

Supplementary Table 1: Recipient Demographics and Base Characteristics

Variable	Overall (n=39,868)	ODOR (n=581)	ODYR (n=469)	YDOR (n=13,825)	YDOR (n=24,993)	P-Value
Age (Years)	56 (46, 63)	66 (63, 69)	54 (48, 57)	65 (63, 68)	49 (39, 55)	<0.001
Male Sex	30,496 (73.8%)	448 (77.1%)	315 (67.2%)	10,910 (78.9%)	17,708 (70.9%)	<0.001
Race						<0.001
White	26,555 (64.2%)	437 (75.2%)	304 (64.8%)	10,133 (73.3%)	14,645 (58.6%)	
Black	9,130 (22.1%)	90 (15.5%)	95 (20.3%)	2,208 (16%)	6,474 (25.9%)	
Hispanic	3,749 (9.1%)	30 (5.2%)	44 (9.4%)	937 (6.8%)	2,607 (10.4%)	
Asian	1,422 (3.4%)	20 (3.4%)	18 (3.8%)	425 (3.1%)	920 (3.7%)	
Other	494 (1.2%)	4 (0.7%)	8 (1.7%)	122 (0.9%)	347 (1.4%)	
BMI (kg/m2)	27.3 (23.9, 31)	27.1 (23.5, 29.9)	27.5 (24.1, 30.9)	26.8 (23.8, 30)	27.6 (23.9, 31.6)	< 0.001
Weight	82.6 (70.8, 95.5)	80.7 (70, 92.1)	82.6 (68.5, 97.4)	81.6 (71.2, 93.2)	83.4 (70.3, 97.1)	< 0.001
Diabetes	11,506 (27.9%)	171 (29.6%)	131 (28.1%)	4,787 (34.8%)	5,873 (23.6%)	< 0.001
Creatinine (mg/dL)	1.1 (0.9, 1.4)	1.3 (1, 1.6)	1.1 (0.9, 1.4)	1.2 (1, 1.5)	1.1 (0.9, 1.4)	< 0.001
GFR (mL/min/1.73m2)	62 (47.2, 82.6)	51.1 (39.6, 65.2)	65.1 (48.2, 83.4)	53.9 (41.9, 68.6)	68.4 (52.4, 91.4)	< 0.001
Pre-Operative Dialysis	903 (2.2%)	8 (1.4%)	13 (2.8%)	230 (1.7%)	620 (2.5%)	< 0.001
Diagnosis						< 0.001
Ischemic Dilated Cardiomyopathy	13,666 (33.1%)	273 (47.2%)	142 (30.3%)	6,569 (47.6%)	6,054 (24.3%)	
Non-Ischemic Dilated Cardiomyopathy	21,822 (52.9%)	238 (41.2%)	238 (50.9%)	5,739 (41.6%)	14,905 (59.8%)	
Other	5,701 (13.8%)	67 (11.6%)	88 (18.8%)	1,467 (10.6%)	3,927 (15.8%)	
IV Inotrope Requirement	15,807 (38.2%)	221 (38%)	194 (41.4%)	5,337 (38.6%)	9,480 (37.9%)	0.293
Mean Pulmonary Artery Pressure (mm Hg)	26 (20, 34)	26 (20, 33)	26 (18, 34)	26 (20, 33)	27 (20, 35)	0.007
Cardiac Output	4.3 (3.5, 5.3)	4.2 (3.5, 5.2)	4.3 (3.3, 5.3)	4.3 (3.5, 5.2)	4.3 (3.4, 5.3)	0.301
PCWP	17 (11, 24)	18 (11, 24)	16 (11, 24)	17 (11, 23)	18 (11, 25)	< 0.001
Days On Wait List	62 (16, 223)	65 (16, 228)	58 (17, 207)	61 (16, 226)	62 (17, 220)	0.772
Pre-Operative Mechanical Support						< 0.001
No Mechanical Support	19,001 (46%)	339 (58.3%)	259 (55.2%)	6,577 (47.6%)	11,119 (44.5%)	
Durable LVAD	13,058 (31.6%)	156 (26.9%)	127 (27.1%)	4,247 (30.7%)	8,065 (32.3%)	
Pre IABP	5,635 (13.6%)	60 (10.3%)	48 (10.2%)	2,108 (15.2%)	3,215 (12.9%)	
Temporary VAD	1,237 (3%)	8 (1.4%)	12 (2.6%)	414 (3%)	767 (3.1%)	
BIVAD	841 (2%)	8 (1.4%)	10 (2.1%)	152 (1.1%)	647 (2.6%)	
TAH	281 (0.7%)	1 (0.2%)	0 (0%)	52 (0.4%)	212 (0.8%)	
ECMO	1,297 (3.1%)	9 (1.5%)	13 (2.8%)	275 (2%)	968 (3.9%)	
Status						< 0.001
Status 1A (Pre-2018)	6,349 (15.4%)	68 (11.7%)	89 (19%)	1,868 (13.5%)	4,107 (16.4%)	
Status 1B (Pre-2018)	11,880 (28.7%)	167 (28.7%)	130 (27.7%)	3,923 (28.4%)	7,253 (29%)	

Status 2 (Pre-2018)	7,843 (19%)	158 (27.2%)	136 (29%)	2,700 (19.5%)	4,512 (18.1%)	
Status 1	865 (2.1%)	2 (0.3%)	4 (0.9%)	177 (1.3%)	656 (2.6%)	
Status 2	4,753 (11.5%)	38 (6.5%)	24 (5.1%)	1,647 (11.9%)	2,904 (11.6%)	
Status 3	1,788 (4.3%)	22 (3.8%)	14 (3%)	559 (4%)	1,120 (4.5%)	
Status 4	4,642 (11.2%)	76 (13.1%)	42 (9%)	1,611 (11.7%)	2,743 (11%)	
Status 5	21 (0.1%)	0 (0%)	2 (0.4%)	9 (0.1%)	9 (0%)	
Status 6	2,541 (6.1%)	40 (6.9%)	20 (4.3%)	1,131 (8.2%)	1,263 (5.1%)	
Inactive	664 (1.6%)	10 (1.7%)	8 (1.7%)	199 (1.4%)	424 (1.7%)	
Hospitalization Prior to Transplant						< 0.001
Not Hospitalized	18,833 (46%)	332 (57.5%)	239 (51.3%)	6,531 (47.7%)	11,056 (44.7%)	
Hospitalized	6,202 (15.1%)	84 (14.6%)	63 (13.5%)	1,929 (14.1%)	3,905 (15.8%)	
In ICU	15,927 (38.9%)	161 (27.9%)	164 (35.2%)	5,225 (38.2%)	9,799 (39.6%)	

Values are reported as median, IQR (interquartile range) or mean, SD (standard deviation) or n, % (categorical variables). BMI, body mass index; BIVAD; Bi-ventricular assist device; ECMO, extracorporeal membrane oxygenation; GFR, glomerular filtration rate; IABP, intra-aortic balloon pump; LVAD, left-ventricular assist device; PCWP, pulmonary capillary wedge pressure; VAD, ventricular assist device.

Supplementary Table 2: Donor Characteristics

Variable	Overall (39,868)	ODOR (581)	ODYR (469)	YDOR (13,825)	YDOR (24,993)	P-Value
Age	31 (23, 40)	57 (56, 59)	57 (56, 58)	32 (24, 41)	30 (22, 38)	< 0.001
Male Sex	29,469 (71.3%)	358 (61.6%)	259 (55.2%)	9,872 (71.4%)	17,916 (71.7%)	< 0.001
Ethnicity						< 0.001
White	26,402 (63.9%)	424 (73%)	332 (70.8%)	8,877 (64.2%)	15,820 (63.3%)	
Black	6,704 (16.2%)	63 (10.8%)	66 (14.1%)	2,221 (16.1%)	4,128 (16.5%)	
Hispanic	7,071 (17.1%)	77 (13.3%)	62 (13.2%)	2,327 (16.8%)	4,343 (17.4%)	
Asian	691 (1.7%)	13 (2.2%)	8 (1.7%)	232 (1.7%)	413 (1.7%)	
Other	482 (1.2%)	4 (0.7%)	1 (0.2%)	168 (1.2%)	289 (1.2%)	
CDC High Risk	9,205 (22.3%)	50 (8.6%)	35 (7.5%)	3,234 (23.5%)	5,537 (22.2%)	< 0.001
Coronary Artery Disease	1,249 (3%)	58 (10.1%)	34 (7.3%)	465 (3.4%)	646 (2.6%)	< 0.001
Smoking History	5,316 (13.1%)	144 (25.6%)	116 (25.3%)	1,927 (14.2%)	2,925 (11.9%)	< 0.001
Recent Cocaine Use	8,460 (22%)	80 (14.6%)	58 (12.9%)	2,962 (23.1%)	5,050 (21.7%)	< 0.001
Diabetes	1,546 (3.8%)	52 (9%)	44 (9.4%)	541 (3.9%)	843 (3.4%)	< 0.001
HgbA1C	5.3 (5.1, 5.5)	5.6 (5.2, 5.8)	5.5 (5.4, 5.7)	5.3 (5.1, 5.6)	5.3 (5.1, 5.5)	< 0.001
Diabetes Duration						0.128
0-5 Years	758 (55%)	31 (62%)	28 (70%)	242 (51.3%)	426 (56.3%)	
6-10 Years	233 (16.9%)	9 (18%)	7 (17.5%)	87 (18.4%)	123 (16.3%)	
> 10 Years	386 (28%)	10 (20%)	5 (12.5%)	143 (30.3%)	207 (27.4%)	
Hypertension	6,306 (15.4%)	242 (41.9%)	192 (41.1%)	2,264 (16.5%)	3,384 (13.7%)	< 0.001
BMI	26.6 (23.4, 30.7)	27.7 (24.6, 31.2)	27.6 (24.5, 31.2)	26.6 (23.4, 30.7)	26.5 (23.3, 30.7)	< 0.001
Donor Cause of Death						< 0.001
Neuro (Seizure/CVA)	7,887 (19.1%)	292 (50.3%)	255 (54.5%)	2,668 (19.3%)	4,390 (17.6%)	
Drug Overdose	6,787 (16.4%)	27 (4.6%)	24 (5.1%)	2,397 (17.3%)	4,095 (16.4%)	
Asphyxiation	2,238 (5.4%)	18 (3.1%)	9 (1.9%)	769 (5.6%)	1,364 (5.5%)	
Cardiovascular	3,359 (8.1%)	44 (7.6%)	47 (10%)	1,203 (8.7%)	1,943 (7.8%)	
Trauma (GSW/Stab/Blunt)	19,092 (46.2%)	179 (30.8%)	122 (26.1%)	6,132 (44.4%)	11,970 (47.9%)	
Drowning	240 (0.6%)	1 (0.2%)	1 (0.2%)	79 (0.6%)	151 (0.6%)	
Other	1,739 (4.2%)	20 (3.4%)	10 (2.1%)	576 (4.2%)	1,074 (4.3%)	
Bloodstream Infection	3,987 (9.6%)	52 (9%)	45 (9.6%)	1,343 (9.7%)	2,407 (9.6%)	0.939
Clinical Infection	29,383 (72.1%)	405 (71.2%)	301 (65.4%)	10,037 (73.6%)	17,590 (71.5%)	< 0.001
Pulmonary Infection	26,560 (64.2%)	361 (62.1%)	269 (57.4%)	9,100 (65.8%)	15,869 (63.5%)	< 0.001
Creatinine	1 (0.8, 1.5)	1 (0.7, 1.3)	1 (0.7, 1.3)	1 (0.8, 1.5)	1 (0.8, 1.5)	0.002

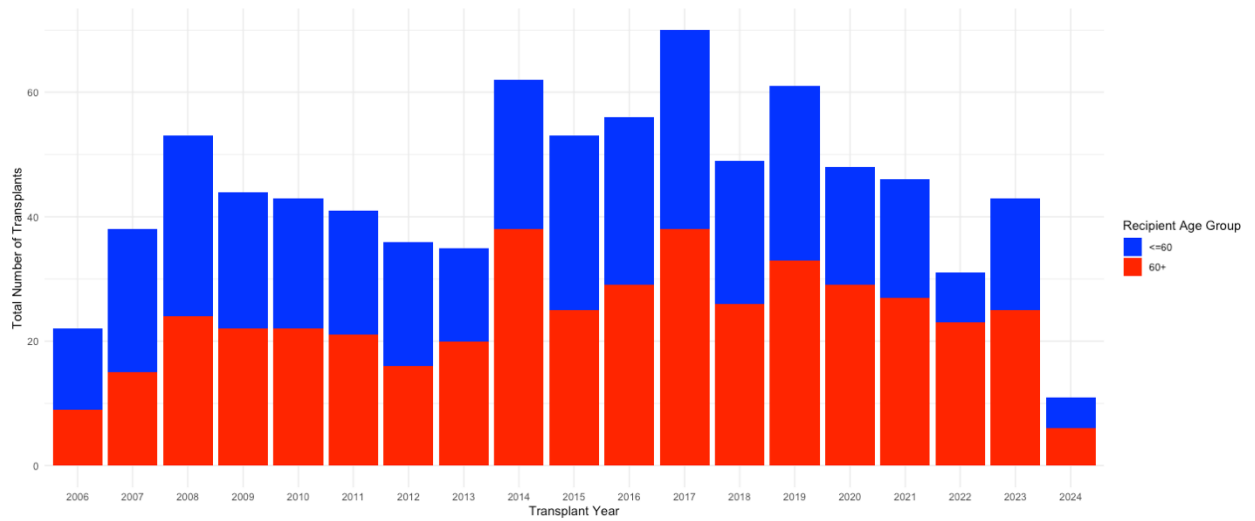
Alcohol Use	7,224 (17.9%)	127 (22.3%)	114 (24.5%)	2,538 (18.9%)	4,176 (17.2%)	< 0.001
Extracranial Cancer	70 (0.2%)	4 (0.7%)	2 (0.4%)	32 (0.2%)	31 (0.1%)	0.001
MI History	305 (0.7%)	5 (0.9%)	6 (1.3%)	104 (0.8%)	177 (0.7%)	0.504
Inotrope Use	16,238 (39.7%)	262 (45.9%)	226 (48.9%)	5,260 (38.4%)	9,878 (39.9%)	< 0.001

Values are reported as median, IQR (interquartile range) or mean, SD (standard deviation) or n, % (categorical variables). BMI, body mass index; CDC, Center for Disease Control; CVA, cerebrovascular accident; GSW, gunshot wound; MI, myocardial infarction

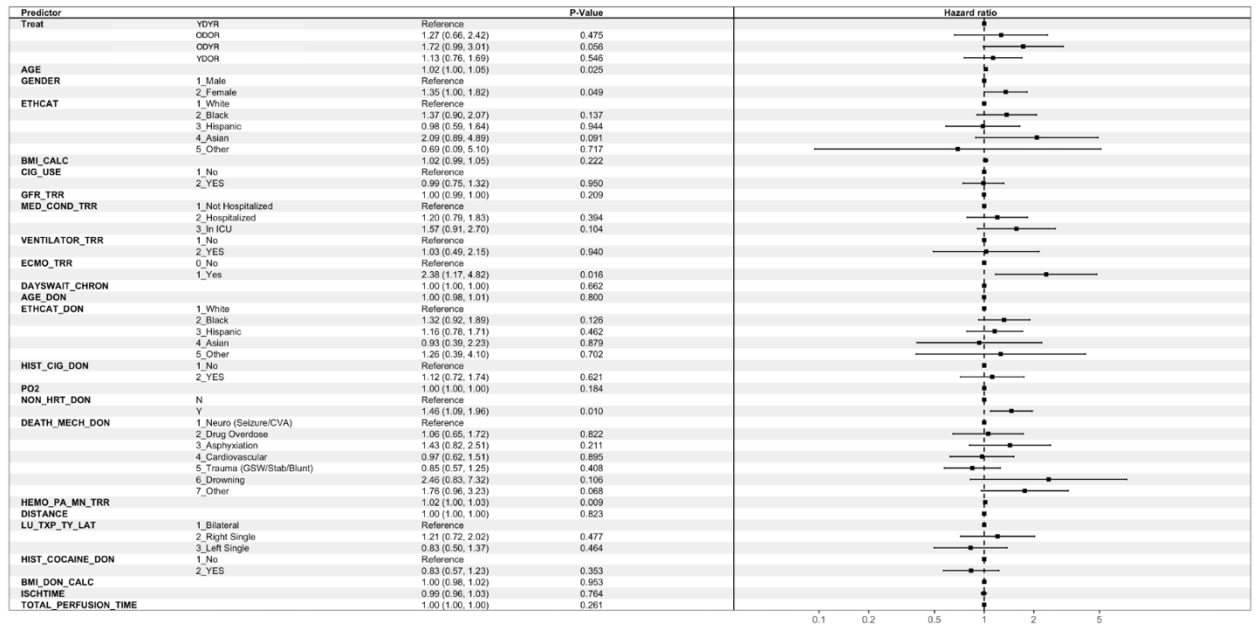
Supplementary Table 3. Operative Characteristics and Outcomes

Variable	Overall (39,868)	ODOR (581)	ODYR (469)	YDOR (13,825)	YDOR (24,993)	P- Value
Average Yearly Center Volume	24.9 (16.7, 38.8)	28.4 (18.3, 47.1)	30 (18.8, 47.1)	24.9 (16.8, 38.8)	24.2 (16.5, 38.8)	< 0.001
Distance Traveled (Nautical Miles)	156 (27, 350)	165 (30, 386)	107 (23, 353)	154 (27, 351)	157 (27, 350)	0.188
Ischemia Time (Hours)	3.3 (2.6, 3.9)	3.4 (2.7, 4)	3.3 (2.5, 4)	3.3 (2.6, 3.9)	3.3 (2.6, 3.9)	0.242
Length of Stay (Days)	15 (11, 23)	17 (12, 28)	16 (11, 25)	16 (11, 25)	15 (11, 23)	< 0.001
Postoperative Dialysis	4,986 (12.2%)	99 (17.3%)	70 (15.1%)	1,785 (13.1%)	2,855 (11.6%)	< 0.001
Postoperative Stroke	1,287 (3.2%)	18 (3.1%)	13 (2.8%)	470 (3.5%)	727 (3%)	0.061
Postoperative Pacemaker	1,040 (2.6%)	33 (5.8%)	23 (5%)	339 (2.5%)	608 (2.5%)	< 0.001
Acute Rejection Before Discharge						< 0.001
Yes--Treated with Immunosuppressant	4,200 (10.3%)	38 (6.6%)	50 (10.8%)	1,018 (7.5%)	2,966 (12%)	
Yes--Not Treated with Immunosuppressant	3,193 (7.8%)	55 (9.6%)	49 (10.6%)	1,059 (7.8%)	1,922 (7.8%)	
In Hospital Mortality	1,748 (4.4%)	49 (8.7%)	27 (6%)	712 (5.3%)	903 (3.7%)	< 0.001
Acute Rejection Before Discharge (Simple)	7,393 (18.1%)	93 (16.2%)	99 (21.3%)	2,077 (15.2%)	4,888 (19.8%)	< 0.001
Treated for Rejection in 1st Year	6,183 (18.8%)	48 (11.1%)	77 (20.3%)	1,601 (14.9%)	4,256 (21.1%)	< 0.001
Cause of Death						< 0.001
Cardio/Cerebrovascular	2,458 (25%)	39 (17.2%)	41 (30.4%)	650 (17.1%)	1,651 (31.2%)	
Graft Failure-Acute Rejection	371 (3.8%)	10 (4.4%)	1 (0.7%)	58 (1.5%)	296 (5.6%)	
Graft Failure-Chronic Rejection	259 (2.6%)	3 (1.3%)	0 (0%)	49 (1.3%)	201 (3.8%)	
Graft Failure-Other	143 (1.5%)	2 (0.9%)	0 (0%)	38 (1%)	101 (1.9%)	
Graft Failure-Primary	403 (4.1%)	9 (4%)	10 (7.4%)	140 (3.7%)	229 (4.3%)	
Infection	1,924 (19.5%)	52 (22.9%)	26 (19.3%)	870 (22.9%)	888 (16.8%)	
Malignancy	1,136 (11.5%)	32 (14.1%)	14 (10.4%)	611 (16.1%)	427 (8.1%)	
Pulmonary	749 (7.6%)	24 (10.6%)	10 (7.4%)	377 (9.9%)	303 (5.7%)	
Other	2,405 (24.4%)	56 (24.7%)	33 (24.4%)	1,010 (26.6%)	1,199 (22.6%)	
Cardiac Output 24 Hours	6.2 (5.1, 7.6)	6.2 (5.2, 7)	5.1 (4.6, 6.3)	6.1 (5, 7.4)	6.3 (5.2, 7.8)	0.01
Cardiac Output 72 Hours	6.4 (5.2, 7.7)	6.2 (5.3, 7.1)	5.4 (4.8, 7)	6.2 (5.2, 7.5)	6.6 (5.3, 7.8)	0.067
ECMO 24 Hours	164 (7%)	3 (9.7%)	0 (0%)	55 (6.8%)	100 (7%)	0.548
ECMO 72 Hours	126 (5.4%)	1 (3.2%)	0 (0%)	44 (5.4%)	77 (5.4%)	0.66
PGD 24 Hours	227 (11.1%)	5 (20.8%)	0 (0%)	83 (12%)	132 (10.6%)	< 0.001
PGD 72 Hours	170 (8.4%)	4 (16.7%)	1 (6.2%)	56 (8.1%)	103 (8.3%)	0.001
RA Pressure 24 Hours	11 (8, 14)	12 (7, 15)	9 (7, 11)	10 (8, 14)	12 (9, 15)	< 0.001
RA Pressure 72 Hours	12 (8, 15)	11 (8, 15.5)	14 (6, 14.5)	11 (8, 14)	12 (8, 15)	0.023

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Supplemental Figure 1 Bar graph of old/young recipients per year.



Supplemental Figure 2 Forest plot for multivariable cox regression analysis