

**Supplementary Table 1.** Target doses of guideline recommended therapy

<b>Beta-blocker</b>	
Bisoprolol	10 mg
Carvedilol	50 mg
Metoprolol succinate	200 mg
Nebivolol	10 mg
<b>ACE-inhibitor</b>	
Captopril	150 mg
Enalapril	20 mg
Lisinopril	40 mg
Ramipril	10 mg
Perindopril	8 mg
<b>ARB</b>	
Candesartan	32 mg
Losartan	150 mg
Valsartan	320 mg
<b>MRA</b>	
Eplerenone	50 mg
Spironolactone	25 mg

ACE, angiotensin-converting enzyme; ARB, angiotensin II receptor blocker; MRA, mineralocorticoid receptor antagonist

**Supplementary Table 2.** Patient characteristics of HF patients according to 2016 ESC HF Guideline

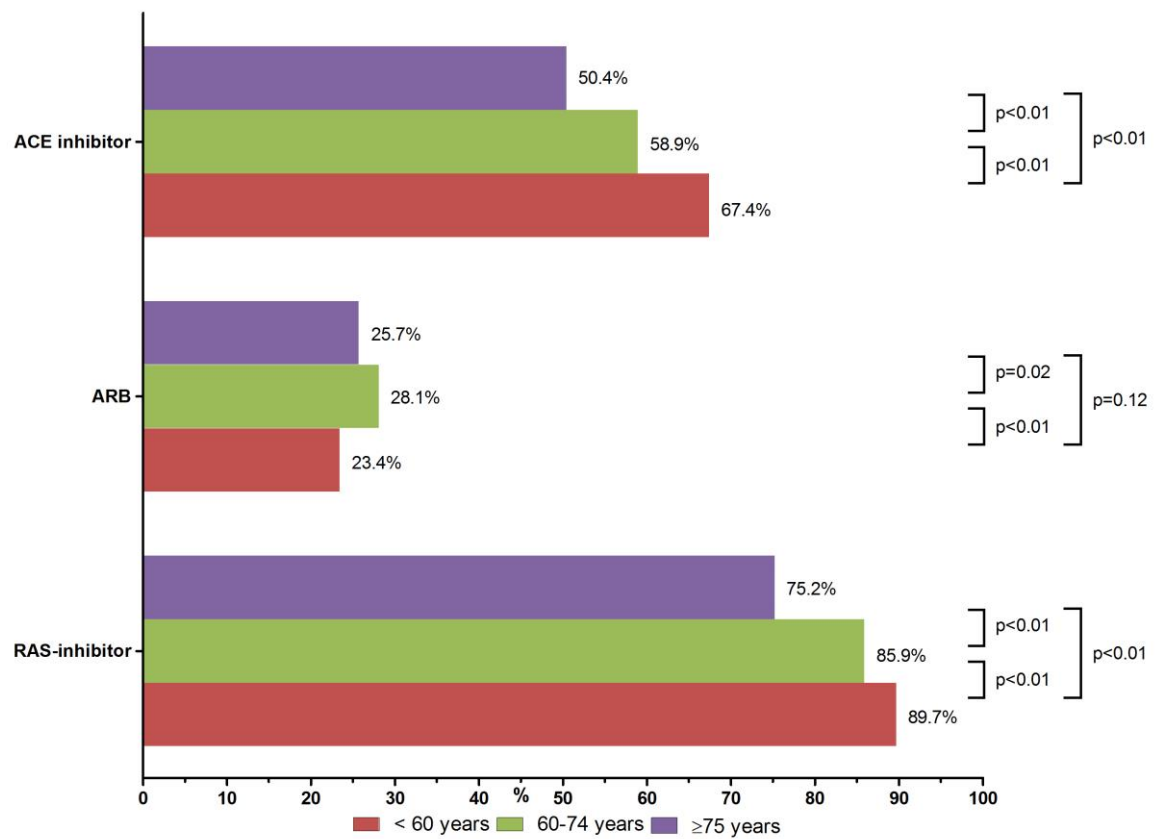
	HFrEF (n=6,786)	HFmrEF (n=1,574)	p-value
Age (years)	71.9 ± 11.8	73.7 ± 11.7	p<0.01
Male gender	4,403 (65.2)	917 (58.4)	p<0.01
BMI, kg/m <sup>2</sup>	27.2 ± 5.1	27.5 ± 5.4	p<0.01
<b>NYHA</b>			
I	1,029 (15.3)	284 (18.2)	
II	3,838 (57.2)	854 (54.8)	
III	1,716 (25.6)	392 (25.2)	p<0.01
IV	121 (1.8)	28 (1.8)	
LVEF, %	29.3 ± 9.0	45.0 ± 5.4	p<0.01
<b>Cause of HF</b>			
Ischemic cause of HF	3,491 (53.1)	691 (45.4)	
Non-ischemic cause of HF	3,082 (46.9)	830 (54.6)	p<0.01
Systolic BP, mmHg	124.8 ± 20.4	129.5 ± 21.6	p<0.01
Diastolic BP, mmHg	71.1 ± 11.2	71.8 ± 12.0	p<0.01
Heart rate, bpm	71.9 ± 13.8	72.5 ± 14.3	p=0.03
Atrial fibrillation	1,575 (23.5)	534 (34.3)	p<0.01
LBBB	1,198 (17.7)	216 (13.7)	p<0.01
QRS ≥130 ms	2,358 (42.0)	416 (31.5)	p<0.01
eGFR	60.3 ± 24.7	56.2 ± 23.7	p<0.01
<b>eGFR</b>			
<30	534 (10.9)	133 (13.7)	
30-59	2,003 (40.8)	439 (45.1)	p<0.01
≥60	2,373 (48.3)	401 (41.2)	
<b>Comorbidity</b>			

Hypertension	2,359 (38.9)	619 (43.7)	p<0.01
Diabetes Mellitus	1,777 (29.3)	397 (28.0)	p=0.10
COPD	1,090 (18.0)	291 (20.5)	p=0.03
OSAS	379 (6.2)	116 (8.2)	p<0.01
Thyroid disease	446 (7.3)	111 (7.8)	p=0.40
Renal insufficiency †	3,205 (55.4)	745 (60.9)	p<0.01
No relevant comorbidity	757 (14.6)	98 (9.0)	p<0.01

BMI, Body Mass Index; NYHA, New York Heart Association classification; LVEF, Left Ventricular Ejection Fraction; HF, Heart Failure; BP, Blood Pressure; LBBB, Left-Bundle Branch Block; eGFR, estimated Glomerular Filtration Rate; NT-proBNP, N-terminal pro Brain Natriuretic Peptide; COPD, Chronic Obstructive Pulmonary Disease; OSAS, Obstructive Sleep Apnea Syndrome.

† Defined as eGFR <60mL/min or a history of renal failure

Supplementary figure 1



Supplementary figure 2

