

## Appendix

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#### **A health economic evaluation of using N-terminal pro brain natriuretic peptide for the management of acute heart failure: a pilot study in an Indonesian tertiary referral hospital**

**Table S1. Characteristics of physical examination and diagnostic test.**

Variables	All Subjects (n=112)	Group A (n=56)	Group B (n=56)	Value of P*
<b>Physical examination</b>				
• Weight (kg)	65 (40-135) <sup>o</sup>	63.5 (42-130)	66.5 (40-135)	0.416
• Height (cm)	165 (148-180)	161.5 (148-177)	165 (148-180)	0.894
• Body mass index (kg/m <sup>2</sup> )	24.6 (14.2-45.5)	23.9 (14.2-43.4)	24.7 (15.0-45.5)	0.620
• Systolic blood pressure (mmHg)	124 ± 22.0 <sup>#</sup>	124.8 ± 23.5	123.6 ± 21.1	0.868
• Diastolic blood pressure (mmHg)	76 (41-121)	80 ± 16.9	74 (41-121)	0.276
• Pulse frequency (beat/min)	84 (55-154)	84 (60-145)	85 (55-154)	0.927
<b>Diagnostic test</b>				
• Hemoglobin at admission (g/dl)	13.6 ± 2.0	13.4 ± 1.8	13.8 ± 2.2	0.331
• Creatinine at admission	1.3 ± 0.4	1.3 ± 0.3	1.3 ± 0.4	0.509
• BUN at admission	22 (7-96)	24.0 (10-90)	21.5 (7-96)	0.102
• GFR at admission	53 (31-124)	51.5 (31-105)	57.5 (31-124)	0.407
• Sodium levels at admission (mEq/L)	136 (121-144)	135 (121-142)	136 (125-144)	0.806
• Echocardiography				
- Left ventricle ejection fraction (%)	21 (14-82)	21 (14-82)	27 (15-60)	0.718

BUN, Blood Urea Nitrogen; GFR, Glomerular Filtration Rate. \*Based on U Mann-Whitney, Chi-Square test, or independent T test (according to data type and distribution), significant when P value<0.05.

<sup>o</sup>Median; range in parentheses (applies to similar values). <sup>#</sup>Average ± standard deviation (applies to similar values).

**Table S2. Characteristics of hospital care.**

Variables	All Subjects (n=112)	Group A (n=56)	Group B (n=56)	Value of P*
• Class of medical care				0.129
– Class 1 [n(%)]	64 (57.1)	32 (57.1)	32 (57.1)	
– Class 2 [n(%)]	25 (22,3)	16 (28.6)	9 (16.1)	
– Class 3 [n(%)]	23 (20.5)	8 (14,3)	15 (26.8)	
• Inhospital therapy				
– ACEI [n(%)]	54 (48.2)	25 (43.9)	29 (52.7)	0.449
○ % target dose <sup>#</sup>		76 ± 28°	75 ± 28	0.986
– ARB [n(%)]	52 (46.4)	26 (46.6)	26 (46.4)	1.0
○ % target dose <sup>\$</sup>		53 ± 25	57 ± 28	0.605
– Beta blocker [n(%)]	106 (94.6)	51 (91.0)	47 (83.9)	0.253
○ % of target dose		21 ± 16	22 ± 11	0.853
– ARNI [n(%)]	6 (5.3)	4 (8.9)	2 (3.5)	0.679
○ % target dose <sup>^</sup>		37.5 ± 17	37.5 ± 17	1.0
– MRA [n(%)]	86 (76.7)	45 (80.3)	41 (73.2)	0.158
○ % target dose <sup>\$</sup>		32 ± 22	30 ± 21	0.629
– Loop diuretic [n(%)]	112 (100)	56 (100)	56 (100)	1.0
– Ivabradine [n(%)]	4 (3.5)	2 (3.5)	2 (3.5)	0.361

ACEI, angiotensin-converting enzyme inhibitor; ARB, angiotensin receptor blocker; ARNI, angiotensin receptor neprilysin inhibitor; MRA, mineralocorticoid receptor antagonist. \*Based on U Mann-Whitney, Chi-Square test, or independent T test (according to data type and distribution), significant when P value<0.05. °Average ± standard deviation (applies to similar values). <sup>#</sup>Target dose for heart failure: ramipril 1×10 mg, lisinopril 1×20-35 mg, captopril 3×50 mg, perindopril 1×5 mg. <sup>\$</sup>Target dose for heart failure: candesartan 1×32 mg, valsartan 2×160 mg. <sup>^</sup>Target dose for heart failure: bisoprolol 1×10 mg, carvedilol 2×25 mg. <sup>\$</sup>Target dose for heart failure: spironolactone 1×100 mg.

**Table S3. Comparison of N-terminal pro brain natriuretic peptide (NT-pro BNP) levels at admission and before discharge.**

Variables	At Admission	Before Discharge	Percentage Decrease	Value of P*
NT-pro BNP (pg/dL) levels	7712 (1296-43759)	2523(121-17827) <sup>°</sup>	67.2%	0,000

\*Based on U Mann-Whitney, Chi-Square test, or independent T test (according to data type and distribution), significant when P value <0.05. <sup>°</sup>Median; range in parentheses (applies to similar values).