

## **SUPPLEMENTARY DATA**

### **COLLABORATORS**

The authors acknowledge all other members of the ETIFIC research team, collaborators who took part in the study and reviewed the study protocol, developed the intervention content, obtained ethical approval from each hospital, managed the day-to-day running of the trial, and delivery of the intervention and collected the data:

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## **CONTRIBUTORS**

The authors as well as collaborators are members of the ETIFIC research team. Among them, there are HF-cardiologists, HF-nurses, Directors of HF and Cardiac Transplant Units, Directors of Departments of Cardiology, and Medical Directors. They have broad experience and expertise in managing HF patients and have taken part in several research studies on chronic and acute HF and heart transplant.

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## **TRANSPARENCY**

The lead author affirms that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned and registered have been explained.

## **DEFINITION GENDER/SEX**

The authors' definition of sex and gender for this article is based on the American Medical Association (AMA) guide, 11<sup>th</sup> edition:

*Sex is defined as the classification of living things as male or female and is a "biological component, defined via the genetic complement of chromosomes, including cellular and molecular differences."*

*Gender comprises "social, environmental, cultural, and behavioural factors and choices that influence a person's self- identity and health."<sup>9</sup> The term gender "includes gender identity (how individuals and groups perceive and present themselves), gender norms (unspoken rules in the family, workplace, institutional, or global culture that influence individual attitudes and behaviours), and gender relations (the relations between individuals of different gender identities)."*

*(Christiansen SL, Iverson C, Flanagin A, et al. AMA manual of style, a guide for authors and editors, 11th edition, 2020. *Jama network*. Oxford University Press).*

Note from authors: although we agree in general with AMA definition and we have tried to apply it in the article, we had difficulties in choosing one term over another, sex, gender or both, due to the lack of research specifically directed to women, which could clarify the application of this definition. We did not prove but nor could we rule out the influence of both sex and gender in most of the study variables or factors influencing the titration process in women, the selection process, and some baseline characteristics. However, since the ETIFIC study was mainly an organizational trial carried out with close follow-up in HF clinics, that concluded that women, in that context, were able to achieve similar doses, no higher adverse events (even lower) and excellent clinical results, we have prioritized the term *gender* in the title, abstract, and

conclusions. Although the accuracy of some of our applied terms may not always have been the best option, we hope that our article has raised the urgent need for future research specifically directed to women and has opened ways for a better application of the terms *sex* and *gender*.

**Table 1 of the supplementary data**

Variables introduced in the multivariate analysis

Variables	BB	ACEI	MRA
Sex (female vs male)	X	X	X
Time (baseline vs 4 mo)	X	X	X
Group by titrating professional: HF nurse/HF cardiologist	X	X	X
No. visits with the titrating professional	X	X	X
Age, y	X	X	X
Patient education up to age ≤ 10 y	X	X	X
Baseline dose	X	X	X
SBP at baseline	X	X	X
Heart rate at baseline	X		
Glomerular filtration rate, at baseline	X	X	X
eGFR < 60 (no vs yes) at baseline	X	X	X
Potassium ≥ 5.5 mEq/L at baseline		X	X
Women with mild events (yes vs no) associated with titration	X	X	X
Atrial fibrillation	X	X	X
Ischemic heart disease	X	X	X
Diabetes mellitus	X	X	X
Respiratory disease	X		
NT-proBNP at baseline	X	X	X
LVEF at baseline	X	X	X
NYHA/II/III at baseline	X	X	X
Combination of 3 drugs (BB, ACEI/ARB/sac-valsartan/MRA) at baseline	X	X	X
Other rate-lowering drugs at baseline	X		
BP lowering drugs at baseline	X	X	X
Psychotropic drugs at baseline	X	X	X

ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; BB, beta-blockers; HF, heart failure; eGFR, estimated glomerular filtration rate; MRA, mineralocorticoid receptor blocker; Nt-proBNP, N-terminal proBNP; NYHA, New York Heart Association; SBP, systolic blood pressure.

**Table 2 of the supplementary data**

Exclusion, inclusion analysis

	Total	Women	Men	Diff (95%CI)	P
<i>Patients</i>					
Assessed for eligibility	824	221 (26.8)	603 (73.2)	-46.36 (-50.76 to -41.96)	< .001
Excluded	504	138 (27.38)	366 (72.62)	-45.24 (-50.94 to -39.53)	< .001
Excluded/assessed for eligibility		138/221 (62.44)	366/603 (60.70)	1.75 (-6.04 to 9.54)	.708
Included	320	83 (25.94)	237 (74.06)	-48.13 (-55.23 to -41.02)	< .001
Analyzed at 4 mo/total analyzed	289	76 (26.29)	213 (73.70)	-47.40 (-54.93 to -39.88)	< .001
Analyzed at 6 mo/total analyzed	274	74 (27.01)	200 (72.99)	-45.98 (-53.78 to -38.16)	< .001
<i>Included by hospital/total No. of included patients</i>					
In 6 hospitals that included ≥ 20 patients	182	53 (29.12) (12-37.20)	129 (70.88) (62-88)		
In 6 hospitals that included 10-19 patients	91	18/(19.78) (6.66-35.71)	73 (80.22) (64-93)		
In 8 hospitals that included < 10 patients	47	11 (23.40) (0-33)	36 (76.60) (33-100)		
<i>Women included by hospital</i>					
6 Hospitals ≥ 20: 01: 8/25 (32); 02:16/43 (37.20); 03:13/45 (28.88); 11: 7/22 (31.81); 15: 6/22 (27.27); 16: 3/25 (12)					
6 Hospitals 10-19: 10: 2/16 (12.5); 12: 3/16 (18.75); 13:1/15 (6.66); 14:5/14 (35.71); 17: 4/17 (23.52); 18:3/13 (23.07)					
8 Hospitals < 10: 04: 1/7 (14.28); 05: 1/3 (33.33); 6: 2/7 (28.57); 7 2/3 (66.66); 8: 3/9 (33.33); 9: 0/1 (0); 19: 0/8(0); 20: 2/9 (22.22)					
<i>Men included by hospital</i>					
6 Hospitals ≥ 20: 01: 17/25 (68); 02:27/43 (62.80); 03:32/45 (71.12); 11: 15/22 (68.19); 15: 16/22 (72.73); 16: 22/25 (88)					
6 Hospitals 10-19: 10: 14/16 (87.5); 12: 13/16 (81.25); 13:14/15 (93.34); 14:9/14 (64.29); 17: 13/17(76.48); 18:10/13 (76.93)					
8 Hospitals < 10: 04: 6/7 (85.72); 05: 2/3 (66.67); 6: 5/7 (71.43); 7: 1/3 (33.34); 8: 6/9 (66.67); 9: 1/1 (100); 19: 8/8(100); 20: 7/9 (77.78)					

95%CI, 95% confidence interval; Diff, difference;

Unless otherwise indicated, the data are expressed as absolute numbers, No. (%), or No. (%) (min-max).

\* P value of the interaction between treatment and each subgroup.

**Table 3 of the supplementary data**

## Causes of exclusion

Causes of exclusion	Total N = 504	Women n = 138	Men n = 366	Diff (95%CI)	P*
<i>Not meeting inclusion criteria</i>	441	116 (84.06)	325 (88.80)	-4.73 (-12.15 to 2.67)	.199
Without need for BB titration prescription, 100% target dose or maximal tolerated dose	140	43 (31.16)	97 (26.50)	4.66 (-4.79 to 14.11)	.353
Scheduled surgical procedure	113	24 (17.39)	89 (24.32)	-6.93 (-15.13 to 1.27)	.123
Contraindication to BB	26	8 (5.8)	18 (4.91)	0.89 (-4.10 to 5.86)	.863
NYHA IV at discharge	1	0 (0)	1 (0.27)	-0.27 (-1.08 to 0.53)	.999
Inability to attend appointments; home-care patient	65	20 (14.49)	45 (12.29)	2.20 (-5.07 to 9.46)	.612
Incapacity for self-care not compensated by caregiver	42	6 (4.35)	36 (9.84)	-5.49 (-10.56 to -0.42)	.071
Life expectancy < 6 mo	34	5 (3.62)	29 (7.92)	-4.30 (-8.97 to 0.37)	.129
Living in a nursing home	15	8 (5.8)	7 (1.92)	3.88 (-0.76 to 8.53)	.046
Unable to stand up for 20 sec on weighing scale	4	2 (1.45)	2 (0.54)	0.91 (-1.73 to 3.53)	.649
Without telephone	1	1 (0.72)	0 (0)	0.72 (-1.19 to 2.64)	.612
<i>Consent form not signed</i>	45	14 (10.14)	31 (8.47)	1.67 (-4.61 to 7.96)	.678
<i>Others</i>	18	8 (5.8)	10 (2.73)	3.07 (1.68 to 7.81)	.166

BB, beta-blockers; 95%CI, 95% confidence interval; Diff, difference; NYHA, New York Heart Association.

Unless otherwise indicated, the data are expressed as absolute numbers or No. (%).

\* P value of the interaction between treatment and each subgroup.

**Table 4 of the supplementary data**

Supplementary baseline patient characteristics

Variables (at hospital discharge)	Women n = 83	Men n = 237	P*
<b>Educational level</b>			
<i>Reading and writing supplied by carer</i>	2 (2.41)	4 (1.69)	.769
<i>Reading and writing</i>	18 (21.69)	41 (17.37)	
<i>Up to 10 y</i>	11 (13.25)	32 (13.56)	
<i>Up to 14-16 y</i>	37 (44.58)	102 (43.22)	
<i>Further studies</i>	15 (18.07)	57 (24.15)	
<b>Patients ≥ 70 y</b>	30 (36.14)	53 (22.36)	.014
<b>Lawton Instrumental Activities of Daily Living Scale score (0-8)</b>	26 (7.81 ± 1.27)	49 (6.69 ± 2.41)	.031
<i>Lawton &lt; 5 (men) &lt; 8 (women)</i>	15 (57.69)	21 (42.86)	.221
<i>Lawton test, inability</i>			
<i>Use telephone</i>	1 (3.33)	4 (7.55)	.438
<i>Shopping</i>	10 (33.33)	18 (33.96)	.954
<i>Food preparation</i>	4 (13.33)	36 (67.92)	.000
<i>Housekeeping</i>	3 (10)	17 (32.08)	.024
<i>Laundry</i>	3 (10)	36 (67.92)	.000
<i>Transportation</i>	10 (33.33)	13 (24.53)	.389
<i>Responsibility for own medications</i>	10 (38.46)	23 (46.94)	.482
<i>Handle finances</i>	4 (13.33)	8 (15.09)	.827
<b>Cardiovascular risk factors</b>			
<i>Hypertension</i>	41 (49.4)	125 (52.74)	.600
<i>Dyslipidemia</i>	30 (36.14)	92 (38.82)	.666
<i>Smoker</i>	14 (16.87)	83 (35.02)	.002
<i>Exsmoker &lt; 1 y</i>	4 (4.82)	20 (8.44)	.281
<i>Exsmoker ≥ 1 y</i>	11 (13.25)	62 (26.16)	.016
<b>Heart disease</b>			
<i>AV block, first-degree</i>	1 (1.2)	4 (1.69)	.495
<i>Pacemaker</i>	2 (2.41)	5 (2.11)	.872
<i>Automated implantable cardioverter defibrillator</i>	2 (2.41)	9 (3.8)	.550
<i>Cardiac resynchronization therapy</i>	1 (1.2)	2 (0.84)	.769
<b>Left ventricular ejection fraction (%) ≤ 35%</b>	69 (83.13)	207 (87.34)	.338
<b>Comorbidities, Charlson index</b>			
<i>AMI</i>	16 (19.28)	61 (25.74)	.236
<i>Peripheral arterial disease</i>	2 (2.41)	20 (8.44)	.062
<i>Stroke</i>	6 (3.66)	10 (6.41)	.259
<i>Dementia</i>	1 (1.2)	1 (0.42)	.436
<i>Chronic respiratory disease</i>	9 (1.84)	32 (13.5)	.533
<i>Connective tissue disease</i>	3 (3.61)	6 (2.53)	.608
<i>Gastroduodenal ulcer</i>	0 (0)	5 (2.11)	.182
<i>Mild chronic liver disease</i>	1 (1.2)	9 (3.8)	.243
<i>Renal failure with Cr &gt; 3 mg/dL or in dialysis</i>	2 (2.41)	7 (2.95)	.796
<i>Diabetes with end-organ damage</i>	2 (2.41)	11 (4.64)	.375
<i>Any malignancy</i>	13 (15.66)	11 (4.64)	.001
<i>Leukemia</i>	0 (0)	1 (0.42)	.553
<i>Lymphoma</i>	2 (2.41)	1 (0.42)	.106
<i>Severe-moderate chronic liver disease</i>	0 (0)	2 (0.84)	.401

<i>Metastatic solid tumor</i>	1 (1.2)	0 (0)	.091
<i>Charlson comorbidity index score, not age-adjusted</i>	2.17 ± 1.31	2.2 ± 1.33	.810
<i>Charlson index, adjusted by age</i>	5.11 ± 1.65	4.69 ± 2.03	.048
<i>Charlson index ≥ 3</i>	28 (33.73)	81 (34.18)	.942
<b>BMI, kg/m<sup>2</sup></b>	26.49 ± 5.63	27.62 ± 4.64	.072
<i>BMI &lt; 19</i>	6 (7.23)	6 (2.55)	.077
<i>BMI 19-20.99</i>	8 (9.64)	11 (4.68)	
<i>BMI 21-39.9</i>	68 (91.93)	216 (91.91)	
<i>BMI ≥ 40</i>	1 (1.20)	2 (0.85)	
<b>Laboratory tests</b>			
<i>eGFR &lt; 30 mL/min./1.73m<sup>2</sup></i>	3 (3.61)	5 (2.11)	
<i>eGFR 30-60 mL/min./1.73m<sup>2</sup></i>	16 (19.28)	49 (20.68)	.735
<i>Glycosylated hemoglobin (if diabetes mellitus) &gt; 7.5</i>	26 (35.14)	9 (50)	.244
<b>Health-related quality of life</b>			
<i>Minnesota Living with HF Questionnaire (0-105)</i>	52.76 ± 21.14	46.76 ± 22.83	.038
<i>Total score</i>			
<25	44 (18.72)	9 (10.98)	.341
25-40	51 (21.7)	14 (17.07)	
40-50	36 (15.32)	15 (18.29)	
50-74	55 (23.4)	25 (30.49)	
75-100	49 (20.85)	19 (23.17)	
<i>EQ-5 D index</i>	0.66 (0.24)	0.76 (0.23)	.001
<i>Mobility (score 1,2,3)</i>			
1	48 (58.54)	161 (68.8)	.201
2	33 (40.24)	72 (30.77)	
3	1 (1.22)	1 (0.43)	
<i>Self-care (1,2,3)</i>			
1	66 (80.49)	206 (88.03)	.169
2	13 (15.85)	25 (10.68)	
3	3 (3.66)	3 (1.28)	
<i>Daily living tasks, (1,2,3)</i>			
1	3947,56)	159 (67.95)	.040
2	33 (40.24)	65 (27.78)	
3	10 (12,19)	10 (4.27)	
<i>Pain/discomfort (1,2,3)</i>			
1	45 (54.88)	149 (64.22)	.194
2	34 (41.46)	71 (30.6)	
3	3 (3.66)	12 (5.17)	
<i>Anxiety/ depression</i>			
1	30 (36.59)	126 (53.62)	.002
2	37 (45.12)	93 (39.57)	
3	15 (18.29)	16 (6.81)	
<i>Visual analog scale EQ-5D (0-100)</i>	53.89 ± 17.73	58.94 ± 20.21	.047
<i>Visual analog scale EQ-5D score</i>			
< 25	4 (4.94)	12 (5.11)	.066
25-49.9	21 (25.93)	37 (15.74)	
50-74.9	47 (58.02)	134 (57.02)	
75-100	9 (11.11)	52 (22.13)	

ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; BB, beta-blockers; BMI, body mass index; BNP, B-type natriuretic peptide; EQ-5 D, EuroQol-5 Dimension; eGFR, estimated glomerular filtration rate; MRA, mineralocorticoid receptor blocker; NT-proBNP, N-terminal proBNP; NYHA, New York Heart Association; SBP, systolic blood pressure; VAS, visual analog scale.

The data are expressed as No. (%), mean ± standard deviation, or No.; median [interquartile range].

\*P value of the interaction between treatment and each subgroup.

**Table 5 of the supplementary data**

Differences in mean relative dose at 4 months and visits in women and men between titrating professionals: HF-nurse vs HF-cardiologist

Drug	HF nurse	HF cardiologist	Diff (95%CI)	P <sup>a</sup>
<b>BB</b>				
<i>Female patients</i>	40	36		
Relative dose %	68.44 ± 30.7	55.03 ± 29.5	13.40 (-0.38 to 27.19)	.057
<i>Male patients</i>	104	109		
Relative dose %	72.48 ± 31.7	56.71 ± 32	15.77 (7.17 to 24.37)	< .001
<b>ACEI</b>				
<i>Female patients</i>	30	27		
Relative dose %	68.75 ± 32.3	45.37 ± 30.6	23.38 (6.67 to 40.09)	.007
<i>Male patients</i>	85	88		
Relative dose %	73.2 ± 28.7	59.43 ± 29.7	13.77 (5.04 to 22.56)	.002
<b>ARB</b>				
<i>Female patients</i>	7	6		
Relative dose %	36.85 ± 30.8	30.92 ± 22.8	5.93 (-26.95 to 38.81)	.699
<i>Male patients</i>	12	11		
Relative dose %	48.93 ± 35.5	50.38 ± 37.5	-1.44 (-33.22 to 30.32)	.925
<b>MRA</b>				
<i>Female patients</i>	34	33		
Relative dose %	83.82 ± 26.7	75.76 ± 28.3	8.07 (-5.38 to 21.51)	.235
<i>Male patients</i>	91	94		
Relative dose %	66.21 ± 32.8	68.35 ± 30.5	-2.14 (-11.33 to 7.05)	.646
<b>Visits/professional</b>				
<i>Female patients</i>	39 <sup>b</sup>	36		
	6.28 ± 2.95	2.72 ± 1.56	3.56 (2.48 to 4.64)	< .001
<i>Male patients</i>	103 <sup>b</sup>	108 <sup>b</sup>		
	6.50 ± 2.80	2.84 ± 1.60	3.65 (3.03 to 4.28)	< .001
<b>Patients ≤ 2 visits with the titrating professional</b>				
<i>Female patients</i>	3/39 (7.69)	20/36 (55.55)	-47.86 (-68.79 to -26.93)	< .001
<i>Male patients</i>	4/103 (3.88)	58/108 (53.70)	-49.82 (-60.89 to -38.75)	< .001

ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; BB, beta blocker; 95%CI, 95% confidence interval; Diff, difference; HF, heart failure, MRA, mineralocorticoid receptor antagonist.

Unless otherwise indicated, the data are expressed as absolute numbers, No. (%) or mean ± standard deviation

<sup>a</sup>P value of the interaction between treatment and each subgroup.

<sup>b</sup>The number of visits was missing in 3 patients (1 woman, 2 men).

**Table 6 of the supplementary data**

Differences in mean relative dose and visits in women and men between the professional who titrated: HF women cardiologist vs HF men cardiologist

Drug	HF female cardiologist	HF male cardiologist	Diff (95%CI)	P*
<b>BB</b>				
Female patients	18	18		
Relative dose %	65.28 ± 33.09	44.79 ± 21.09	20.49 (1.38 to 39.60)	.037
Male patients	47	62		
Relative dose %	62.37 ± 33.34	52.42 ± 30.52	9.95 (-2.40 to 22.30)	.113
<b>ACEI</b>				
Female patients	14	13		
Relative dose %	48.21 ± 32.84	42.31 ± 29.1	5.91 (-18.66 to 30.47)	.624
Male patients	39	49		
Relative dose %	61.35 ± 30.1	57.91 ± 30.27	3.44 (-9.23 to 16.11)	.591
<b>ARB</b>				
Female patients	2	4		
Relative dose %	22.75 ± 14.50	35 ± 27.1	-12.25 (-60.72 to 36.22)	.513
Male patients	2	9		
Relative dose %	43.75 ± 44.19	51.85 ± 38.76	-8.10 (-241.98 to 225.77)	.842
<b>MRA</b>				
Female patients	17	16		
Relative dose %	70.59 ± 30.92	81.25 ± 25.00	-10.66 (-30.59 to 9.27)	.283
Male patients	38	56		
Relative dose %	63.82 ± 39.50	71.43 ± 27.9	7.61 (-20.83 to 5.61)	.255
<b>Visits/professional</b>				
Female patients	18	18		
	3.22 ± 1.77	2.22 ± 1.17	1 (-0.02 to 2.02)	.054
Male patients	47	61		
	3.43 ± 1.65	2.39 ± 1.33	1.03 (0.44 to 1.62)	< .001
<b>Patients with ≤2 visits with the titrating professional</b>				
Female patients	8/18 (44.44)	12/18 (66.67)	-22.23 (-59.42 to 14.98)	.314
Male patients	18/47 (38.30)	40/61 (65.57)	-27.28 (-47.47 to -7.08)	.008

ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; BB, beta-blocker; 95%CI, 95% confidence interval; Diff, difference; HF, heart failure, MRA, mineralocorticoid receptor antagonist;

Unless otherwise indicated, the data are expressed as absolute numbers, No. (%), or mean ± standard deviation.

\*P value of the interaction between treatment and each subgroup.

**Table 7 of the supplementary data**

Drug prescription. Baseline to 4 months (titration period)

Prescribed drugs/active patients at 4 months	Women n = 76	Men n = 213	Diff (95%CI)	P*
<b>BB</b>				
At baseline	73/76 (96.05)	208/213 (97.65)	-1.60 (-7.32 to 4.12)	.747
At 4 mo	75/76 (98.68)	210/213 (98.59)	0.09 (-2.92 to 3.10)	.953
Started in this period	3	5		
Withdrawn (0 dose)	1	3		
BB not recommended in guidelines for HF at baseline *	1	0		
<b>ACEI</b>				
At baseline	63/76 (82.89)	176/213 (82.62)	0.27 (-9.88 to 10.41)	1
At 4 mo	56/76 (73.68)	171/213 (80.28)	-6.60 (-18.74 to 5.55)	.298
Started in this period	1	6		
Withdrawn (0 dose), without ARB/ARB-neprilysin inhibitor	1	2		
Changed to other medication: ARB/ARB-neprilysin inhibitor	7	9		
ACEI not recommended in guidelines for HF at baseline *	0	1		
ACEI not recommended in guidelines for HF at 4 m*	0	1		
<b>ARB</b>				
At baseline	8/76 (10.52)	17/213 (7.98)	2.55 (-6.15 to 11.24)	.66
At 4 mo	13/76 (17.10)	22/213 (10.32)	6.78 (-2.62 to 16.18)	.120
Started in this period	6	6		
Withdrawn (0 dose), without ACEI/ARB-neprilysin inhibitor	0	1		
Changed to other medication: ARB-neprilysin inhibitor	1	0		
ARB not recommended in guidelines for HF at baseline*	1	4		
ARB not recommended in guidelines for HF at 4 mo*	1	3		
<b>MRA</b>				
At baseline	58/76 (76.31)	165/213 (77.46)	-1.15 (-13.13 to 10.83)	.964
At 4 mo	65/76 (85.52)	174/213 (81.69)	3.84 (6.52 to 14.19)	.560
Started in this period	9	20		
Withdrawn	2	11		

ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; BB: beta-blockers; 95%CI, 95% confidence interval; Diff, difference; MRA, mineralocorticoid receptor antagonist.

Unless otherwise indicated, the data are expressed as absolute numbers or No. (%).

\*P value of the interaction between treatment and each subgroup.

**Table 8 of the supplementary data**

Drug combination at 4 months (after titration)

Patients with 3 groups of drugs Drug combination BB + (ACEI/ARB/ARB-neprilysin inhibitor) + MRA	Women n = 76	Men n = 213	Dif. (95%CI)	P*
HF-nurse group and HF-cardiologist group	64/76 (84.21)	168/213 (78.87)	5.34 (-5.42 to 16.09)	.403
HF-nurse group	33/40 (82.5)	84/104 (80.77)	1.73 (-14.00 to 17.46)	1
HF-cardiologist group	31/36 (86.11)	84/109 (77.06)	9.05 (-6.58 to 24.68)	.355

ACEI, angiotensin converting enzyme inhibitor; ARB, angiotensin receptor blocker; BB, beta-blockers; 95%CI, 95% confidence interval; Diff, difference; MRA, mineralocorticoid receptor antagonist.

Unless otherwise indicated, the data are expressed as No. (%).

\* P value of the interaction between treatment and each subgroup.

**Table 9 of the supplementary data**

Other drugs that could possibly influence titration. Baseline to 4 months

Patients, n (%) with other drugs that could possibly influence titration/active patients at 4 months	Women n = 76	Men n = 213	Diff (95%CI)	P <sup>a</sup>
<i>With any other rate-lowering drug</i>				
Baseline	22 (28.94)	61 (28.64)	0.30 (-11.87 to 12.48)	.999
4 mo	16 (21.05)	52 (24.41)	-3.36 (-15.08 to 8.36)	.663
<i>Ivabradine</i>				
Baseline	14 (18.42)	23 (10.80)	7.62 (-2.04 to 17.28)	.088
4 mo	9 (11.84)	17 (7.98)	3.86 (-5.16 to 12.88)	.437
Started	3	9		
Withdrawn	8	15		
<i>Amiodarone</i>				
Baseline	5 (6.58)	26 (12.21)	-5.63 (-12.73 to 1.47)	.174
4 mo	4 (5.26)	23 (10.80)	-5.53 (-12.95 to 1.88)	.233
Started	1	5		
Withdrawn	2	7		
Change from amiodarone to dronedarone		1		
<i>Digitalis</i>				
Baseline	3 (3.95)	15 (7.04)	-3.09 (-8.66 to 2.47)	.338
4 mo	3 (3.95)	13 (6.10)	-2.16 (-7.59 to 3.28)	.481
Started	1	4		
Withdrawn	1	6		
<i>Hypo- and hyperthyroidism medication</i>				
Baseline	7 (9.21)	6 (2.82)	6.39 (-1.37 to 14.16)	.047
4 mo	6 (7.89)	7 (3.29)	4.61 (-2.80 to 12.02)	.180
<i>Inhaled bronchodilators</i>				
Baseline	12 (15.79)	13 (6.10)	9.69 (-0.01 to 19.38)	.019
4 mo	10 (13.16)	13 (6.10)	7.05 (2.09 to 16.20)	.088
<i>With other drugs that can affect blood pressure (nondiuretics)</i>				
Baseline	9 (11.84)	24 (11.27)	0.57 (-8.41 to 9.56)	.999
4 mo	10 (13.16)	36 (16.90)	-3.74 (-13.75 to 6.26)	.560
<i>ARB + neprilysin inhibitor</i>				
Baseline	1 (1.32)	2 (0.94)	0.38 (-2.87 to 3.62)	1
4 mo	4 (5.26)	7 (3.28)	1.98 (-4.48 to 8.43)	.672
Started	3	5		

Withdrawn	0	2		
<i>Dihydropyridine calcium-channel blockers</i>				
Baseline	3 (3.95)	9 (4.23)	-0.28 (-5.42 to 4.87)	.917
4 mo	3 (3.95)	13 (6.10)	-2.16 (-8.48 to 4.17)	.679
Started	0	5		
Withdrawn	0	1		
<i>Nitrates (not sublingual)/hydralazine</i>				
Baseline	6 (7.89)	9 (4.22)	3.67 (-3.86 to 11.20)	.349
4 mo	4 (5.26)	8 (3.76)	1.51 (-4.12 to 7.14)	.572
Started	0	1		
Withdrawn	2	2		
<i>Alpha-blockers</i>				
Baseline	1 (1.32)	11 (5.16)	-3.85 (-7.77 to 0.08)	.149
4 mo	0 (0.00)	13 (6.10)	-6.10 (-10.21 to -1.99)	.060
Started	0	3		
Withdrawn	1	1		
<i>Diuretics (loop/thiazide)</i>				
Baseline	66 (86.84)	170 (79.81)	7.03 (-2.29 to 16.35)	.174
4 mo	62 (81.58)	173 (81.22)	0.36 (-10.17 to 10.89)	.999
<i>Psychotropic drugs<sup>b</sup></i>				
Baseline	30/76 (39.47)	38 (17.84)	21.63 (8.61 to 34.66)	< .001
At 4 mo	27/76 (35.52)	37 (17.37)	18.16 (5.36 to 17.37)	.002

ARB, angiotensin receptor blocker; 95%CI, 95% confidence interval; Diff, difference.

<sup>a</sup>P-value of the interaction between treatment and each subgroup.<sup>b</sup>Psychotropic drugs: antidepressants, anxiolytics, hypnotics, neuroleptics.

**Table 10 of the supplementary data**

Other variables potentially associated with titration

Variables potentially associated with titration 4 months	Women N=76	Men N=213	Diff (95%CI)	P*
<b>Systolic blood pressure</b>				
Baseline, mmHg	113.51 ± 18.08	116.58 ± 18.74	-3.07 (-7.96 to 1.81)	.217
4 mo, mmHg	117.71 ± 17.18	121.18 ± 19.15	-3.47 (-8.38 to 1.44)	.165
<b>SPB ≤100 mmHg</b>				
Baseline	21 (27.63)	41 (19.24)	8.38 (-3.87 to 20.64)	.172
4 mo	13 (17.10)	33 (15.49)	1.61 (-8.15 to 11.37)	.742
<b>Heart rate, beats/min</b>				
Baseline	73.24 ± 14.6.	72.85 ± 13.79	0.38 (-3.31 to 4.08)	.838
4 mo	66.29 ± 11.40	66.27 ± 12.41	0.01 (-3.19 to 3.21)	.993
<b>HR &lt; 50 beats/min</b>				
Baseline	2 (2.63)	5 (2.35)	0.28 (-4.13 to 4.70)	.999
4 mo	3 (3.95)	10 (4.69)	-0.74 (-5.96 to 4.47)	.787
<b>Creatinine, mg/dL</b>				
Baseline	0.90 ± 0.38	1.13 ± 0.52	-0.24 (-0.37 to -0.11)	.0003
4 mo	0.93 ± 0.39	1.12 ± 0.51	-0.18 (-0.31 to -0.06)	.005
<b>Estimated glomerular filtration rate, mL/min/1.73 m<sup>2</sup></b>				
Baseline	73.45 ± 22.15	76.23 ± 21.40	-2.78 (-8.15 to 3.56)	.439
4 mo	73.55 ± 24.36	77.57 ± 21.58	-4.02 (-10.31 to 2.28)	.209
<b>eGFR &lt; 60 mL/min/1.73m<sup>2</sup></b>				
Baseline	16/75 (21.33)	46/212 (21.70)	-0.36 (-11.53 to 10.80)	.999
4 mo	20/75 (26.66)	42/212 (19.81)	6.86 (-5.40 to 19.11)	.282
<b>eGFR &lt; 30 mL/min/1.73 m<sup>2</sup></b>				
Baseline	3/75 (4)	4/212 (1.88)	2.11 (-3.59 to 7.81)	.559
4 mo	3/75 (4)	6/212 (2.83)	1.17 (-4.70 to 7.04)	.909
<b>eGFR, patients with change of level baseline-4 mo: a) ≥ 60; b) 30-59; c) &lt; 30</b>				
Improved	5/76 (6.58)	19/213 (8.92)	-2.34 (-9.99 to 5.31)	.694
Worsened	8/76 (10.53)	14/213 (6.57)	3.95 (-4.60 to 12.51)	.388
Remained similar	63/76 (82.89)	180/213 (84.51)	-1.61 (-12.27 to 9.04)	.883
<b>Sodium, mEq/L</b>				
Baseline	139.84 ± 2.87	139.34 ± 3.33	0.50 (-0.30 to 1.30)	.216
4 mo	140.87 ± 3.15	140.14 ± 3.26	0.73 (-0.12 to 1.57)	.092
<b>Potassium, mEq/L</b>				
Baseline	4.41 ± 0.58	4.49 ± 0.51	-0.08 (-23.80 to 0.06)	.245
4 mo	4.65 ± 0.48	4.67 ± 0.48	-0.01 (-0.14 to 0.11)	.844
<b>K &gt; 5.5 mEq/L</b>				
Baseline	1 (1.32)	4 (1.89)	-0.56 (-3.74 to 2.62)	.750
4 mo	3 (3.95)	10 (4.73)	-0.78 (-6.02 to 4.54)	.792
<b>K &gt; 6 mEq/L</b>				

<i>Baseline</i>	1 (1.32)	1 (0.47)	0.86 (-1.90 to 3.62)	.443
<i>4 mo</i>	1 (1.32)	1 (0.47)	0.86 (-1.90 to 3.62)	.443
<b>Hemoglobin, g/dL</b>	13.65 ± 1.92	14.89 ± 6.97	-1.24 (-2.84 to 0.36)	.128
<i>Baseline</i>	13.13 ± 1.40	13.96 ± 1.76	-0.83 (-1.28 to -0.38)	.0004
<i>4 mo</i>				
<b>Hemoglobin &lt; 12 (women), &lt; 13 (men), g/dL</b>				
<i>Baseline</i>	19 (25.00)	46 (21.60)	3.40 (-7.79 to 14.60)	.542
<i>4 mo</i>	15 (20.83)	49 (23.67)	-2.84 (-13.86 to 8.19)	.622
<b>NYHA</b>				
<i>Baseline</i>				
NYHA II	58 (76.32)	182 (85.45)	-9.13 (-20.69 to 2.43)	.100
NYHA III	18 (23.68)	31 (14.55)	9.13 (-1.54 to 19.80)	.068
<i>4 mo</i>				
NYHA I	14 (18.67)	65 (32.02)	-13.35 (-24.26 to -2.45)	.029
NYHA II	59 (78.67)	130 (64.04)	14.63 (3.25 to 26.01)	.020
NYHA III	2 (2.67)	8 (3.94)	-1.27 (-5.80 to 3.25)	.613
<b>Atrial fibrillation/atrial flutter</b>				
<i>Baseline</i>	14 (18.42)	64 (30.05)	-11.63 (-22.30 to -0.96)	.05
<i>4 mo</i>	9 (11.84)	37 (17.37)	-5.53 (-14.40 to 3.34)	.258
<b>BMI ≤ 19</b>	7 (9.21)	4 (1.87)	7.33 (-0.31 to 14.98)	.011
<b>Flexible diuretic regime/patients with a prescription</b>	39/62 (62.90)	113/173 (65.32)	-2.41 (-17.47 to 12.64)	.852
<i>Flexible diuretic regime/patients with a prescription, HF-nurse group: 82/118</i>	23/33 (69.70)	59/84 (70.24)	-0.54 (-19.56 to 18.48)	.999
<i>Flexible diuretic regime/patients with a prescription, HF-cardiologist group: 66/119</i>	15/29 (51.72)	51/89 (57.30)	-5.58 (-28.75 to 17.60)	.756
<b>European Heart Failure Self-care Behaviour Scale, (min-max) (12-60 worse)</b>	18.30 ± 6.35	20.62 ± 8.27	-2.32 (-4.38 to -0.26)	.027
<i>Question 10. Irregular medication intake score ≥3</i>	2 (2.63)	10 (4.76)	-2.13 (-6.74 to 2.48)	.427

BMI, body mass index; 95%CI, 95% confidence interval; Diff, difference; eGFR, estimated glomerular filtration rate; HR, heart rate; NYHA, New York Heart Association; K, Potassium; SBP, systolic blood pressure.

The data are expressed as No. (%) or mean ± standard deviation.

\*P value of the interaction between treatment and each subgroup.

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