

Psychosocial Risk and its Association with Outcomes in Continuous-Flow Left Ventricular Assist Device Patients

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SUPPLEMENTAL MATERIAL

Supplemental Table 1. Laboratory Values and Hemodynamics at Implant by Psychosocial Risk Status

<u>Variable</u>	<u>Overall</u> (n=15403, 100%)	<u>Psychosocial Risk</u> (n=3163, 20.5%)	<u>No Psychosocial Risk</u> (n=12240, 79.5%)	<u>p-value</u>
<i>Psychosocial Risk Domains</i>				
WBC (x10/uL)	8.8 ± 4.2	8.9 ± 4.3	8.7 ± 4.1	0.177
Hemoglobin (g/dL)	11.2 ± 2.2	11.2 ± 2.2	11.2 ± 2.2	0.764
Platelet (x10/uL)	195.3 ± 80.4	202.0 ± 82.1	193.5 ± 79.9	<0.001
Sodium (mEq/dL)	135.1 ± 4.8	134.7 ± 5.0	135.2 ± 4.8	<0.001
BUN (mg/dL)	29.1 ± 18.0	27.9 ± 18.3	29.4 ± 17.9	<0.001
Creatinine (mg/dL)	1.39 ± 0.68	1.35 ± 0.65	1.40 ± 0.69	0.001
Albumin (g/dL)	3.40 ± 0.65	3.40 ± 0.65	3.39 ± 0.64	0.433
Total Bilirubin (mg/dL)	1.41 ± 1.98	1.44 ± 2.05	1.40 ± 1.97	0.318
AST (u/L)	57.5 ± 221	54.5 ± 143	58.3 ± 238	0.405
ALT (u/L)	67.2 ± 223	66.8 ± 176	67.3 ± 234	0.910
INR	1.31 ± 0.39	1.29 ± 0.37	1.31 ± 0.39	0.010
BNP (pg/mL)	1153 ± 1090	1193 ± 1166	1141 ± 1067	0.108
<i>Hemodynamics</i>				
HR (bpm)	89 ± 18	91 ± 18	89 ± 18	<0.001
SBP (mmHg)	106 ± 16	105 ± 16	106 ± 16	0.011
DBP (mmHg)	65 ± 12	66 ± 12	65 ± 12	0.008
CVP (mmHg)	13.4 ± 8.5	14.0 ± 8.7	13.2 ± 8.5	<0.001
PA Systolic (mmHg)	49.8 ± 14.8	49.9 ± 14.6	49.7 ± 14.8	0.588
PA Diastolic (mmHg)	24.9 ± 8.8	25.7 ± 9.1	24.7 ± 8.7	<0.001
PCWP (mmHg)	25.0 ± 9.2	25.4 ± 9.2	24.9 ± 9.2	0.056
PAPi	3.00 ± 3.26	2.79 ± 3.09	3.06 ± 3.30	0.001
CVP / PCWP	0.55 ± 0.43	0.58 ± 0.52	0.55 ± 0.41	0.025

ALT = alanine aminotransferase; AST = aspartate aminotransferase; BNP = brain natriuretic peptide; BUN = blood urea nitrogen; CVP = central venous pressure; DBP = diastolic blood pressure; HR = heart rate; INR = international normalized ratio; PA = pulmonary artery; PAPi = pulmonary artery pulsatility index; PCWP = pulmonary capillary wedge pressure; SBP = systolic blood pressure WBC = white blood cell count

Supplemental Table 2.

LVAD Outcomes	Unadjusted Cox Regression		Adjusted Cox Regression*	
	HR (95% CI)	p-value	HR (95% CI)	p-value
Survival on pump support				
0 Psychosocial Risk Factor	1.15 (1.05 – 1.26)	0.004	0.99 (0.90 – 1.09)	0.842
1 Psychosocial Risk Factor	...	...	...	...
2+ Psychosocial Risk Factors	0.87 (0.72 – 1.05)	0.137	0.93 (0.77 – 1.13)	0.467
Cardiac Transplantation				
0 Psychosocial Risk Factor	1.16 (1.05 – 1.27)	0.002	1.16 (1.05 – 1.28)	0.003
1 Psychosocial Risk Factor	...	...	...	...
2+ Psychosocial Risk Factors	0.80 (0.67 – 0.97)	0.021	0.83 (0.68 – 1.01)	0.060
Device Related Infection				
0 Psychosocial Risk Factor	0.76 (0.69 – 0.85)	<0.001	0.82 (0.73 – 0.91)	<0.001
1 Psychosocial Risk Factor	...	...	...	...
2+ Psychosocial Risk Factors	1.29 (1.08 – 1.53)	0.004	1.22 (1.02 – 1.46)	0.034
Gastrointestinal Bleeding				
0 Psychosocial Risk Factor	1.03 (0.94 – 1.12)	0.546	0.85 (0.77 – 0.93)	<0.001
1 Psychosocial Risk Factor	...	...	...	...
2+ Psychosocial Risk Factors	1.01 (0.86 – 1.19)	0.918	1.10 (0.93 – 1.30)	0.270
Device Thrombosis (Suspected or Confirmed)				
0 Psychosocial Risk Factor	0.83 (0.74 – 0.94)	0.002	0.87 (0.77 – 0.99)	0.031
1 Psychosocial Risk Factor	...	...	...	...
2+ Psychosocial Risk Factors	1.22 (1.00 – 1.49)	0.054	1.15 (0.93 – 1.41)	0.210
Stroke (Ischemic or Hemorrhagic)				
0 Psychosocial Risk Factor	0.98 (0.87 – 1.09)	0.656	0.89 (0.79 – 1.00)	0.059
1 Psychosocial Risk Factor	...	...	...	...
2+ Psychosocial Risk Factors	0.96 (0.78 – 1.18)	0.695	0.94 (0.76 – 1.18)	0.600
Hospital Readmission				
0 Psychosocial Risk Factor	0.94 (0.90 – 0.99)	0.022	0.90 (0.85 – 0.95)	<0.001
1 Psychosocial Risk Factor	...	...	...	...
2+ Psychosocial Risk Factors	1.06 (0.96 – 1.16)	0.234	1.08 (0.98 – 1.19)	0.104