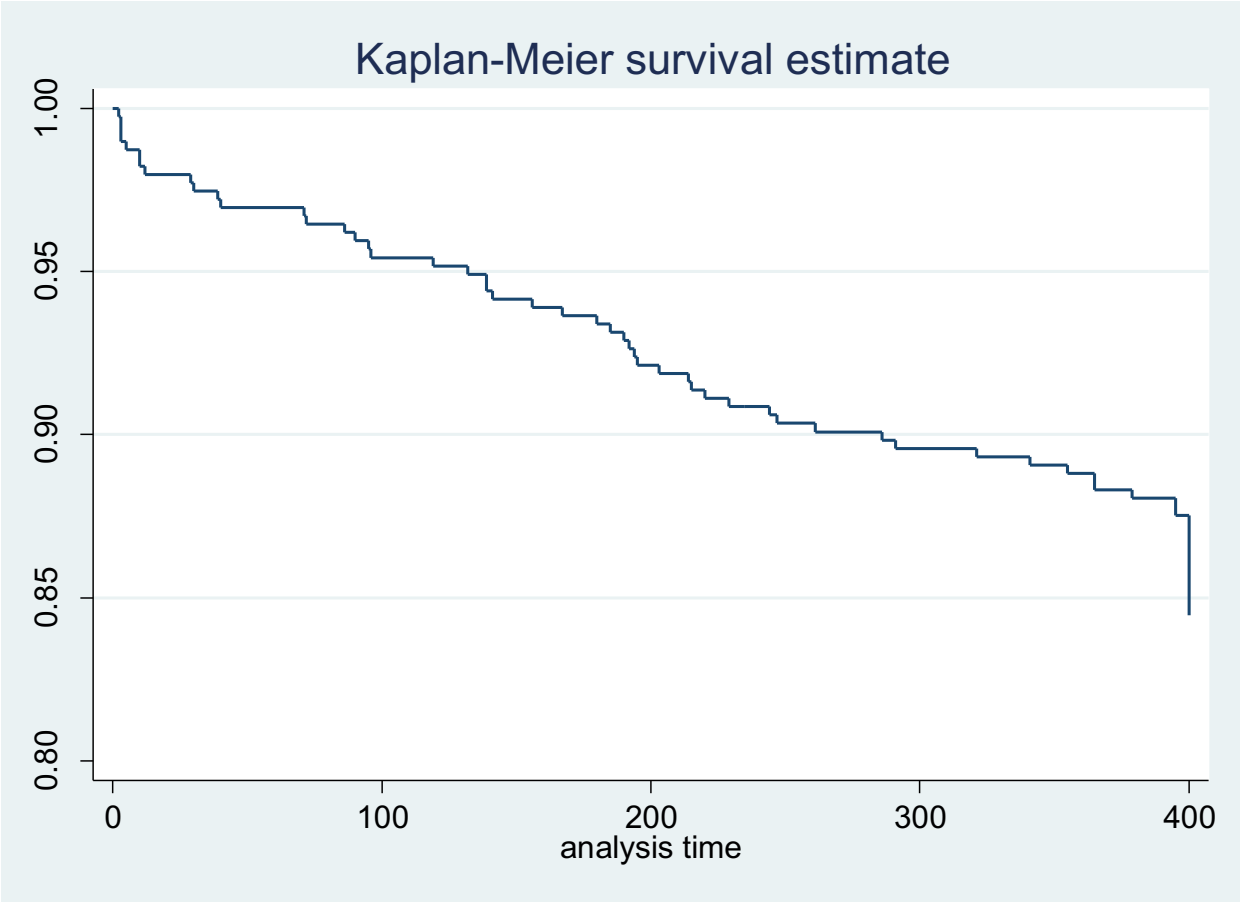
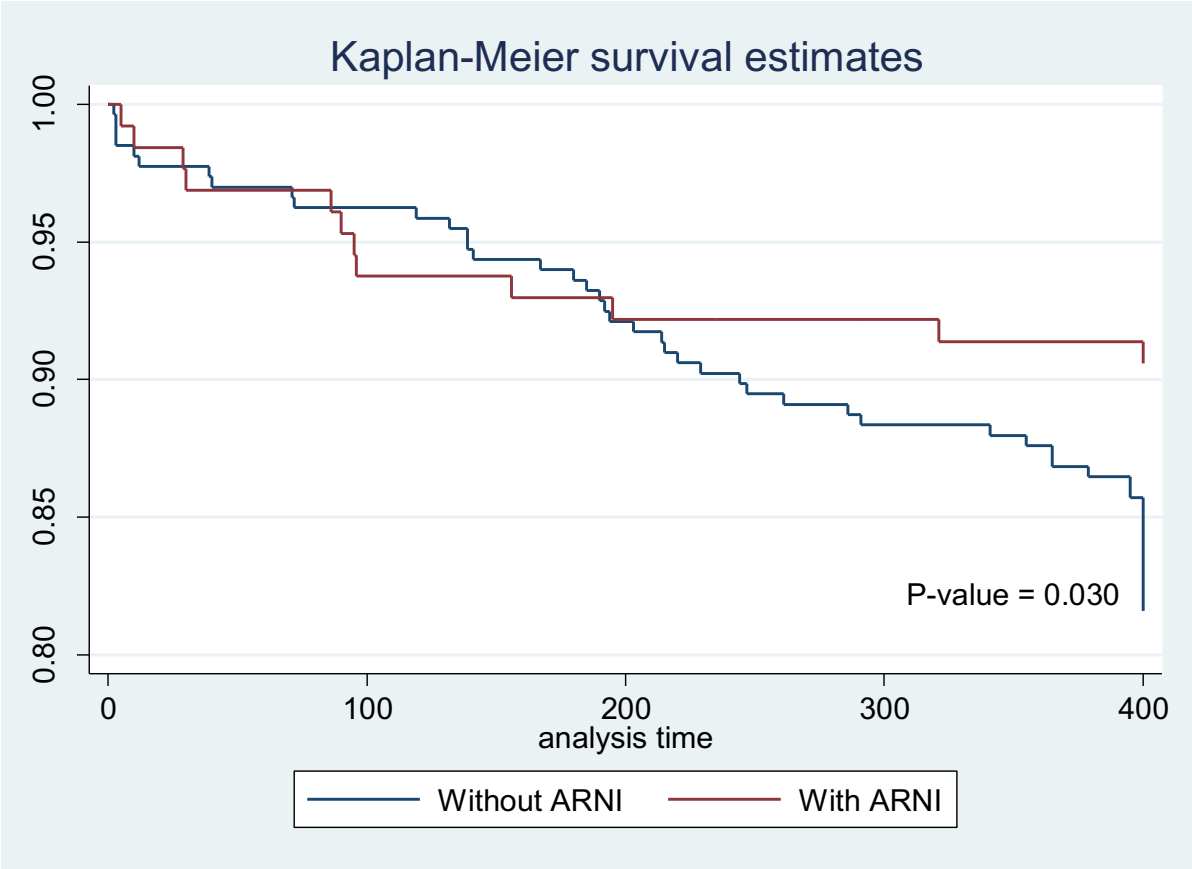


Supplementary Figure 1: Mortality outcomes

(A) Kaplan-Meier curve for survival

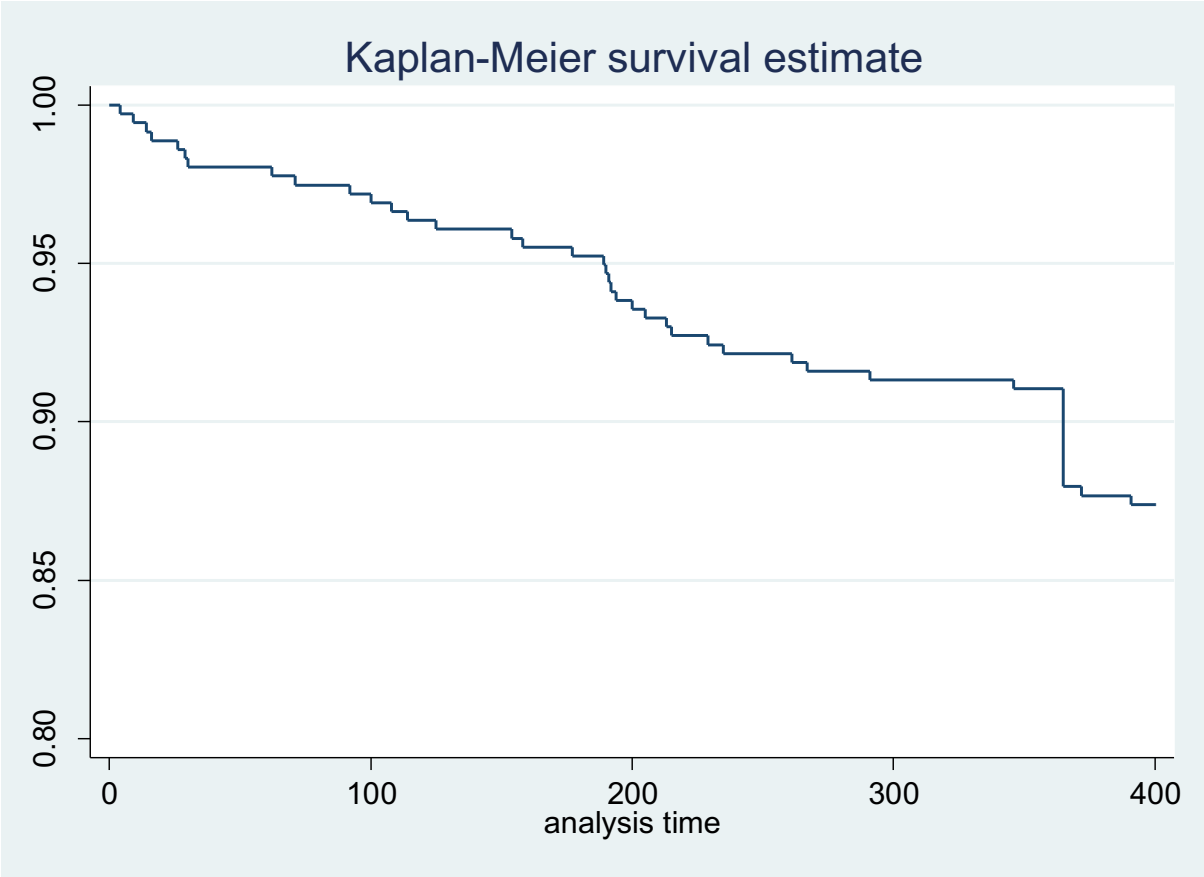


(B) Kaplan-Meier curve for mortality by ARNI treatment

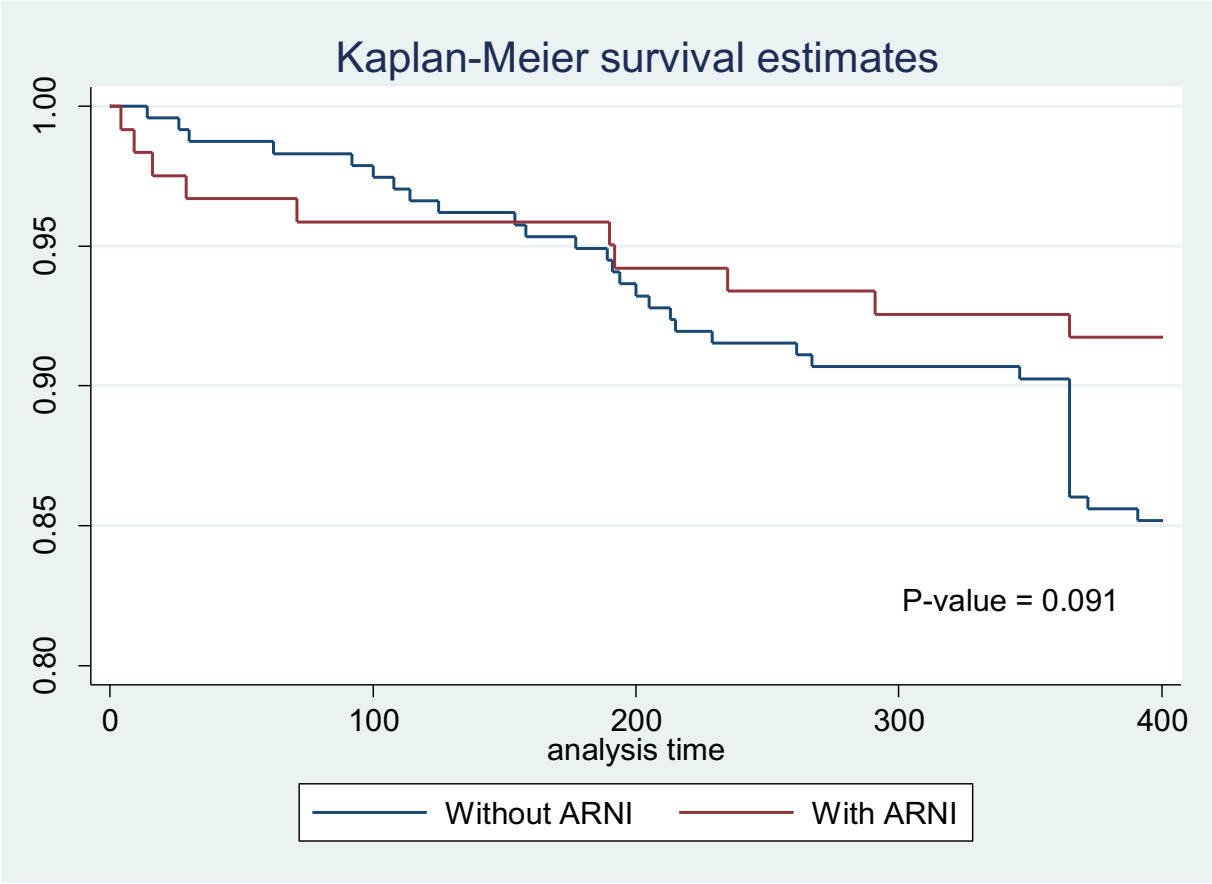


Supplementary Figure 2: Hospitalisation outcomes

(A) Kaplan-Meier curve for hospitalization

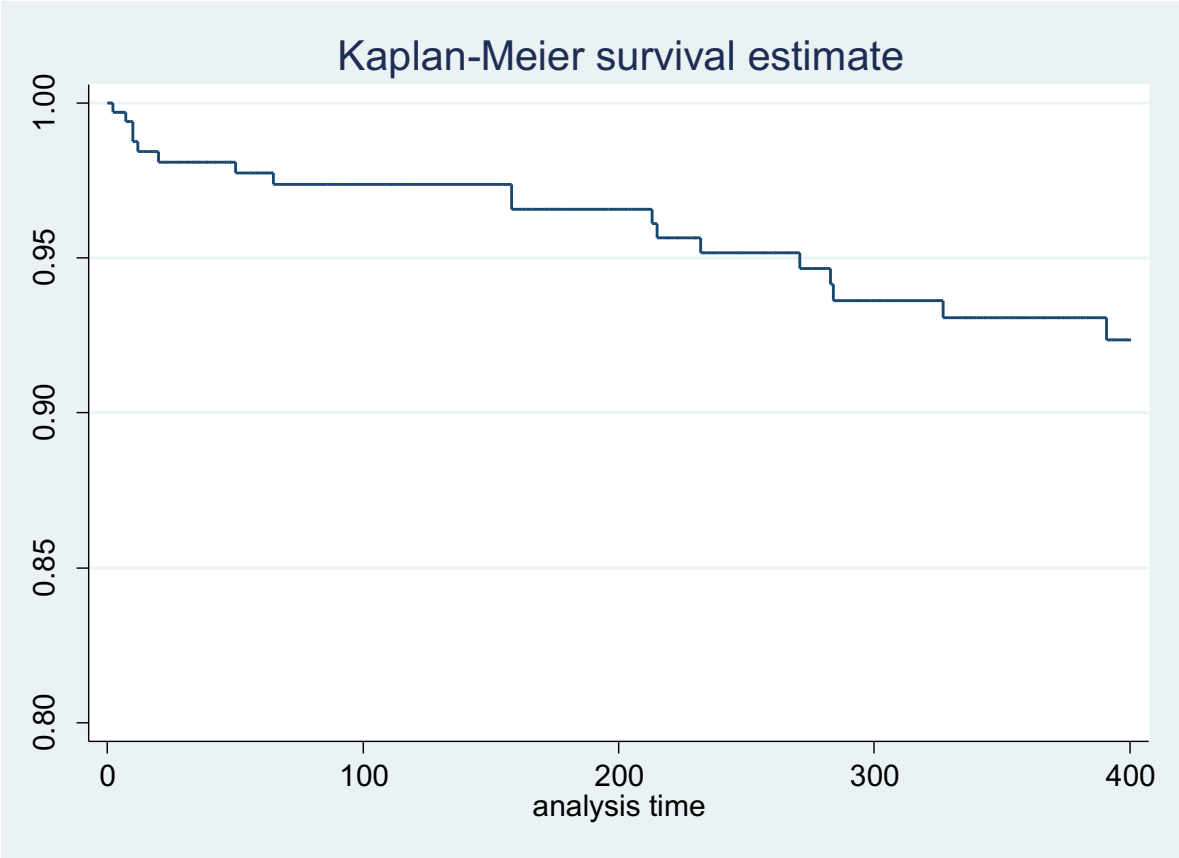


(B) Kaplan-Meier curve for hospitalisation by ARNI treatment

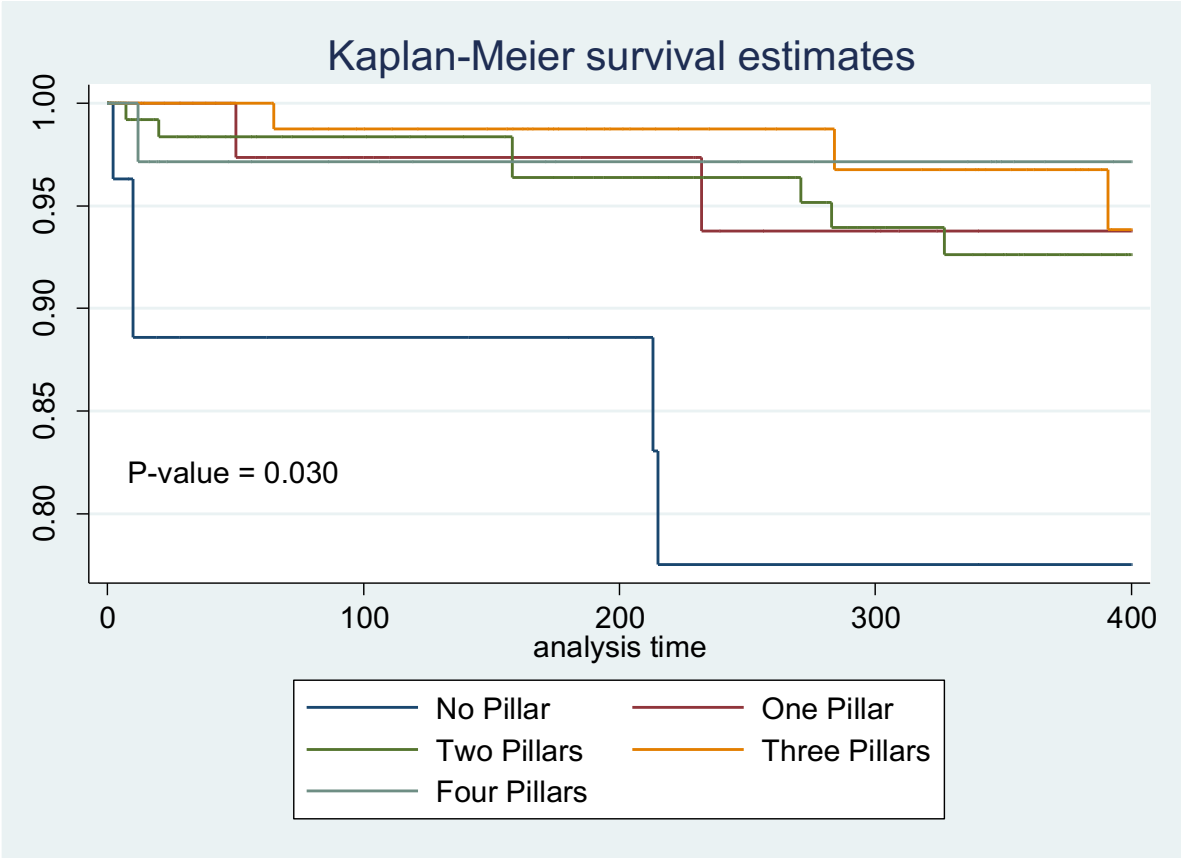


Supplementary Figure 3: Acute decompensation outcomes

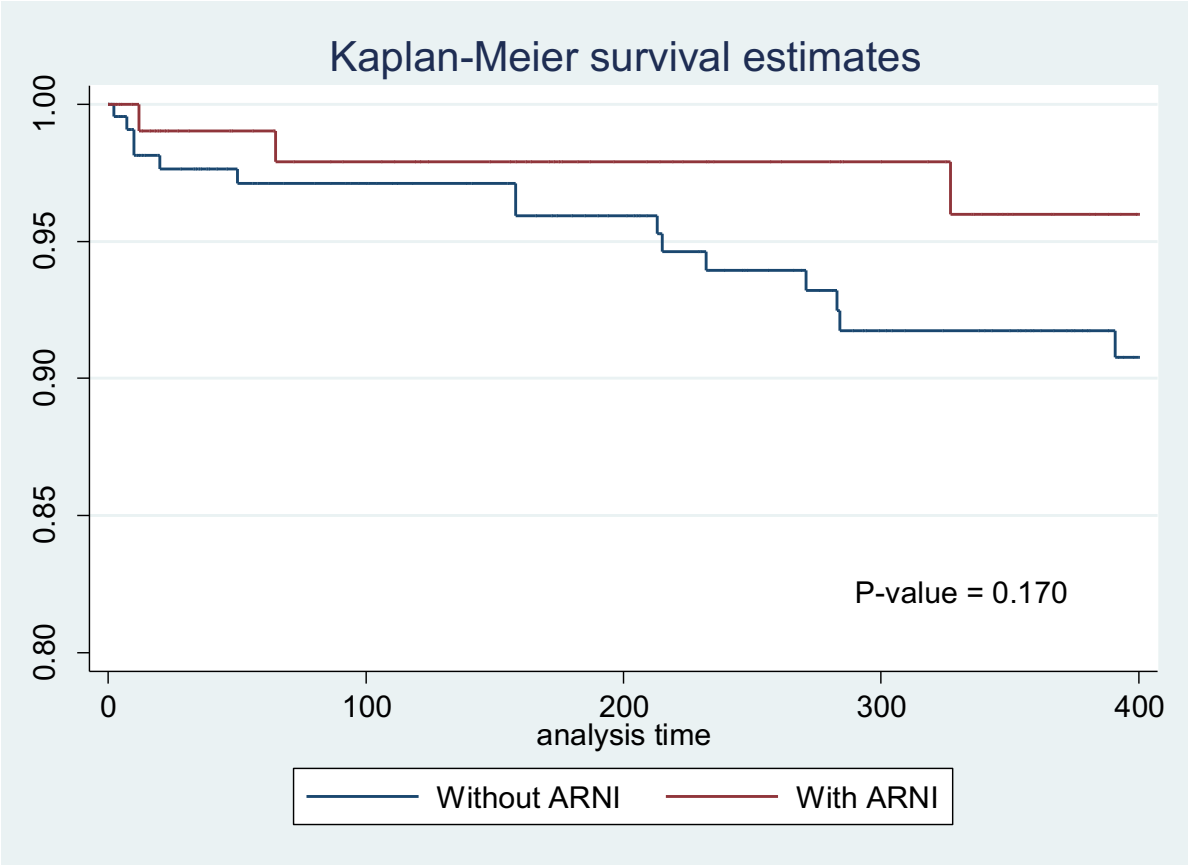
(A) Kaplan-Meier curve for acute decompensation



(B) Kaplan-Meier curve for acute decompensation by number of treatment pillars on enrollment



(C) Kaplan-Meier curve for acute decompensation by ARNI treatment



Supplementary Table 1: Detailed baseline medications

	Ejection Fraction					P-value
	Total (n=394)	Reduced (n=162, 41%)	Mildly reduced (n=89, 23%)	Preserved (n=95,24%)	Unclassified (n=48, 12%)	
Number of drug classes given						0.052
- No drug class	38 (9.64)	13 (8.02)	8 (8.99)	12 (12.63)	5 (10.42)	
- 1 drug class	56 (14.21)	19 (11.73)	18 (20.22)	15 (15.79)	4 (8.33)	
- 2 drugs classes	154 (39.09)	54 (33.33)	35 (39.33)	40 (42.11)	25 (52.08)	
- 3 drugs classes	98 (24.27)	46 (28.40)	19 (21.35)	23 (24.21)	10 (20.83)	
- 4 drugs classes	48 (12.18)	30 (18.52)	9 (10.11)	5 (5.26)	4 (8.33)	
RAS Inhibitor	318 (80.71)	139 (85.80)	70 (78.65)	70 (73.68)	39 (81.25)	0.113
Sacubitril/Valsartan	133 (33.76)	85 (52.47)	21 (23.60)	16 (16.84)	11 (22.92)	<0.001
ACE inhibitors	101 (25.63)	34 (20.99)	29 (32.58)	22 (23.16)	16 (33.33)	0.117
Enalapril	85 (84.16)	30 (88.24)	25 (86.21)	17 (77.27)	13 (81.25)	0.688
Captopril	9 (8.91)	2 (5.88)	3 (10.34)	3 (13.64)	1 (6.25)	0.784
Perindopril	3 (2.97)	2 (5.88)	0	0	1 (6.25)	0.368
Ramipril	4 (3.96)	0	1 (3.45)	2 (9.09)	1 (6.25)	0.243
Angiotensin receptor blockers	101 (25.63)	31 (19.14)	22 (24.72)	35 (36.84)	13 (27.08)	0.019
Telmisartan	30 (29.70)	6 (19.35)	4 (18.18)	16 (45.71)	4 (30.77)	0.072
Valsartan	17 (16.83)	10 (32.26)	3 (13.64)	2 (5.71)	2 (15.38)	0.037
Candesartan	15 (14.85)	10 (32.26)	3 (13.64)	2 (5.71)	0	0.010
Irbesartan	4 (3.96)	1 (3.23)	1 (4.55)	2 (5.71)	0	1.000
Losartan	35 (34.65)	4 (12.90)	11 (50)	13 (37.14)	7 (53.85)	0.008
Beta-blockers	282 (71.57)	112 (69.14)	61 (68.54)	75 (78.95)	34 (70.83)	0.318
Carvedilol	226 (80.14)	90 (80.36)	51 (83.61)	61 (81.33)	24 (70.59)	0.479

Bisoprolol	38 (13.48)	15 (13.39)	7 (11.48)	8 (10.67)	8 (23.53)	0.300
Nebivolol	11 (3.90)	4 (3.57)	2 (3.28)	3 (4)	2 (5.88)	0.891
Metoprolol Succinate	7 (2.48)	3 (2.68)	1 (1.64)	3 (4)	0	0.746
MRA	136 (34.52)	74 (45.68)	27 (30.34)	22 (23.16)	13 (27.08)	0.001
Spironolactone	114 (28.93)	65 (40.12)	23 (25.84)	15 (15.79)	11 (22.92)	<0.001
Eplerenone	22 (5.58)	9 (5.56)	4 (4.49)	7 (7.37)	2 (4.17)	0.852
SGLT2i	114 (28.93)	60 (37.04)	23 (25.84)	17 (17.89)	14 (29.17)	0.011
Empagliflozin	67 (58.77)	34 (56.67)	14 (60.87)	12 (70.59)	7 (50)	0.670
Dapagliflozin	47 (41.23)	26 (43.33)	9 (39.13)	5 (29.41)	7 (50)	0.670
Antiplatelets	254 (64.47)	113 (69.75)	56 (62.92)	60 (63.16)	25 (52.08)	0.148
Aspirin	95 (37.40)	48 (42.48)	18 (32.14)	20 (33.33)	9 (36)	0.512
Clopidogrel	141 (55.51)	58 (51.33)	34 (60.71)	38 (63.33)	11 (44)	0.236
Prasugrel	3 (1.18)	1 (0.88)	0	1 (1.67)	1 (4)	0.362
Ticagrelor	15 (5.91)	6 (5.31)	4 (7.14)	1 (1.67)	4 (16)	0.086
Anticoagulants	52 (13.20)	22 (13.58)	14 (15.73)	12 (12.63)	4 (8.33)	0.705
Apixaban	26 (50)	9 (40.91)	8 (57.14)	7 (58.33)	2 (50)	0.751
Dabigatran	4 (7.69)	2 (9.09)	2 (14.29)	0	0	0.688
Rivaroxaban	10 (19.23)	4 (18.18)	3 (21.43)	2 (16.67)	1 (25)	1.000
Warfarin	12 (23.08)	7 (31.82)	1 (7.14)	3 (25)	1 (25)	0.366
Statins	316 (80.20)	127 (78.40)	71 (79.78)	83 (87.37)	35 (72.92)	0.170
Atorvastatin	237 (75)	101 (79.53)	55 (77.46)	53 (63.86)	28 (80)	0.055
Rosuvastatin	74 (23.42)	23 (18.11)	15 (21.13)	29 (34.94)	7 (20)	0.036
Simvastatin	5 (1.58)	3 (2.36)	1 (1.41)	1 (1.20)	0	1.000
Others	218 (55.33)	102 (62.96)	53 (59.55)	48 (50.53)	15 (31.25)	0.001
Ivabradine	49 (12.44)	29 (17.90)	9 (10.11)	8 (8.42)	3 (6.25)	0.060
Loop diuretic	100 (25.38)	60 (37.04)	18 (20.22)	12 (12.63)	10 (20.83)	< 0.001
Digoxin	33 (8.38)	15 (9.26)	11 (12.36)	7 (7.37)	0	0.051
Nitrates	88 (22.34)	34 (20.99)	21 (23.60)	29 (30.53)	4 (8.33)	0.020
Hydralazine	0	0	0	0	0	-
Amiodarone	9 (2.28)	5 (3.09)	2 (2.25)	1 (1.05)	1 (2.08)	0.841

Omega 3-FA	0	0	0	0	0	-
------------	---	---	---	---	---	---

ACE=angiotensin-converting enzyme; ARB=angiotensin receptor blocker; ARNI=angiotensin receptor/neprilysin inhibitor; MRA=mineralocorticoid receptor antagonist; RAS=renin-angiotensin system; SGLT2=sodium-glucose cotransporter 2.

Supplementary Table 2: Last visit medications

	Ejection Fraction					P-value
	Total (n=394)	Reduced (n=162, 41%)	Mildly reduced (n=89,23%)	Preserved (n=95,24%)	Unclassified (n=48, 12%)	
	Frequency (%)					
Number of drug classes given (n=369)	59	22	15 (18.07)	14 (16.28)	8 (18.18)	0.003
- One drug class	(15.99)	(14.10)	32 (38.55)	34 (39.53)	21 (47.73)	
- 2 drugs classes	122	35	21 (25.30)	28 (32.56)	11 (25)	
- 3 drugs classes	(33.06)	(22.44)	15 (18.07)	10 (11.63)	4 (9.09)	
- 4 drugs classes	114	54				
	(30.89)	(34.62)				
	74	45				0.005
	(20.05)	(28.85)				
Number of drug classes given	25	6 (3.70)	6 (6.74)	9 (9.47)	4 (8.33)	
- No drug class given	(6.35)	22	15 (16.85)	14 (14.74)	8 (16.67)	
- One drug class	59	(13.58)	32 (35.96)	34 (35.79)	21 (43.75)	
- 2 drugs classes	(14.97)	35	21 (23.60)	28 (29.47)	11 (22.92)	
- 3 drugs classes	122	(21.60)	15 (16.85)	10 (10.53)	4 (8.33)	
- 4 drugs classes	(30.96)	54				
	114	(33.33)				
	(28.93)	45				
	74	(27.78)				
	(18.78)					
RAS Inhibitor	333	141	71 (79.78)	82 (86.32)	39 (81.25)	0.401
	(84.52)	(87.04)				

Sacubitril/Valsartan	153 (38.83)	92 (56.79)	28 (31.46)	22 (23.16)	11 (22.92)	< 0.001
MRA	163 (41.37)	91 (56.17)	36 (40.45)	23 (24.21)	13 (27.08)	< 0.001
Spironolactone	140 (35.53)	82 (50.62)	31 (34.83)	16 (16.84)	11 (22.92)	< 0.001
Eplerenone	23 (5.84)	9 (5.56)	5 (5.62)	7 (7.37)	2 (4.17)	0.920
ACE inhibitors	91 (23.10)	27 (16.67)	24 (26.97)	24 (25.26)	16 (33.33)	0.055
Enalapril	75 (82.42)	23 (85.19)	20 (83.33)	20 (83.33)	12 (75)	0.853
Captopril	7 (7.69)	2 (7.41)	2 (8.33)	2 (8.33)	1 (6.25)	1.000
Perindopril	5 (5.49)	2 (7.41)	1 (4.17)	0	2 (12.50)	0.389
Ramipril	4 (4.40)	0	1 (4.17)	2 (8.33)	1 (6.25)	0.507
Angiotensin receptor blockers	95 (24.11)	24 (14.81)	21 (23.60)	38 (40)	12 (25)	< 0.001
Telmisartan	29 (30.53)	5 (20.83)	4 (19.05)	15 (39.47)	5 (41.67)	0.209
Valsartan	10 (10.53)	4 (16.67)	2 (9.52)	3 (7.89)	1 (8.33)	0.792
Candesartan	17 (17.89)	7 (29.17)	7 (33.33)	3 (7.89)	0	0.011
Irbesartan	5 (5.26)	1 (4.17)	1 (4.76)	2 (5.26)	1 (8.33)	1.000
Losartan	34 (35.79)	7 (29.17)	7 (33.33)	15 (39.47)	5 (41.67)	0.821
Beta-blockers	295 (74.87)	123 (75.93)	64 (71.91)	75 (78.95)	33 (68.75)	0.500

Carvedilol	236 (80)	98 (79.67)	53 (82.81)	63 (84)	22 (66.67)	0.217
Bisoprolol	41 (13.90)	17 (13.82)	8 (12.50)	8 (10.67)	8 (24.24)	0.294
Nebivolol	10 (3.39)	3 (2.44)	1 (1.56)	3 (4)	3 (9.09)	0.243
Metoprolol Succinate	8 (2.71)	5 (4.07)	2 (3.13)	1 (1.33)	0	0.636
SGLT2i	150 (38.07)	79 (48.77)	31 (34.83)	26 (27.37)	14 (29.17)	0.002
Empagliflozin	95 (63.33)	51 (64.56)	19 (61.29)	17 (65.38)	8 (57.14)	0.955
Dapagliflozin	55 (36.67)	28 (35.44)	12 (38.71)	9 (34.62)	6 (42.86)	0.943
Antiplatelets	267 (67.77)	118 (72.84)	60 (67.42)	61 (64.21)	28 (58.33)	0.214
Aspirin	109 (40.82)	50 (42.37)	26 (43.33)	25 (40.98)	8 (28.57)	0.581
Clopidogrel	146 (54.68)	65 (55.08)	33 (55)	33 (54.10)	15 (53.57)	1.000
Prasugrel	2 (0.75)	0	0	1 (1.64)	1 (3.57)	0.106
Ticagrelor	10 (3.75)	3 (2.54)	1 (1.67)	2 (3.28)	4 (14.29)	0.043
Anticoagulants	66 (16.75)	28 (17.28)	13 (14.61)	20 (21.05)	5 (10.42)	0.420
Apixaban	39 (59.09)	16 (57.14)	8 (61.54)	13 (65)	2 (40)	0.800
Dabigatran	7 (10.61)	2 (7.14)	2 (15.38)	2 (10)	1 (20)	0.674

Rivaroxaban	12 (18.18)	5 (17.86)	3 (23.08)	3 (15)	1 (20)	0.928
Warfarin	8 (12.12)	5 (17.86)	0	2 (10)	1 (20)	0.304
Statins	335 (85.03)	133 (82.10)	80 (89.89)	85 (89.47)	37 (77.08)	0.086
Atorvastatin	249 (74.33)	101 (75.94)	65 (81.25)	55 (64.71)	28 (75.68)	0.096
Rosuvastatin	80 (23.88)	29 (21.80)	14 (17.50)	29 (34.12)	8 (21.62)	0.068
Simvastatin	6 (1.79)	3 (2.26)	1 (1.25)	1 (1.18)	1 (2.70)	0.834
Others	199 (50.51)	89 (54.94)	47 (52.81)	47 (49.47)	16 (33.33)	0.067
Ivabradine	46 (11.68)	29 (17.90)	8 (8.99)	6 (6.32)	3 (6.25)	0.018
Loop diuretic	73 (18.53)	37 (22.84)	17 (19.10)	11 (11.58)	8 (16.67)	0.156
Digoxin	29 (7.36)	14 (8.64)	8 (8.99)	7 (7.37)	0	0.139
Nitrates	88 (22.34)	31 (19.14)	21 (23.60)	30 (31.58)	6 (12.50)	0.041
Hydralazine	0	0	0	0	0	-
Amiodarone	9 (2.28)	4 (2.47)	1 (1.12)	2 (2.11)	2 (4.17)	0.688
Omega 3-FA	0	0	0	0	0	-