

## Supplemental Material

**Supplemental Table 1.** Unadjusted and adjusted hazard ratios for sustained VT and ICD shock recurrence after CSD.

<b>Sustained VT/ICD Shock Recurrence</b>				
<b>Effect</b>	<b>Unadjusted HR (95% CI)</b>	<b>P value</b>	<b>Adjusted HR (95% CI)</b>	<b>P value</b>
Age (y)	1.02 (1.00, 1.04)	0.09	0.99 (0.96, 1.02)	0.42
Female	0.69 (0.34, 1.37)	0.29	0.95 (0.40, 2.29)	0.92
NYHA (Ref = I)		<b>0.004</b>		<b>0.01</b>
II	3.73 (0.88, 15.85)	<b>0.075</b>	3.96 (0.87, 18.10)	<b>0.078</b>
III	3.01 (0.70, 12.98)	0.14	7.40 (1.58, 34.68)	<b>0.01</b>
IV	13.51 (2.65, 68.94)	<b>0.002</b>	15.04 (2.72, 83.20)	<b>0.002</b>
Polymorphic VT	0.62 (0.33, 1.18)	0.15	1.11 (0.50, 2.47)	0.80
>1 VT Morphology	1.70 (0.92, 3.12)	<b>0.088</b>	0.80 (0.36, 1.74)	0.57
Longest VT CL (20ms)	1.12 (1.06, 1.18)	<b>&lt;0.001</b>	1.13 (1.04, 1.22)	<b>0.003</b>
# Previous VT Ablations	1.13 (0.97, 1.32)	0.13	0.86 (0.68, 1.11)	0.24
CKD	1.99 (1.08, 3.67)	<b>0.028</b>	1.07 (0.45, 2.53)	0.89
>1 AAD	2.08 (1.18, 3.66)	<b>0.011</b>	1.29 (0.62, 2.69)	0.50
Left Only	1.54 (0.80, 2.94)	0.19	1.03 (0.48, 2.23)	0.94

OHT = orthotopic heart transplantation, ICM = ischemic cardiomyopathy, NICM = non-ischemic cardiomyopathy, NYHA = New York Heart Association, AAD = anti-arrhythmic drug, CL = cycle length, DM = diabetes mellitus, CKD = chronic kidney disease, Ref = reference class used for comparison of other classes. Highlighted p values represent those where baseline comparisons yielded a value < 0.1.

**Supplemental Table 2.** Unadjusted and adjusted hazard ratios for combined endpoint of cardiac transplantation and death.

<b>Death/OHT</b>				
<b>Effect</b>	<b>Unadjusted HR (95% CI)</b>	<b>P value</b>	<b>Adjusted HR (95% CI)</b>	<b>P value</b>
Age (y)	1.05 (1.02, 1.09)	< <b>0.001</b>	1.01 (0.97, 1.04)	0.78
Female	1.01 (0.46, 2.21)	0.98	1.39 (0.39, 4.99)	0.62
EF (%)	0.97 (0.95, 1.00)	<b>0.06</b>	0.98 (0.94, 1.01)	0.20
NYHA (Ref = Class I)		< <b>0.001</b>		<b>0.009</b>
II	0.69 (0.22, 2.18)	0.53	0.64 (0.17, 2.35)	0.50
III	0.99 (0.32, 3.05)	0.99	0.58 (0.14, 2.44)	0.46
IV	11.16 (3.17, 39.30)	< <b>0.001</b>	5.44 (1.27, 23.29)	<b>0.022</b>
>1 VT Morphology	2.21 (1.07, 4.55)	<b>0.03</b>	2.80 (0.89, 8.81)	<b>0.08</b>
Longest VT CL (20ms)	1.06 (0.99, 1.13)	<b>0.08</b>	0.95 (0.87, 1.04)	0.24
# Previous VT Ablations	1.10 (0.91, 1.32)	0.34	0.82 (0.60, 1.11)	0.20
DM	3.01 (1.56, 5.80)	<b>0.001</b>	2.43 (0.71, 8.38)	0.16
CKD	5.74 (2.79, 11.82)	< <b>0.001</b>	4.51 (1.45, 14.04)	<b>0.009</b>
>1 AAD	2.47 (1.28, 4.78)	<b>0.007</b>	2.32 (0.88, 6.13)	0.089
Left Only	2.66 (1.37, 5.17)	<b>0.004</b>	2.65 (1.00, 7.00)	<b>0.050</b>

OHT = orthotopic heart transplantation, ICM = ischemic cardiomyopathy, NICM = non-ischemic cardiomyopathy, NYHA = New York Heart Association, AAD = anti-arrhythmic drug, CL = cycle length, DM = diabetes mellitus, CKD = chronic kidney disease, Ref = reference class used for comparison of other classes. Highlighted p values represent those where baseline comparisons yielded a value < 0.1.

**Supplemental Table 3.** Unadjusted and adjusted hazard ratios for combined endpoint of sustained VT/ICD shock recurrence, cardiac transplantation, and death.

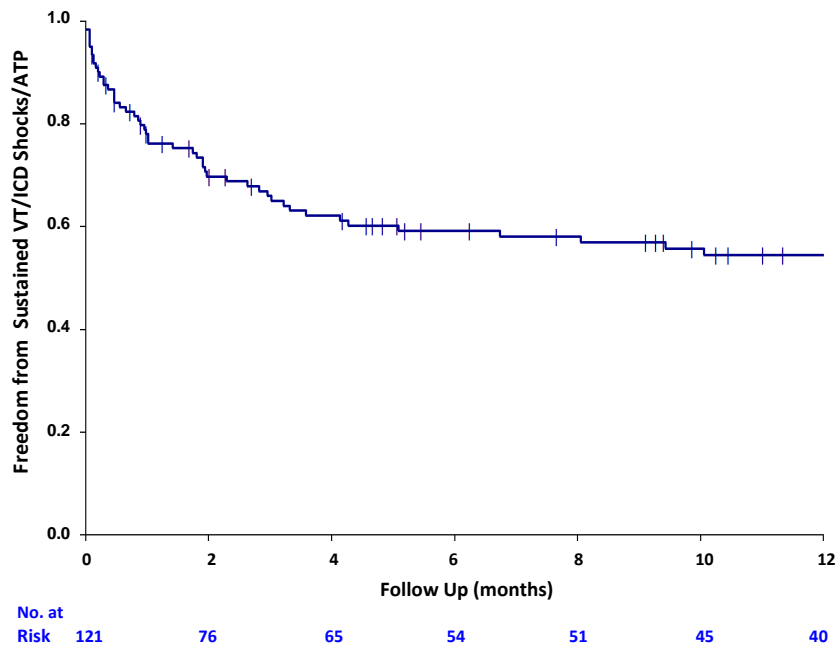
<b>VT Recurrence/Death/OHT</b>				
<b>Effect</b>	<b>Unadjusted HR (95% CI)</b>	<b>P value</b>	<b>Adjusted HR (95% CI)</b>	<b>P value</b>
Age (y)	1.03 (1.01, 1.06)	<b>0.003</b>	1.00 (0.97, 1.03)	0.93
Female	0.76 (0.42, 1.36)	0.35	0.87 (0.38, 1.95)	0.73
NYHA (Ref = I)		<b>&lt;0.001</b>		<b>0.004</b>
II	1.82 (0.70, 4.74)	0.22	1.97 (0.70, 5.57)	0.20
III	1.62 (0.62, 4.24)	0.33	4.07 (1.36, 12.18)	<b>0.012</b>
IV	8.77 (2.76, 27.90)	<b>&lt;0.001</b>	8.77 (2.49, 30.95)	<b>&lt;0.001</b>
>1 VT Morphology	1.96 (1.14, 3.36)	<b>0.015</b>	0.91 (0.43, 1.93)	0.80
Polymorphic VT	0.81 (0.47, 1.41)	0.46	1.66 (0.78, 3.54)	0.19
Longest VT CL (20ms)	1.10 (1.05, 1.16)	<b>&lt;0.001</b>	1.11 (1.03, 1.20)	<b>0.005</b>
# Previous VT Ablations	1.11 (0.97, 1.27)	0.14	0.88 (0.72, 1.08)	0.22
DM	2.18 (1.26, 3.75)	<b>0.005</b>	0.54 (0.23, 1.29)	0.17
CKD	2.67 (1.56, 4.56)	<b>&lt;0.001</b>	1.49 (0.70, 3.18)	0.30
>1 AAD	1.96 (1.20, 3.20)	<b>0.007</b>	1.16 (0.59, 2.29)	0.67
Left Only	1.93 (1.13, 3.30)	<b>0.016</b>	1.95 (1.01, 3.76)	<b>0.047</b>

OHT = orthotopic heart transplantation, ICM = ischemic cardiomyopathy, NICM = non-ischemic cardiomyopathy, NYHA = New York Heart Association, AAD = anti-arrhythmic drug, CL = cycle length, DM = diabetes mellitus, CKD = chronic kidney disease, Ref = reference class used for comparison of other classes. Highlighted p values represent those where baseline comparisons yielded a value < 0.1.

**Supplemental Table 4.** Baseline characteristics of left only vs. bilateral CSD patients.

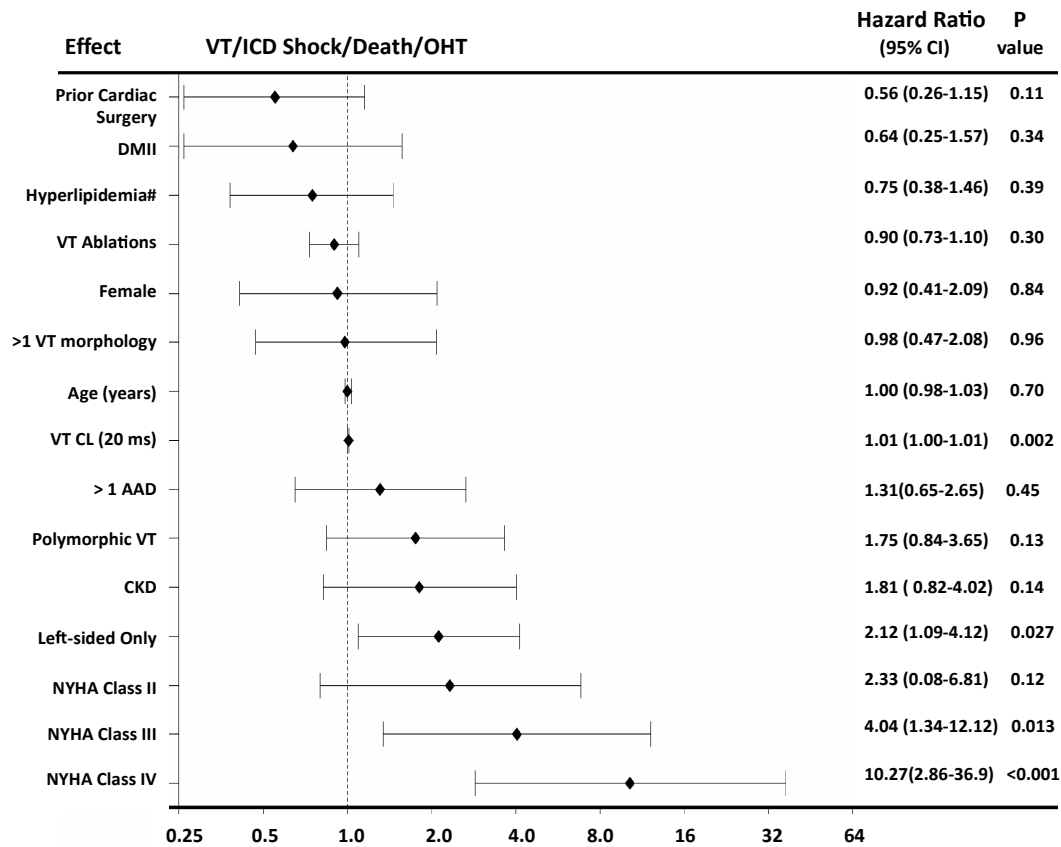
		<b>Left only</b> (N=23)	<b>Bilateral</b> (N=98)	<b>P-value</b>
<b>Age (Mean (SD))</b>		59.1 (12.3)	54.3 (13.3)	0.110
<b>Sex</b>				0.204
	F	3 (13.0%)	28 (28.6%)	
	M	20 (87.0%)	70 (71.4%)	
<b>ICM/NICM</b>				0.060
	NICM	12 (52.2%)	74 (75.5%)	
	ICM	10 (43.5%)	23 (23.5%)	
<b>EF (%) (Mean (SD))</b>		29.0 (10.5)	29.8 (13.0)	0.863
<b>NYHA Class (%)</b>				0.910
	I	2 (9.1%)	11 (11.6%)	
	II	8 (36.4%)	40 (42.1%)	
	III	10 (45.5%)	37 (38.9%)	
	IV	2 (9.1%)	7 (7.4%)	
<b>VF as part of presentation</b>		8 (34.8%)	39 (39.8%)	0.837
<b>Electrical Storm (%)</b>		16 (69.6%)	75 (76.5%)	0.669
<b>Number of Shocks or sustained VT episodes in the year prior to CSD</b>				0.321
	Mean (SD)	16.8 (15.6)	17.9 (33.3)	
	Median			
	(Q1-Q3)	11.0 (7.0-22.0)	9.5 (4.0-17.0)	
	Min-Max	1.0-60.0	0.0-300.0	
<b>VT morphology (&gt; 1 morphology)</b>		18 (78.3%)	59 (60.2%)	0.168
<b>Presence of Polymorphic VT</b>		5 (25.0%)	30 (41.7%)	0.272
<b>VT cycle length (ms)</b>				0.053
	Mean (SD)	368.0 (84.4)	324.0 (78.6)	
	Median	380.0 (307.5-	330.0 (268.0-	
	(Q1-Q3)	399.7)	377.8)	
	Min-Max	220.0-529.0	160.0-540.0	
<b>VT cycle length (ms)</b>				<b>0.027</b>
	Mean (SD)	411.7 (110.2)	348.5 (101.2)	
	Median	420.0 (315.0-	333.0 (280.0-	
	(Q1-Q3)	500.0)	400.0)	
	Min-Max	220.0-580.0	160.0-600.0	
<b># VT ablations</b>				0.526
	Mean (SD)	1.5 (1.4)	1.3 (1.4)	
	Median			
	(Q1-Q3)	1.0 (0.5-2.0)	1.0 (0.0-2.0)	
	Min-Max	0.0-6.0	0.0-8.0	
<b>Prior cardiac surgery</b>		11 (47.8%)	20 (20.4%)	<b>0.014</b>
<b>HTN</b>		17 (73.9%)	51 (52.0%)	0.095
<b>Hyperlipidemia</b>		16 (69.6%)	37 (37.8%)	<b>0.011</b>
<b>AF</b>		7 (30.4%)	23 (23.5%)	0.669
<b>DM</b>		9 (39.1%)	14 (14.3%)	<b>0.015</b>
<b>CKD</b>		10 (52.6%)	14 (20.0%)	<b>0.011</b>
<b>&gt;1 AAD</b>		15 (65.2%)	45 (45.9%)	0.151
<b>Beta blocker therapy</b>		21 (91.3%)	90 (91.8%)	1

**Supplemental Figure 1. Freedom from sustained VT, ICD shock, and ATP**



**Supplemental Figure 1. Freedom from sustained VT, ICD shock, and ATP.** Kaplan Meier estimate for freedom from sustained VT, ICD shock, and ATP in the overall cohort at one year of follow up is shown.

**Supplemental figure 2. Pre-procedural variables associated with VT-free transplant-free survival after CSD**



**Supplemental figure 2. Pre-procedural variables associated with VT-free**

**Transplant-free survival after CSD.** Hazard ratio plot of multivariable Cox proportional hazard regression for combined end-point of sustained VT/ICD shock, cardiac transplantation, and death after adjusting for variables that were different between bilateral vs. left only CSD patients. After adjustment for these variables, left-sided only procedure, NYHA Class, and longer VT cycle length continued to be independently associated with worse outcomes after CSD. AAD = anti-arrhythmic drug, CKD = chronic kidney disease, DM = diabetes mellitus, NYHA = New York Heart Association.