

Supplemental Material

Table S1. Baseline characteristics stratified by type of cardiomyopathy for entire non-propensity matched cohort.

Description	Total	Amyloidosis	NICM	p-value
	n (%)	n (%)	n (%)	
All	451026	593	450433	
Demographics				
Age, mean (SD), years	65 (13.4)	68 (11.6)	65 (13.4)	<0.001
Sex female	129665 (28.7)	127 (21.4)	129538 (28.8)	<0.001
Race				<0.001
White (non-Hispanic)	338217 (75.0)	377 (63.6)	337840 (75.0)	
Black (non-Hispanic)	72839 (16.1)	186 (31.4)	72653 (16.1)	
Hispanic	28375 (6.3)	19 (3.2)	28356 (6.3)	
Other	11595 (2.6)	11 (1.9)	11584 (2.6)	
Clinical history				
Heart failure	364299 (80.8)	500 (84.3)	363799 (80.8)	0.08
NYHA class				0.001
Class I	64320 (14.3)	78 (13.2)	64242 (14.3)	
Class II	164261 (36.4)	204 (34.4)	164057 (36.4)	
Class III	207963 (46.1)	278 (46.9)	207685 (46.1)	
Class IV	12623 (2.8)	33 (5.6)	12590 (2.8)	
Syncope	75418 (16.7)	155 (26.1)	75263 (16.7)	<0.001
Family history of sudden death	16617 (3.7)	25 (4.2)	16592 (3.7)	0.71
Atrial fibrillation/flutter	132002 (29.3)	281 (47.4)	131721 (29.2)	<0.001

Ventricular tachycardia (VT)	135002 (29.9)	298 (50.3)	134704 (29.9)	<0.001
Ventricular tachycardia type				<0.001
Non-sustained VT	69603 (51.6)	199 (66.8)	69404 (51.5)	
Sustained monomorphic VT	36777 (27.2)	61 (20.5)	36716 (27.3)	
Sustained polymorphic VT	9007 (6.7)	11 (3.7)	8996 (6.7)	
Sustained monomorphic and polymorphic VT	6024(4.5)	9 (3.0)	6015 (4.5)	
Unknown	13418 (9.9)	18 (6.0)	13400 (9.9)	
Cerebrovascular disease	65347 (14.5)	58 (9.8)	65289 (14.5)	<0.001
Lung disease	95653 (21.2)	77 (13.0)	95576 (21.2)	<0.001
Diabetes mellitus	174893 (38.8)	116 (19.6)	174777 (38.8)	<0.001
Sleep Apnea	60186 (13.3)	80 (13.5)	60106 (13.3)	0.04
Current dialysis	14339 (3.2)	24 (4.0)	14315 (3.2)	0.11
Hypertension	360190 (79.9)	360 (60.7)	359830 (79.9)	<0.001
Patient life expectancy of ≥ 1 year				<0.001
No	10850 (2.4)	15 (2.5)	10835 (2.4)	
Yes	165575 (36.7)	249 (42.0)	165326 (36.7)	
Not documented	272660 (60.5)	320 (54.0)	272340 (60.5)	
Diagnostic studies				
LVEF				<0.001
≤30	322976 (71.6)	246 (41.5)	322730 (71.6)	
>30 to 40	72044 (16.0)	122 (20.6)	71922 (16.0)	

>40	49668 (11.0)	205 (34.6)	49463 (11.0)	
QRS duration (non-VT paced complex)				0.23
≤140	324745 (72.0)	445 (75.0)	324300 (72.0)	
>140	119686 (26.5)	139 (23.4)	119547 (26.5)	
Creatinine, mean (SD)	1 (1.2)	2 (1.4)	1 (1.2)	<0.001
Inducible ventricular arrhythmia on EP study	310 (11.0)	28 (5.9)	282 (12.0)	0.0003
Abnormal intraventricular conduction	1357 (47.9)	244 (51.7)	1113 (47.2)	0.19
Cardiac rhythm paced	44 (1.6)	7 (1.5)	37 (1.6)	0.89
Cardiac rhythm third degree heart block	53 (1.9)	20 (4.2)	33 (1.4)	<0.0001
Brain natriuretic peptide, mean (SD)	1111 (1468)	1244 (1617)	1072 (1421)	0.24
Medications				
ACE inhibitor	269415 (59.7)	172 (29.0)	269243 (59.8)	<0.001
Angiotensin receptor blocker	79842 (17.7)	82 (13.8)	79760 (17.7)	0.01
Aspirin	320489 (71.1)	294 (49.6)	320195 (71.1)	<0.001
Beta blocker	404455 (89.7)	369 (62.2)	404086 (89.7)	<0.001
Statin	300452 (66.6)	258 (43.5)	300194 (66.6)	<0.001
Non-statin lipid medication	38127 (8.5)	22 (3.7)	38105 (8.5)	<0.001
Clopidogrel	103730 (23.0)	42 (7.1)	103688 (23.0)	<0.001

Ticlopidine	608 (0.1)	3 (0.5)	605 (0.1)	0.01
Prasugrel	9624 (2.1)	1 (0.2)	9623 (2.1)	0.001
Antiarrhythmic agents	65577 (14.5)	116 (19.6)	65461 (14.5)	0.002
Diltiazem	7422 (1.6)	7 (1.2)	7415 (1.6)	0.37
Verapamil	1895 (0.4)	2 (0.3)	1893 (0.4)	0.76
Other calcium channel blocker	31129 (6.9)	25 (4.2)	31104 (6.9)	0.01
Digoxin	63164 (14.0)	30 (5.1)	63134 (14.0)	<0.001
Diuretic	278244 (61.7)	439 (74.0)	277805 (61.7)	<0.001
Hydralazine	24570 (5.4)	27 (4.6)	24543 (5.4)	0.34
Long acting nitroglycerin	51466 (11.4)	28 (4.7)	51438 (11.4)	<0.001
Warfarin	103859 (23.0)	215 (36.3)	103644 (23.0)	<0.001
Procedural factors				
ICD indication				0.01
Primary prevention	356999 (79.2)	445 (75.0)	356554 (79.2)	
Secondary prevention	94027 (20.8)	148 (25.0)	93879 (20.8)	
Device type				<0.001
Single chamber	139427 (30.9)	156 (26.3)	139271 (30.9)	
Dual chamber	166460 (36.9)	300 (50.6)	166160 (36.9)	
CRT-D	144185 (32.0)	135 (22.8)	144050 (32.0)	

NICM, non-ischemic cardiomyopathy; SD, standard deviation; NYHA, New York Heart Association; VT, ventricular tachycardia; ACE, angiotensin converting enzyme; EP, electrophysiology; ICD, implantable cardioverter defibrillator; CRT-D, cardiac resynchronization therapy defibrillator

Table S2. Univariate model for one-year survival among patients with cardiac amyloidosis.

Description	Hazard ratio	95% CI	p-value
All			
Demographics			
Age	1.00	0.99-1.02	0.74
Sex female	0.90	0.59-1.38	0.64
Race			
Black (non-Hispanic)	1.15	0.80-1.67	0.45
Hispanic	0.92	0.34-2.51	0.87
Other	0.37	0.05-2.63	0.32
Clinical history			
Heart failure	1.33	0.80-2.22	0.27
Duration of heart failure	1.68	1.03-2.76	0.04
<3 months			
NYHA class			
Class I	0.88	0.48-1.59	0.67
Class III	1.28	0.86-1.90	0.93
Class IV	0.96	0.41-2.27	0.67
Syncope	1.84	1.28-2.65	0.001
Family history of sudden		0.10-1.66	0.21
death	0.41		
Atrial fibrillation/flutter	1.15	0.81-1.62	0.44
Ventricular tachycardia	1.66	1.17-2.36	0.005

Cerebrovascular disease	1.98	1.25-3.14	0.004
Lung disease	1.39	0.88-2.18	0.16
Diabetes mellitus	1.41	0.96-2.07	0.08
Sleep apnea	0.87	0.48-1.57	0.65
Dialysis	3.37	1.86-6.12	0.0001
Hypertension	1.16	0.79-1.71	0.45
Patient life expectancy of ≥1 year		0.53-1.09	0.13
Diagnostic Studies			
Left ventricular ejection fraction			
>30 to 40	0.85	0.53-1.36	0.50
>40	0.91	0.59-1.40	0.67
QRS duration >140	0.73	0.47-1.14	0.16
Creatinine 1.5-2.5 mg/dL	2.01	1.33-3.03	0.0009
Creatinine >2.5 mg/dL	3.60	2.27-5.70	<0.0001
Inducible ventricular arrhythmia on EP study		0.18-1.31	
Abnormal intraventricular conduction	0.48		0.15
Paced rhythm		0.62-1.24	
Second degree heart block	0.88		0.47
Third degree heart block	1.74	0.55-5.46	0.34
	0.61	0.09-4.38	0.63
	0.93	0.38-2.26	0.86

Brain natriuretic peptide	1.00	1.00-1.00	0.12
Procedural factors			
ICD indication			
Secondary prevention	1.96	1.36-2.81	0.0003
Device type			
Single chamber	0.72	0.46-1.12	0.14
CRT-D	0.82	0.54-1.25	0.37

NYHA, New York Heart Association; ACE; angiotensin converting enzyme; EP, electrophysiology; ICD, implantable cardioverter defibrillator; CRT-D, cardiac resynchronization therapy defibrillator

Table S3. Definitions of Variables Significant in Multivariable Analysis.

Syncope	Sudden loss of consciousness with loss of postural tone, not related to anesthesia, with spontaneous recovery as reported by patient or observer
Ventricular tachycardia	Three or more consecutive complexes in duration emanating from the ventricles at a rate of >100 beats per minute
Cerebrovascular disease	History of stroke (loss of neurological function with abrupt onset and symptoms >24 hours) OR Transient ischemic attack (loss of neurological function with abrupt onset and symptoms <24 hours) OR Non-invasive/invasive carotid test with > 79% occlusion or previous carotid artery surgery/intervention for carotid artery stenosis
Diabetes mellitus	Physician diagnosis

	OR
	Fasting blood sugar greater than 126 mg/dL