Supplemental Material

Supplementary Table I. Baseline characteristics of patients by eGFR (CKD-EPI) category at Baseline

	eGFR (CKD-EPI, mL/min/1.73 m^2)				
	≥90 (n=449)	60 to <90 (n=1480)	45 to <60 (n=900)	30 to <45 (n=694)	<30 (n=205)
Age, years	53.9±10.2	65.5±10.0	69.7±9.2	72.4±8.6	73.9±8.4
Female sex	106 (23.6)	320 (21.6)	211 (23.4)	192 (27.7)	64 (31.2)
Race					
White	237 (52.8)	1036 (70.0)	662 (73.6)	542 (78.1)	150 (73.2)
Black	58 (12.9)	106 (7.2)	48 (5.3)	26 (3.7)	19 (9.3)
Asian	136 (30.3)	271 (18.3)	143 (15.9)	90 (13.0)	32 (15.6)
Other	16 (3.6)	43 (2.9)	30 (3.3)	21 (3.0)	4 (2.0)
Missing	2 (0.4)	24 (1.6)	17 (1.9)	15 (2.2)	0
Region					
North America	32 (7.1)	162 (10.9)	110 (12.2)	81 (11.7)	40 (19.5)
Latin America	189 (42.1)	549 (37.1)	275 (30.6)	207 (29.8)	65 (31.7)
Europe	95 (21.2)	499 (33.7)	373 (41.4)	314 (45.2)	71 (34.6)
Asia	81 (18.0)	212 (14.3)	108 (12.0)	67 (9.7)	25 (12.2)
Other	52 (11.6)	58 (3.9)	34 (3.8)	25 (3.6)	4 (2.0)
Time since diagnosis of heart failure, years	4.2±4.9	5.8±6.2	6.6±6.5	7.2±6.7	7.2±6.8
NYHA functional classification					
II	355 (79.1)	1126 (76.1)	668 (74.2)	515 (74.2)	135 (65.9)
III	93 (20.7)	346 (23.4)	228 (25.3)	174 (25.1)	68 (33.2)
IV	1 (0.2)	8 (0.5)	4 (0.4)	5 (0.7)	2 (1.0)
BMI, kg/m^2	27.8±5.8	27.9±5.4	27.7±5.1	28.1±5.3	28.0±5.8
Heart rate, beats/min	74.1± 12.3	71.6± 11.8	70.8±11.4	69.9±11.2	69.5±11.8
Systolic blood pressure, mm Hg	120±15.6	122±15.2	122±16.0	122±15.9	123±16.1
Diastolic blood pressure, mm Hg	75.8±10.9	74.8±10.5	73.1±11.1	72.3±10.5	71.9±11.0
LVEF, %	26.8±6.1	27.2±6.0	27.6±5.9	28.1±6.0	28.0±6.5
NT-proBNP, pg/mL, median (IQR)	1404 (839, 2507)	1634 (992, 2823)	2024 (1274, 3625)	2583 (1474, 4610)	3343 (1772, 7033)
Principal cause of heart failure					
Ischemic	169 (37.6%)	765 (51.7%)	488 (54.2%)	385 (55.5%)	121 (59.0)
Medical history					
HHF in last 12 months	155 (34.5)	448 (30.3)	264 (29.3)	218 (31.4)	66 (32.2)
Atrial fibrillation*	72 (16.0)	481 (32.5)	397 (44.1)	329 (47.4)	90 (43.9)
Hypertension	264 (58.8)	1026 (69.3)	678 (75.3)	551 (79.4)	178 (86.8)
Diabetes	237 (52.8)	678 (45.8)	457 (50.8)	364 (52.4)	118 (57.6)
UACR, mg/g, median (IQR)	19 (7, 72)	18 (7, 67)	25 (10, 91)	30 (10, 91)	38 (13, 262)
Device therapy					
Implantable cardioverter-defibrillator†	70 (15.6)	429 (29.0)	333 (37.0)	273 (39.3)	65 (31.7)
Cardiac resynchronization therapy‡	15 (3.3)	120 (8.1)	124 (13.8)	153 (22.0)	30 (14.6)
Heart failure medication					
ACE inhibitor	228 (50.8)	726 (49.1)	404 (44.9)	279 (40.2)	66 (32.2)
ARB§	96 (21.4)	360 (24.3)	208 (23.1)	181 (26.1)	62 (30.2)

	eGFR (CKD-EPI, mL/min/1.73 m^2)				
	≥90 (n=449)	60 to <90 (n=1480)	45 to <60 (n=900)	30 to <45 (n=694)	<30 (n=205)
ARNI	87 (19.4)	279 (18.9)	184 (20.4)	143 (20.6)	34 (16.6)
Diuretics§§	378 (84.2)	1237 (83.6)	794 (88.2)	641 (92.4)	197 (96.1)
MRA	368 (82.0)	1082 (73.1)	656 (72.9)	444 (64.0)	109 (53.2)
Beta blocker	420 (93.5)	1409 (95.2)	848 (94.2)	659 (95.0)	196 (95.6)
Cardiac glycosides	85 (18.9)	253 (17.1)	145 (16.1)	88 (12.7)	23 (11.2)
Nitrates	43 (9.6)	174 (11.8)	120 (13.3)	112 (16.1)	47 (22.9)
Ivabradine	48 (10.7)	100 (6.8)	58 (6.4)	40 (5.8)	14 (6.8)
Hydralazine	11 (2.4)	35 (2.4)	31 (3.4)	27 (3.9)	22 (10.7)
Other medication					
Lipid-lowering drugs	276 (61.5)	1006 (68.0)	647 (71.9)	530 (76.4)	153 (74.6)
Anti-thrombotic drugs	314 (69.9)	1178 (79.6)	778 (86.4)	615 (88.6)	180 (87.8)

Data are n (%) or mean±SD for randomized patients, unless otherwise stated. ACE indicates angiotensin-converting enzyme; ARB, angiotensin-receptor blocker; ARNI, angiotensin-receptor neprilysin inhibitor; BMI, body mass index; CKD, chronic kidney disease; CKD-EPI, Chronic Kidney Disease Epidemiology Collaboration equation; eGFR, estimated glomerular filtration rate; HHF, hospitalization for heart failure; LVEF, left ventricular ejection fraction; MRA, mineralocorticoid receptor antagonist; NT-pro BNP, N-terminal pro-natriuretic brain peptide; NYHA, New York Heart Association; SBP, systolic blood pressure; and UACR, urine albumin-to-creatinine ratio. *Atrial fibrillation reported in any electrocardiogram before treatment intake or history of atrial fibrillation reported as medical history. †Implantable cardioverter defibrillator with or without cardiac resynchronization therapy. ‡Cardiac resynchronization therapy with or without a defibrillator. §Excluding valsartan when taken with sacubitril because sacubitril/valsartan is shown as ARNI. §§Diuretics other than MRAs.

Supplementary Table II. Baseline characteristics of patients by UACR category at baseline

	UACR (mg/g)		
	<30 **(n=2078)**	**30 to ≤300** **(n=1236)**	**>300** **(n=396)**
Age, years	66.9±11.2	67.5±10.8	64.0±10.5
Female sex	532 (25.6)	280 (22.7)	77 (19.4)
Race			
White	1499 (72.1)	856 (69.3)	257 (64.9)
Black	133 (6.4)	91 (7.4)	33 (8.3)
Asian	356 (17.1)	231 (18.7)	85 (21.5)
Other	61 (2.9)	38 (3.1)	15 (3.8)
Missing	29 (1.4)	20 (1.6)	6 (1.5)
Region			
North America	207 (10.0)	169 (13.7)	48 (12.1)
Latin America	676 (32.5)	439 (35.5)	168 (42.4)
Europe	834 (40.1)	404 (32.7)	99 (25.0)
Asia	256 (12.3)	176 (14.2)	61 (15.4)
Other	105 (5.1)	48 (3.9)	20 (5.1)
Time since diagnosis of heart failure, years	6.0±6.3	6.4±6.5	5.9±5.7
NYHA functional classification			
II	1627 (78.3)	887 (71.8)	274 (69.2)
III	443 (21.3)	342 (27.7)	117 (29.5)
IV	8 (0.4)	7 (0.6)	5 (1.3)
BMI, kg/m^2	27.65±5.25	27.95±5.57	28.78±5.51
Heart rate, beats/min	69.9±11.2	72.8±12.1	74.1±12.3
Systolic blood pressure, mm Hg	120.0±14.5	122.2±16.1	131.2±16.9
Diastolic blood pressure, mm Hg	72.6±10.3	74.4±10.9	79.5±11.4
LVEF, %	27.4±5.9	27.4±6.1	28.1±6.2
NT-proBNP, pg/mL, median (IQR)	1584 (941, 2712)	2323 (1367, 4287)	2975 (1633, 5960)
Principal cause of heart failure			
Ischemic	1070 (51.5)	642 (51.9)	203 (51.3)
Medical history			
HHF in last 12 months	617 (29.7)	391 (31.6)	139 (35.1)
Atrial fibrillation*	721 (34.7)	510 (41.3)	131 (33.1)
Hypertension	1426 (68.6)	943 (76.3)	317 (80.1)
Diabetes	849 (40.9)	720 (58.3)	275 (69.4)
eGFR (CKD-EPI), mL/min/1.73 m^2	64.0±21.3	60.0±21.1	58.5±23.6
eGFR (CKD-EPI) <60 mL/min/1.73 m^2	908 (43.7)	660 (53.4)	217 (54.8)
Device therapy			
Implantable cardioverter-defibrillator[†]	688 (33.1)	386 (31.2)	89 (22.5)
Cardiac resynchronization therapy[‡]	252 (12.1)	152 (12.3)	34 (8.6)
Heart failure medication			
ACE inhibitor	1026 (49.4)	530 (42.9)	141 (35.6)
ARB[§]	466 (22.4)	315 (25.5)	122 (30.8)
ARNI	382 (18.4)	266 (21.5)	75 (18.9)
Diuretics[§§]	1792 (86.2)	1087 (87.9)	352 (88.9)
MRA	1552 (74.7)	852 (68.9)	242 (61.1)
Beta blocker	1965 (94.6)	1174 (95.0)	377 (95.2)
Cardiac glycosides	300 (14.4)	209 (16.9)	84 (21.2)
Nitrates	235 (11.3)	183 (14.8)	75 (18.9)
Ivabradine	145 (7.0)	84 (6.8)	29 (7.3)
Hydralazine	39 (1.9)	54 (4.4)	32 (8.1)
Other medication			

	UACR (mg/g)		
	<30 **(n=2078)**	**30 to ≤300** **(n=1236)**	**>300** **(n=396)**
Lipid-lowering drugs	1444 (69.5)	869 (70.3)	286 (72.2)
Anti-thrombotic drugs	1690 (81.3)	1029 (83.3)	332 (83.8)

Data are n (%) or mean±SD for randomized patients, unless otherwise stated. ACE indicates angiotensin-converting enzyme; ARB, angiotensin-receptor blocker; ARNI, angiotensin-receptor neprilysin inhibitor; BMI, body mass index; CKD, chronic kidney disease; CKD-EPI, Chronic Kidney Disease Epidemiology Collaboration equation; eGFR, estimated glomerular filtration rate; HHF, hospitalization for heart failure; LVEF, left ventricular ejection fraction; MRA, mineralocorticoid receptor antagonist; NT-pro BNP, N-terminal pro-natriuretic brain peptide; NYHA, New York Heart Association; SBP, systolic blood pressure; and UACR, urine albumin-to-creatinine ratio. *Atrial fibrillation reported in any electrocardiogram before treatment intake or history of atrial fibrillation reported as medical history. †Implantable cardioverter defibrillator with or without cardiac resynchronization therapy. ‡Cardiac resynchronization therapy with or without a defibrillator. §Excluding valsartan when taken with sacubitril because sacubitril/valsartan is shown as ARNI. §§Diuretics other than MRAs.