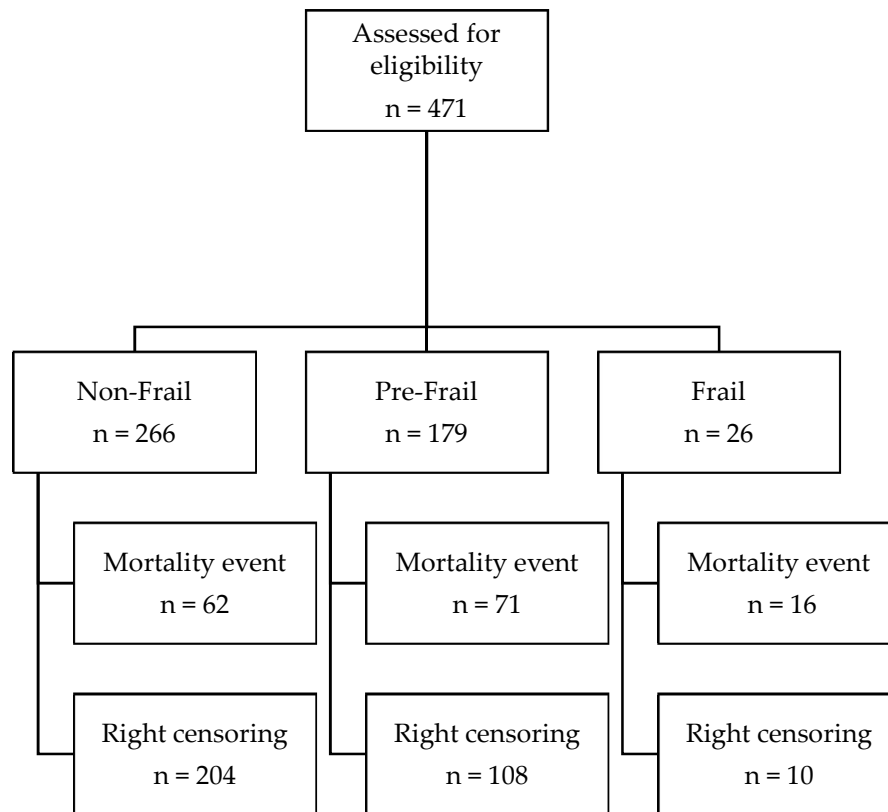


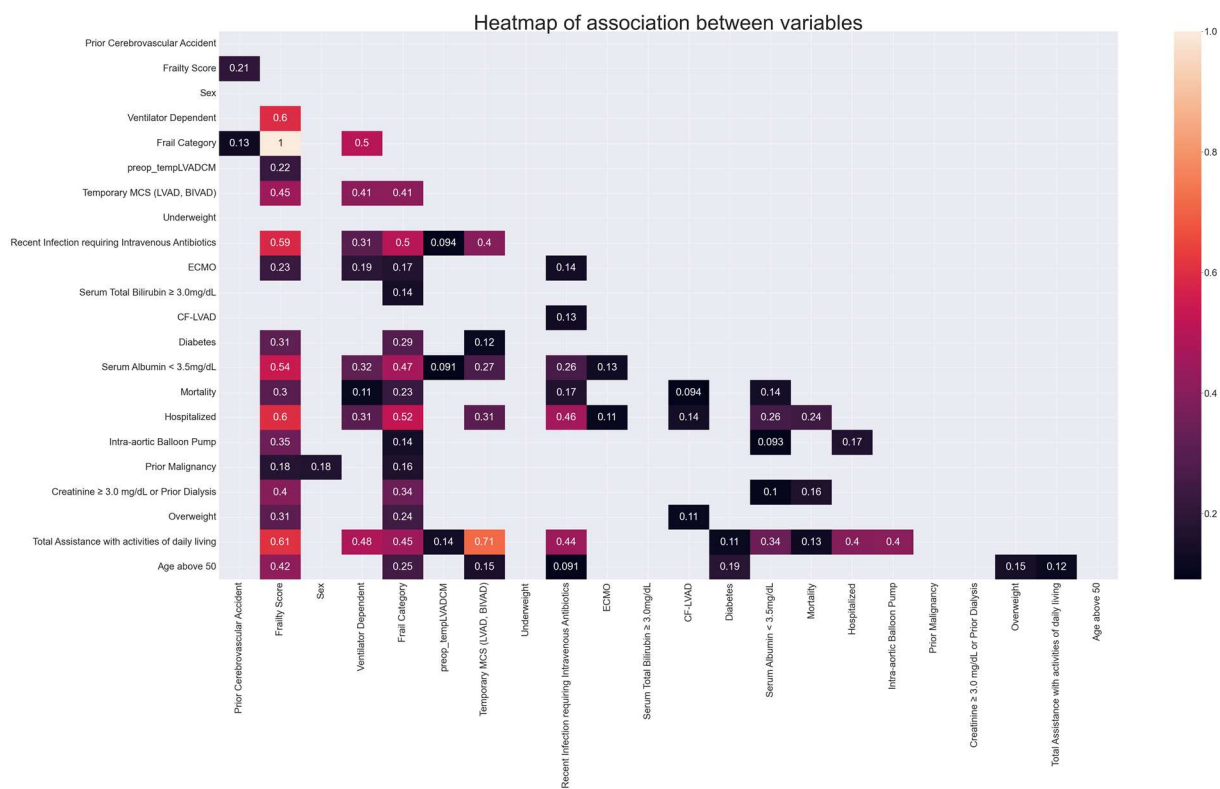
# The impact of frailty components and preoperative mechanical cardiac support changes with time after heart transplantation

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## SUPPLEMENTARY MATERIAL

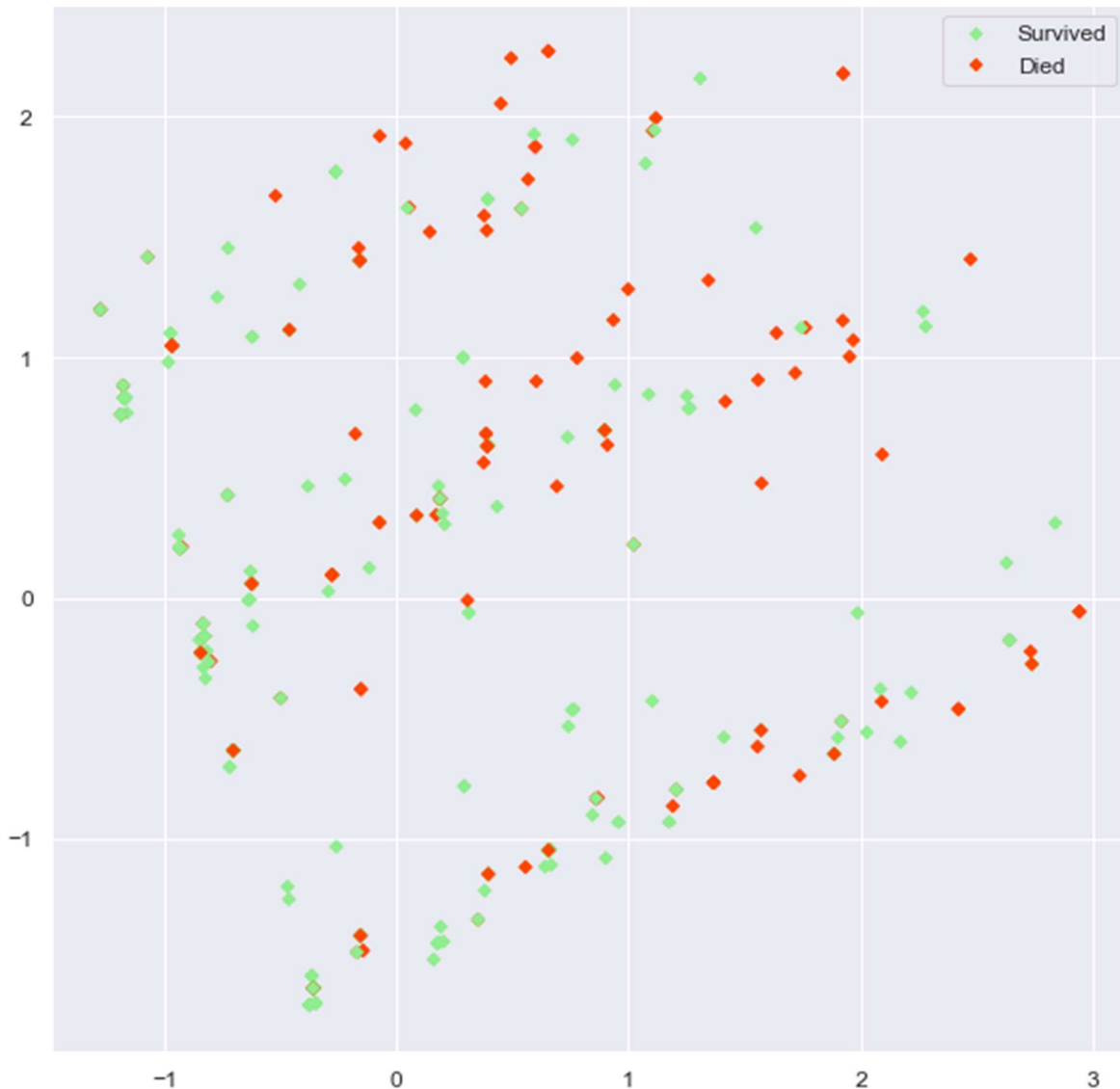


**Figure S1.** CONSORT statement of the study



**Figure S2.** Cramer's V association between frailty components.

CF-LVAD: continuous flow left ventricular device, ECMO: extracorporeal membrane oxygenation



**Supplement Figure S3.** Principal component analysis with two principle vectors for frailty score components

Explained variation per principal component: Principle Component 1 - 0.22; Principle Component 2 - 0.15

Analyzing components of the OHT frailty screening tool with principal component analysis showed that 11 principle components were needed to capture more than 95% of the variance of the data, with a smooth plot of cumulative variance over the number of principle components. Two components, used for visualization, captured 35% of the variance. Patients did not form defined clusters, and the whole distribution was uniform, with a slight increase in the prevalence of mortality with higher values of the principal components, so components of the OHT frailty screening tool can predict outcomes with fair reliability. (Figure S3)

**Table S1.** Mortality at different time points for statistically significant components of the frailty score, defined in multivariable Cox model for different time periods

Variables		Mortality				Total
		30 days	1 year	2 years	5 years	
Age above 50	Mortality event	38	65	75	82	95
	Censoring	0	0	8	66	187
	p	0.0315	0.0193	0.0072	0.0627	0.0353
Creatinine $\geq$ 3.0 mg/dL or Prior Dialysis	Mortality event	18	38	46	50	53
	Censoring	0	0	2	29	64
	p	0.4006	<0.005	<0.005	<0.005	<0.005
Hospitalized	Mortality event	32	57	65	75	84
	Censoring	0	0	2	29	99
	p	0.0412	<0.005	<0.005	<0.005	<0.005

**n** – cumulative mortality, % - percentage of patients who died from the initial cohort size, **p** – statistical significance from multivariate time-dependent Cox hazard model

**Table S2.** Follow-up hazard ratios of the multivariable Cox- model for frailty score components at different time points

Variables		Time periods				
		30 days	1 year	2 years	5 years	Total
<b>Variables significant at least at one time point</b>						
	<b>c-index</b>	0.71	0.69	0.69	0.68	0.67
<b>Age above 50</b>	<b>HR</b>	1.99	1.73	1.8	1.44	1.47
	<b>CI</b>	1.06-3.74	1.09-2.73	1.17-2.77	0.98-2.1	1.03-2.09
	<b>P</b>	0.0315	0.0193	0.0072	0.0627	0.0353
<b>Creatinine ≥ 3.0 mg/dL or prior dialysis</b>	<b>HR</b>	1.29	1.87	2.18	1.97	1.78
	<b>CI</b>	0.71-2.35	1.22-2.86	1.47-3.23	1.36-2.84	1.26-2.52
	<b>p</b>	0.4006	<0.005	<0.005	<0.005	<0.005
<b>Hospitalized</b>	<b>HR</b>	1.99	1.98	1.98	2.02	1.93
	<b>CI</b>	1.03-3.86	1.22-3.22	1.26-3.12	1.34-3.05	1.32-2.83
	<b>p</b>	0.0412	0.0058	<0.005	<0.005	<0.005
<b>Statistically insignificant variables</b>						
<b>Overweight</b>	<b>HR</b>	1.86	1.34	1.18	0.99	1.02
	<b>CI</b>	0.96-3.61	0.8-2.25	0.72-1.94	0.61-1.6	0.65-1.61
	<b>p</b>	0.0652	0.262	0.5032	0.9515	0.9166
<b>Underweight</b>	<b>HR</b>	2.05	1.24	1.07	1.16	1
	<b>CI</b>	0.62-6.84	0.38-4.01	0.33-3.47	0.42-3.22	0.37-2.76
	<b>p</b>	0.2422	0.7241	0.9051	0.7695	0.9945
<b>Serum albumin &lt; 3.5 mg/dL</b>	<b>HR</b>	1.32	1.27	1.19	1.2	1.21
	<b>CI</b>	0.68-2.54	0.78-2.08	0.75-1.88	0.78-1.84	0.82-1.81
	<b>p</b>	0.4119	0.3323	0.4717	0.4015	0.3394
<b>Serum total bilirubin ≥ 3.0 mg/dL</b>	<b>HR</b>	1.32	0.98	0.83	0.67	0.7
	<b>CI</b>	0.31-5.52	0.31-3.15	0.26-2.66	0.21-2.11	0.26-1.91
	<b>p</b>	0.7069	0.9788	0.7569	0.4904	0.4865
<b>Diabetes</b>	<b>HR</b>	0.93	1.2	1.15	1.18	1.21
	<b>CI</b>	0.51-1.72	0.76-1.88	0.75-1.76	0.8-1.75	0.85-1.74
	<b>p</b>	0.8261	0.4359	0.5181	0.4087	0.2939
<b>Ventilator dependent</b>	<b>HR</b>	1.29	1.33	1.46	1.23	1.29
	<b>CI</b>	0.43-3.82	0.6-2.94	0.69-3.09	0.6-2.51	0.65-2.55
	<b>p</b>	0.6495	0.4878	0.3213	0.5745	0.4615

<b>Prior cerebrovascular accident</b>	<b>HR</b>	1.64	1.21	1.23	1.2	1.24
	<b>CI</b>	0.79-3.42	0.65-2.23	0.7-2.18	0.72-2.02	0.77-2
	<b>p</b>	0.1844	0.5466	0.4703	0.4841	0.369
<b>Prior malignancy</b>	<b>HR</b>	0.32	0.77	0.66	0.66	0.64
	<b>CI</b>	0.04-2.32	0.31-1.91	0.27-1.62	0.29-1.51	0.3-1.38
	<b>p</b>	0.2572	0.5748	0.3623	0.3253	0.2525
<b>Total assistance with activities of daily living</b>	<b>HR</b>	0.87	1.2	1.3	1.25	1.17
	<b>CI</b>	0.33-2.28	0.6-2.42	0.67-2.52	0.68-2.3	0.65-2.09
	<b>p</b>	0.7767	0.6014	0.4381	0.4688	0.6071
<b>Recent infection requiring intravenous antibiotics</b>	<b>HR</b>	1.84	1.4	1.28	1.25	1.31
	<b>CI</b>	0.93-3.65	0.83-2.39	0.77-2.12	0.78-1.99	0.85-2.03
	<b>p</b>	0.0797	0.2105	0.3411	0.3474	0.226