

Table 3: Univariable and multivariable analyses of factors predicting mortality in patients with CHF (overall population)

Worse outcome per unitary increase	Overall HF population					
	Univariate			Multivariate		
	HR(95%CI)	Wald X <sup>2</sup>	P-value	HR(95%CI)	Wald X <sup>2</sup>	P-value
Age (years)	1.055 (1.05-1.06)	362.8	<0.001	1.05 (1.04-1.06)	209.0	<0.001
Sex (male vs female)	1.17 (1.06-1.29)	10.0	0.002	1.29 (1.15-1.45)	18.1	<0.001
Height (m)	0.26 (0.17-0.42)	32.4	<0.001			
Weight (kg)	0.99 (0.986-0.991)	70.5	<0.001			
BMI (kg/m <sup>2</sup> )	0.97 (0.96-0.98)	41.6	<0.001			
BP systolic (mmHg)	0.99 (0.99-1.00)	34.1	<0.001			
BP diastolic (mmHg)	0.98 (0.98-0.98)	129.6	<0.001	0.99 (0.99-1.00)	14.7	<0.001
HR (bpm)	1.01 (1.00-1.01)	22.9	<0.001	1.01 (1.00-1.01)	9.7	0.002
NYHA III/IV vs I/II	2.03 (1.84-2.24)	200.7	<0.001	1.56 (1.40-1.74)	64.4	<0.001
Hb (g/dL)	0.82 (0.80-0.85)	195.4	<0.001			

Urea (mmol/L)	1.06 (1.05-1.06)	343.2	<0.001	1.03 (1.02-1.04)	21.8	<0.001
Creatinine (umol/L)	1.00 (1.00-1.00)	183.1	<0.001			
K+ (mmol/L)	1.01 (0.91-1.11)	0.02	0.90			
Na+ (mmol/L)	0.94 (0.93-0.95)	76.8	<0.001			
Lymphocyte (x10 <sup>9</sup> /L)	0.67 (0.62-0.72)	100.7	<0.001			
Albumin (g/L)	0.90 (0.88-0.91)	328.1	<0.001			
Cholesterol (mmol/L)	0.94 (0.90-0.97)	12.0	0.001			
Log NTproBNP (ng/L)	2.80 (2.57-3.06)	524.7	<0.001	1.75(1.56-1.97)	93.0	<0.001
Loop diuretic (Y vs N)	2.10 (1.90-2.40)	180.6	<0.001			
MRA (Y vs N)	1.21 (1.08-1.37)	9.9	0.002			
ACEi (Y vs N)	1.04 (0.94-1.14)	0.5	0.46			
ARB (Y vs N)	0.89 (0.75-1.04)	2.2	0.14			
ACEi or ARB (Y vs N)	1.00 (0.90-1.11)	0.003	0.96			
BB (Y vs N)	0.70 (0.64-0.77)	53.3	<0.001			

Statin (Y vs N)	0.77 (0.70-0.84)	30.0	<0.001			
Digoxin (Y vs N)	1.43 (1.27-1.60)	35.2	<0.001			
Cardiac rhythm						
AF vs Sinus	1.32 (1.19-1.47)	26.3	<0.001			
EF (%)	0.99 (0.98-0.99)	36.7	<0.001			
LVEDD (cm)	1.05 (1.00-1.11)	4.0	0.046			
CVA (Y vs N)	1.55 (1.31-1.83)	26.8	<0.001			
IHD (Y vs N)	1.11 (1.01-1.22)	4.8	0.029			
PVD (Y vs N)	1.80 (1.48-2.20)	34.0	<0.001	1.66 (1.35-2.05)	22.7	<0.001
Diabetes (Y vs N)	1.13 (1.01-1.27)	4.2	0.04			
Reduced mobility (Y vs N)	2.11 (1.89-2.36)	175.1	<0.001			
Prevalence of malnutrition						
<u>CONUT</u>						
Normal	1	-				
Mild malnutrition	1.58 (1.43-1.75)	76.0	<0.001			
Moderate malnutrition	2.96 (2.54-3.45)	195.3	<0.001			
Severe malnutrition	9.41 (5.89-15.06)	87.5	<0.001			

<u>GNRI</u>						
Normal	1	-	-			
Mild malnutrition	1.72 (1.48-2.00)	50.8	<0.001			
Moderate malnutrition	2.68 (2.23-3.22)	111.4	<0.001			
Severe malnutrition	6.14 (4.49-8.40)	129.2	<0.001			
<u>PNI</u>						
Normal	1	-	-			
Moderate malnutrition	2.75 (2.26-3.36)	101.2	<0.001			
Severe malnutrition	2.99 (2.41-3.72)	97.4	<0.001			
				1.26 (1.15-1.37)	27.2	<0.001

ACEi = Angiotensin-converting enzyme inhibitor, AF= atrial fibrillation, ARB = Angiotensin receptor blocker, BB= betablocker, BMI= body mass index, BP= blood pressure, CONUT = Controlling nutritional status, CVA = cerebrovascular disease, ECG= electrocardiogram. EF= ejection fraction, GNRI = Geriatric nutritional risk index, Hb = Haemoglobin, HF= heart failure, HeFREF = heart failure with reduced ejection fraction, HeFNEF = heart failure with normal ejection fraction, HR= heart rate, IHD = ischaemic heart disease, K+ = potassium, LVEDD= left ventricular end diastolic diameter, MRA = Mineralocorticoids receptor antagonists, Na+ = sodium, NYHA = New York Heart Association Class, NTproBNP = N-terminal Pro Brain Natriuretic Peptide, PNI = Prognostic nutritional Index, PVD = peripheral vascular disease, Y= yes, N=No.