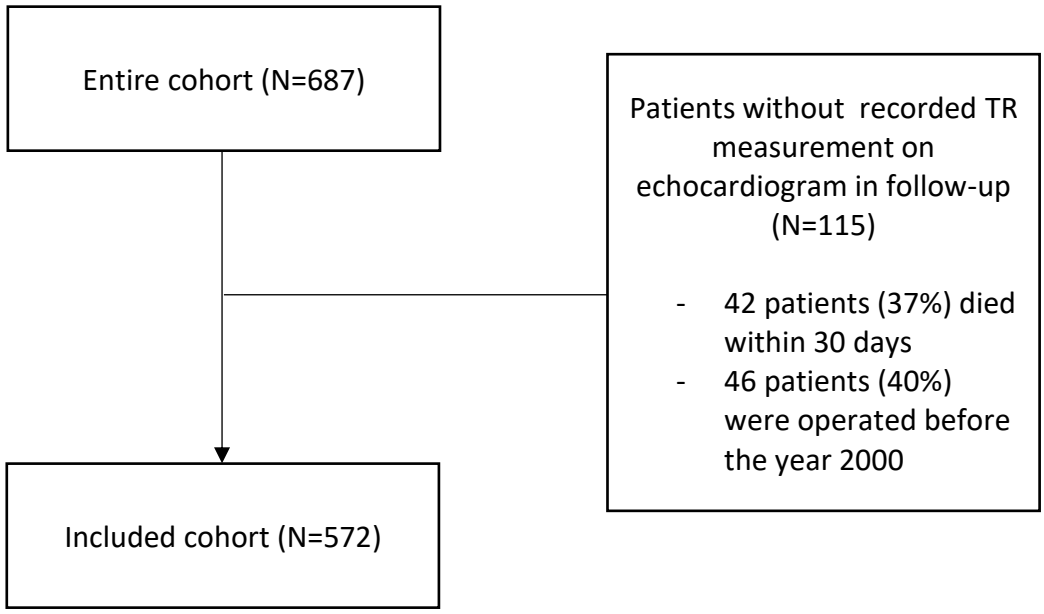
Contents

Supplementary Figure 1: Flowchart of included patients.



Supplementary table 1: Estimates of the relative hazard model (cox) in the joint-model using the horseshoe global-local shrinkage prior and value, slope and area under the curve association structures.

Variable	OR	95% CI	P value
Receiver age	1.01	(1.00; 1.03)	0.050
Receiver female sex	1.25	(0.95; 1.77)	0.186
Donor female sex	1.03	(0.86; 1.26)	0.820
Ischemia time	1.00	(1; 1.01)	0.036
Cardiac reoperation	1.17	(0.95; 1.53)	0.198
Urgency1 vs 0	0.98	(0.73; 1.22)	0.870
Urgency2 vs 0	0.89	(0.56; 1.18)	0.544
Urgency3 vs 0	6.98	(1.02; 26.60)	0.042
No mechanical assistance prior HTx	0.83	(0.32; 1.23)	0.608
Donor Age	0.99	(0.98; 1.01)	0.404
Non-ischemic CMP vs ischemic	1.05	(0.86; 1.38)	0.656
Other diagnosis vs ischemic	1.09	(0.81; 1.75)	0.710
Pre HTx diabetes	2.17	(1.16; 3.79)	0.010
Creatinine	1.00	(1; 1)	0.026
Pacemaker[1]	1.02	(0.80; 1.36)	0.888
Dialysis[1]	1.64	(1.09; 2.30)	0.020
Mod-sev TR (value)	1.07	(1.01; 1.15)	0.010
Mod-sev TR (slope)	0.97	(0.35; 1.95)	0.978
Mod-sev TR (area)	1.00	(1.00; 1.00)	0.046

Supplementary table 2: Estimates of the relative hazard model (cox) in the joint-model using the ridge global-local shrinkage prior and value, slope and area under the curve association structures.

Variable	OR	95% CI	P value
Receiver age	1.01	(1.00; 1.03)	0.060
Receiver female sex	1.41	(0.97; 1.97)	0.066
Donor female sex	1.04	(0.76; 1.42)	0.802
Ischemia time	1.00	(1; 1.01)	0.064
Cardiac reoperation	1.22	(0.90; 1.62)	0.188
Urgency1 vs 0	0.93	(0.63; 1.38)	0.722
Urgency2 vs 0	0.76	(0.47; 1.21)	0.232
Urgency3 vs 0	7.57	(1.42; 32.30)	0.022
No mechanical assistance prior HTx	0.63	(0.24; 1.68)	0.308
Donor Age	0.99	(0.98; 1.01)	0.302
Non-ischemic CMP vs ischemic	1.14	(0.84; 1.61)	0.402
Other diagnosis vs ischemic	1.15	(0.59; 2.07)	0.618
Pre HTx diabetes	2.45	(1.53; 3.96)	0.002
Creatinine	1.00	(1; 1)	0.040
Pacemaker[1]	1.03	(0.66; 1.56)	0.902
Dialysis[1]	1.78	(1.21; 2.49)	0.006
Mod-sev TR (value)	1.09	(1.02; 1.15)	0.006
Mod-sev TR (slope)	0.95	(0.53; 1.42)	0.770
Mod-sev TR (area)	1.00	(1.00; 1.00)	0.050

Supplementary table 3: Estimates of the relative hazard model (cox) in the joint-model using value, slope and area under the curve association structures but with no shrinkage.

Variable	OR	95% CI	P value
Receiver age	1.01	(1.00; 1.03)	0.158
Receiver female sex	1.44	(0.96; 2.12)	0.074
Donor female sex	1.03	(0.76; 1.43)	0.904
Ischemia time	1.00	(1; 1.01)	0.112
Cardiac reoperation	1.24	(0.91; 1.70)	0.218
Urgency1 vs 0	0.92	(0.62; 1.37)	0.720
Urgency2 vs 0	0.77	(0.44; 1.22)	0.308
Urgency3 vs 0	8.74	(1.39; 48.33)	0.028
No mechanical assistance prior HTx	0.67	(0.23; 2.15)	0.474
Donor Age	0.99	(0.98; 1.01)	0.348
Non-ischemic CMP vs ischemic	1.15	(0.81; 1.67)	0.442
Other diagnosis vs ischemic	1.12	(0.56; 2.15)	0.752
Pre HTx diabetes	2.52	(1.46; 4.22)	<0.001
Creatinine	1.00	(0.99; 1)	0.070
Pacemaker[1]	1.01	(0.65; 1.50)	0.918
Dialysis[1]	1.83	(1.26; 2.64)	0.002
Mod-sev TR (value)	1.12	(1.03; 1.22)	0.010
Mod-sev TR (slope)	0.53	(0.07; 3.27)	0.546
Mod-sev TR (area)	1.00	(1.00; 1.00)	0.046

Supplementary table 4: Estimates of the relative hazard model (cox) in the joint-model with left vertical function as time-varying covariate predicting mortality.

Variable	OR	95% CI	P value
Receiver age	1.04	(1.03; 1.06)	<0.001
Receiver female sex	1.16	(0.84; 1.64)	0.344
Donor female sex	1.37	(1.03; 1.82)	0.04
Ischemia time	1.00	(1; 1)	0.534
Cardiac reoperation	1.49	(1.08; 2.03)	0.012
Urgency1 vs 0	1.16	(0.78; 1.78)	0.436
Urgency2 vs 0	0.80	(0.49; 1.3)	0.356
Urgency3 vs 0	11.69	(2.08; 45.83)	0.018
No mechanical assistance prior HTx	1.66	(0.63; 4.58)	0.296
Donor Age	0.98	(0.97; 0.99)	<0.001
Non-ischemic CMP vs ischemic	1.19	(0.85; 1.62)	0.272
Other diagnosis vs ischemic	0.92	(0.48; 1.75)	0.764
Pre HTx diabetes	1.43	(0.85; 2.27)	0.136
Creatinine	1.00	(1; 1)	0.658
Pacemaker[1]	0.99	(0.66; 1.45)	0.932
Dialysis[1]	1.37	(0.94; 2.03)	0.102
Moderately/severe LV function vs normal[1]	110.23	(53.51; 252.98)	<0.001
Mod-sev TR	1.07	(1.02; 1.12)	0.008

1: Time-varying covariate

Supplementary table 5: Random correlation matrix of the multivariate longitudinal model with creatinine and tricuspid regurgitation. Random effect were: intercept for patients and slope over time in both models. No splines were added in the random effects for time in order to enhance interpretability.

	Intercept TR	Random slope TR	Random slope creatinine	Intercept creatinine
Intercept TR	1	X	X	X
Random slope TR	0.1791	1	X	X
Random slope creatinine	-0.6112	0.4540	1	X
Intercept creatinine	0.0464	0.0775	-0.5634	1

Supplementary table 6: Estimates for the relative hazard model (cox) a in the joint model predicting dialysis.

Variable	OR	95% CI	P value
Reciever Age	0.99	(0.97; 1.02)	0.546
Baseline creatinine	1.00	(0.99; 1.01)	0.784
Receiver female sex	0.58	(0.26; 1.21)	0.150
Moderate-to-severe TR	1.21	(1.04; 1.44)	0.012

Supplementary table 7: Estimates for the relative hazard model (cox) a in the joint model predicting mortality, with both longitudinal evolution of right ventricular function and moderate-to-severe TR as predictor. The current value parametrization was used in both predictors.

Variable	OR	95% CI	P value
Receiver age	1,04	(1; 1,07)	0.028
Receiver female sex	1,64	(0,87; 3,27)	0.12
Donor female sex	0,92	(0,45; 1,81)	0.82
Ischemia time	1,01	(1; 1,01)	0.026
Cardiac reoperation	1,08	(0,57; 1,97)	0.82
Urgency1 vs 0	0,34	(0,12; 0,86)	0.020
Urgency2 vs 0	0,37	(0,14; 0,94)	0.036
Urgency3 vs 0	3,50	(0,22; 34,2)	0.32
No mechanical assistance prior HTx	0,40	(0,08; 2,53)	0.33
Donor Age	1,00	(0,97; 1,03)	0.84
Non-ischemic CMP vs ischemic	1,06	(0,57; 1,95)	0.85
Other diagnosis vs ischemic	1,17	(0,15; 7,83)	0.88
Pre HTx diabetes	3,16	(1,32; 7,08)	0.012
Creatinine	1,00	(0,99; 1,01)	0.93
Pacemaker[1]	1,03	(0,46; 2,22)	0.95
Dialysis[1]	2,44	(1,16; 4,95)	0.014
Right ventricle dyfunction	1,02	(0,93; 1,13)	0.63
Mod-sev TR	1,06	(1,02; 1,12)	0.002

Supplementary table 8: Estimates for the logistic mixed-effects model part from the joint model predicting mortality with year as predictor.

Variable	Log(OR)	Log(95% CI)	P value
Intercept	-3,24	(-15,24; 0)	0.736
Spline 1 of time[1]	-2,24	(-4,613; 0)	0.026
Spline 2 of time[1]	-9,60	(-13,239; 0)	<0.001
Spline 3 of time[1]	-8,45	(-13,605; 0)	<0.001
Receiver age	-0,05	(-0,095; 0)	0.028
Donor age	0,04	(-0,004; 0)	0.064
Receiver female sex	-1,23	(-2,502; 0)	0.042
Donor female sex	1,01	(-0,08; 0)	0.064
Ischemia time	-0,01	(-0,025; 0)	0.096
Cardiac reoperation	0,10	(-0,796; 0)	0.84
Urgency 1 vs 0	0,96	(-0,39; 0)	0.18
Urgency 2/3 vs 0	0,03	(-1,286; 0)	0.96
No mechanical assistance prior HTx	5,43	(1,779; 0)	0.006
Pre HTx diabetes	-0,37	(-2,194; 0)	0.69
Number rejection first year	0,08	(-0,2; 0)	0.50
Mildly impaired LV function vs normal[2]	0,27	(-0,194; 0)	0.26
Moderately impaired LV function vs normal[2]	1,54	(0,676; 0)	0.002
Severely impaired LV function vs normal[2]	4,31	(2,26; 0)	<0.001
Pacemaker[2]	-0,56	(-2,257; 0)	0.50
Creatinine	0,01	(0,001; 0)	0.044
Year of surgery	-0,01	(-0,016; 0)	0.32

Supplementary table 9: Estimates for relative hazard model (cox) part from the joint model predicting mortality with year as predictor.

Variable	OR	95% CI	P value
Receiver age	1,04	(1,02; 1,06)	<0.001
Receiver female sex	1,49	(1; 2,19)	0.046
Donor female sex	1,09	(0,78; 1,49)	0.60
Ischemia time	1,00	(1; 1,01)	0.098
Cardiac reoperation	1,24	(0,91; 1,67)	0.18
Urgency1 vs 0	0,83	(0,53; 1,27)	0.39
Urgency2 vs 0	0,80	(0,45; 1,35)	0.38
Urgency3 vs 0	10,67	(1,26; 56,75)	0.034
No mechanical assistance prior HTx	0,59	(0,21; 1,91)	0.36
Donor Age	0,99	(0,98; 1,01)	0.33
Non-ischemic CMP vs ischemic	1,18	(0,8; 1,67)	0.36
Other diagnosis vs ischemic	1,05	(0,52; 2,13)	0.90
Pre HTx diabetes	2,27	(1,3; 4)	0.004
Creatinine	1,00	(0,99; 1)	0.096
Pacemaker[1]	0,99	(0,61; 1,58)	0.94
Dialysis[1]	1,75	(1,19; 2,53)	0.004
Year of surgery	1,00	(1.00; 1.00)	0.14
Mod-sev TR	1,06	(1,02; 1,12)	0.006