

Appendix 5: Random effects Cox proportional hazards model for death in hospital 2021/22

In-Hospital	N=31,801			
No Echocardiography	2.1 8	1.94	2.45	<0.001
Not cardiology in patient	1.5 5	1.40	1.71	<0.001
Age≥75	1.4 7	1.31	1.64	<0.001
NYHA III/IV	1.2 3	1.10	1.39	<0.001
Urea (5mEq/dL increase)	1.1 7	1.15	1.19	<0.001
Systolic Blood Pressure (10mHg decrease)	1.1 6	1.14	1.18	<0.001
No/Mild Oedema	1.1 6	1.06	1.27	0.002
COPD	1.1 4	1.02	1.27	0.016
Ischaemic Heart Disease	1.1 4	1.05	1.25	0.002
Valve Disease	1.0 8	0.99	1.19	0.088
Sodium electrolytes <135mmol/L	1.1 9	1.08	1.31	<0.001
Sodium electrolytes 135 -145mmol/L	1.0 0			
Sodium electrolytes >145 mmol/L	3.1 8	2.76	3.66	<0.001
Creatinine (10umol/L increase)	1.0 2	1.02	1.02	<0.001
Potassium <3.5mEq/L	1.3 9	1.20	1.61	<0.001
Potassium 3.5 - 5.3mEq/L	1.0 0			
Potassium >5.3mEq/L	2.9 6	2.61	3.36	<0.001
Heart rate (5bpm increase)	1.0 3	1.02	1.04	<0.001



Random effects Cox proportional hazards model for 30-day post discharge mortality 2021/22

30 day N=21055	N=21055			
	Hazard Ratio	Lower	Upper	p
Age≥75	1.98	1.65	2.38	<0.001
No beta blocker	1.36	1.16	1.60	<0.001
No ACE inhibitor/ ARB/ARNI	1.86	1.60	2.17	<0.001
No Loop diuretics	1.85	1.49	2.30	<0.001
No cardiology follow-up	1.83	1.52	2.20	<0.001
Systolic blood pressure (10mmHg decrease)	1.13	1.09	1.18	<0.001
COPD	1.15	0.97	1.36	0.12
No Echocardiography	1.38	1.14	1.67	<0.001
Ischaemic Heart Disease	1.16	1.00	1.33	0.05
Urea (5mEq/dL increase)	1.08	1.05	1.12	<0.001
Sodium <135 mmol/L	1.54	1.33	1.79	<0.001
Sodium 135 -145 mmol/L	1.00			
Sodium >145 mmol/L	3.01	2.07	4.36	<0.002
Creatinine (10umol/L increase)	1.02	1.01	1.03	<0.001
Moderate/ Severe Peripheral Oedema	1.30	1.12	1.51	<0.001
Potassium <3.5 mmol/L	1.35	1.07	1.71	0.01
Potassium 3.5 - 5.3 mmol/L	1.00			
Potassium >5.3 mmol/L	2.00	1.36	2.93	<0.001
Not cardiology in patient	1.26	1.07	1.47	0.001
Valve Disease	1.20	1.03	1.40	0.02
Heart rate (5bpm increase)	1.05	1.02	1.08	<0.001
Male	1.17	1.01	1.35	0.035
Length of stay 0-4 days	1.00			
Length of stay 5-8 days	0.93	0.74	1.17	0.54
Length of stay 9-15 days	1.57	1.28	1.93	<0.001
Length of stay ≥16 days	1.99	1.62	2.44	<0.001



Random effects Cox proportional hazards model for one-year post discharge mortality 2021/22

One year		N=20,772		
	Hazard Ratio	Lower	Upper	p
Age≥75	1.89	1.77	2.02	<0.001
No beta blocker	1.20	1.12	1.28	<0.001
No ACE inhibitor/ ARB/ ARNI	1.51	1.42	1.61	<0.001
No cardiology follow-up	1.33	1.25	1.42	<0.001
Systolic blood pressure (10mmHg decrease)	1.07	1.06	1.09	<0.001
Valve Disease	1.27	1.20	1.35	<0.001
Urea (5mEq/dL increase)	1.08	1.06	1.09	<0.001
COPD	1.26	1.18	1.35	<0.001
No Echocardiography	1.17	1.08	1.27	<0.001
Ischaemic Heart Disease	1.26	1.19	1.33	<0.001
Sodium electrolytes <135mmol/L	1.32	1.25	1.41	<0.001
Sodium electrolytes 135 -145mmol/L	1.00			
Sodium electrolytes >145mmol/L	2.01	1.66	2.43	<0.001
Creatinine (10umol/L increase)	1.02	1.01	1.02	<0.001
Heart rate (5bpm increase)	1.03	1.02	1.04	<0.001
Not cardiology in patient	1.42	1.33	1.51	<0.001
Potassium <3.5mmol/L	1.30	1.18	1.43	<0.001
Potassium 3.5 - 5.3mmol/L	1.00			
Potassium >5.3mmol/L	0.97	0.78	1.20	0.77
Male	1.14	1.08	1.21	<0.001
NYHA III/IV	1.08	1.01	1.16	0.024
Moderate/ Severe Peripheral Oedema	1.13	1.07	1.19	<0.001
Length of stay 0-4 days	1.00			
Length of stay 5-8 days	1.18	1.09	1.27	<0.001
Length of stay 9-15 days	1.43	1.32	1.55	<0.001
Length of stay ≥16 days	1.82	1.68	1.97	<0.001