Supplementary appendices

Table 1 appendix: Characteristics of acute decompensated HFREF patients according to PRA tertiles

	Lowest PRA tertile 0.2-0.9 ng/ml/h	Median PRA tertile 1.0-3.3 ng/ml/h	Highest PRA tertile >3.3 ng/ml/h	p
Baseline characteristics				
- Age	68±14	65±13	69±12	0.70
- Male (%)	73	68	83	0.52
- Ischemic etiology (%)	64	45	57	0.81
- LVEF (%)	24±10	23±10	27±9	0.38
- Maximal aerobic capacity (ml/kg/min)	13±4	13±4	12±3	0.57
Baseline parameters				
- HR (bpm)	78±20	88±19	79±16	0.18
- Systolic Blood pressure (mmHg)	132±20	136±19	114±23	**0.001**
- Diastolic blood pressure (mmHg)	73±11	77±19	66±13	**0.04**
Baseline Medical therapy				
- ACE/ARB use (%)	50	45	59	0.24
o ≤50% of target dose	20	31	50	
o >50% of target dose	30	14	9	
- BB use (%)	73	50	87	0.23
o ≤50% of target dose	55	36	61	
o >50% of target dose	18	14	26	

- MRA use (%)	41	32	70	**0.03**
- Loop diuretic use (%)	64	55	74	0.40
Laboratory values				
- Creatinine (mg/dl)	1.4±0.9	1.3±0.5	1.6±0.6	0.43
- NT-proBNP (ng/l)	4317 [2649;7559]	2979 [1699;11498]	3189	0.89
- PRA (ng/ml/h)	0.6 [0.3;0.8]	1.5 [1.2;2.5]	[1428;13428]	**<0.001**
- Aldosterone (ng/ml)	154 [103;185,5]	173 [130;261]	9.5 [5.7;12;1]	**<0.001**
			398 [180;765]	

ACE-i, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; HR, heart rate; LVEF, left ventricular ejection fraction; MRA, mineralocorticoid receptor antagonist; NT-proBNP, N-terminal of the prohormone of B-type natriuretic peptide; PRA, plasma renin activity

Table 2 Appendix: Characteristics of chronic ambulatory HFREF patients according to PRA tertiles

	Lowest PRA tertile 0.2-3.3 ng/ml/h	Median PRA tertile 3.5-15 ng/ml/h	Highest PRA tertile >15.0 ng/ml/h	p-value
Baseline characteristics				
- Age	70±12	65±12	63±11	0.11
- Male (%)	70	64	85	0.18
- Ischemic HF etiology (%)	73	52	58	0.28
- LVEF (%)	33±8	33±8	31±5	0.65
- Maximal aerobic capacity (ml/kg/min)	14±3	15±4	16±6	0.43
Baseline parameters				
- HR (bpm)	65±9	67±11	67±9	0.70
- Systolic Blood pressure (mmhg)	132±18	120±16	119±15	**0.01**
- Diastolic blood pressure (mmhg)	67±11	62±11	60±13	0.08
Medical therapy				
- ACE/ARB use (%)	86	100	96	0.41
o ≤50% of target dose	54	64	44	
o >50% of target dose	32	36	52	
- BB use (%)	96	96	100	0.38
o ≤50% of target dose	32	44	64	

○ >50% of target dose	64	52	36	
- MRA use (%)	83	87	95	0.99
- Loop diuretic use (%)	46	40	62	0.28
Laboratory values				
- Creatinine (mg/dl)	1.3±0.6	1.2±0.5	1.3±0.4	0.80
- Pro BNP (ng/l)	942[376;2595]	531[122;1104]	608[204;1504]	0.13
- PRA (ng/ml/h)	0.9[0.7;2.3]	7.6[5.1;11.4]	24.9[17.6;37.1]	**<0.001**
- Aldosterone (ng/ml)	189[126;259]	231[153;341]	348[157;507]	**0.03**

ACE-i, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; HR, heart rate; LVEF, lef

ventricular ejection fraction; MRA, mineralocorticoid receptor antagonist; NT-proBNP, N-terminal of the prohormone of

B-type natriuretic peptide; PRA, plasma renin activity

Table 3 Appendix: Characteristics of acute HFREF patients according to PRA increase or decrease on day 3 of decongestive therapy compared to baseline PRA level.

	PRA increase during decongestive therapy n=42	PRA decrease During decongestive therapy n=17	p
Baseline characteristics			
- Age	68±13	65±13	0.38
- Male (%)	67	88	0.09
- Ischemic etiology (%)	62	41	0.31
- LVEF (%)	24±4	21±7	0.65
- Maximal aerobic capacity (ml/kg/min)	12±4	14±4	0.24
Baseline parameters			
- HR (bpm)	82±19	87±21	0.17
- Systolic Blood pressure (mmHg)	129±23	121±21	**0.04**
- Diastolic blood pressure (mmHg)	70±15	80±15	0.35
Baseline Medical therapy			
- ACE/ARB use (%)	43	53	0.48
o ≤50% of target dose	29	47	
o >50% of target dose	14	6	
- BB use (%)	71	65	0.59
o ≤50% of target dose	62	41	
o >50% of target dose	9	24	

- MRA use (%)	45	47	0.79
- Loop diuretic use baseline (%)	60	65	0.56
- Cumulative loop diuretic dose during 3 days of decongestive therapy (mg bumetanide equivalent)	4.0±2.8	4.2±3.1	0.97
Laboratory values			
- Creatinine (mg/dl)	1.4±0.6	1.3±0.6	0.87
- NT-proBNP (ng/l)	4997[2433;10659]	2979[1570;10729]	0.53
- PRA (ng/ml/h)	1.3[0.7;4.5]	3.0[1.2;8.7]	**0.02**
- Aldosterone (ng/ml)	172[132;293]	236[169;566]	0.26

ACE-i, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; HR, heart rate; LVEF, lef ventricular ejection fraction; MRA, mineralocorticoid receptor antagonist; NT-proBNP, N-terminal of the prohormone of B-type natriuretic peptide; PRA, plasma renin activity