

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Specialties of hospitalised patients when first admitted.**

	Sites (n=1125)	Rate, (%)
Surgery	491	43.6%
Obstetrics & Gynaecology	141	12.5%
Cardiology	91	8.1%
Ear/Nose/Throat	90	8.0%
Respiratory	74	6.6%
Haematology	71	6.3%
Neurology	57	5.1%
Ophthalmology	54	4.8%
Gastroenterology	31	2.8%
Intensive care unit	1	0.1%
Others	24	2.1%

**Supplementary Table 2. Hazard ratios for clinical events.**

### A. Thromboembolism (n=82).

	Univariate analysis				Multivariate analysis			
	HR	95% CI		P	HR	95% CI		P
		Lower limit	Higher limit			Lower limit	Higher limit	
Age	1.06	1.04	1.08	<0.001	1.03	1.01	1.06	0.005
Male	0.85	0.55	1.32	0.46	0.88	0.53	1.48	0.64
Decreased lymphocyte	1.00	0.98	1.01	0.81	1.01	1.00	1.01	0.25
Respiratory rate	0.98	0.92	1.04	0.47	1.01	0.95	1.08	0.78
Hypertension	2.86	1.82	4.48	<0.001	1.62	0.95	2.77	0.08
Coronary artery disease	1.47	0.79	2.74	0.22	0.51	0.21	1.21	0.12
AF/irregular rhythm	2.87	1.51	5.43	0.001	1.90	0.85	4.27	0.12
Heart failure	3.67	1.76	7.66	0.001	1.92	0.73	5.03	0.18
Diabetes mellitus	0.96	0.55	1.67	0.89	0.56	0.27	1.13	0.11
Peripheral artery disease	2.90	1.49	5.67	0.002	2.10	0.92	4.80	0.08
Cancer	2.84	1.54	5.26	0.001	1.94	0.94	4.02	0.07
Obstructive sleep apnea syndrome	3.75	1.37	10.28	0.01	2.06	0.69	6.11	0.19
Liver dysfunction	1.58	0.73	3.43	0.25	1.41	0.55	3.61	0.47
Renal dysfunction	2.88	1.05	7.90	0.04	1.73	0.54	5.56	0.35
Surgery	1.82	0.57	5.79	0.31	2.17	0.60	7.88	0.24
Antiviral drug	0.28	0.18	0.44	<0.001	0.32	0.19	0.55	<0.001
Immunomodulator	0.47	0.30	0.73	0.001	0.62	0.37	1.04	0.07
Chinese herbs	1.39	0.85	2.26	0.19	1.22	0.68	2.19	0.52
Oral anticoagulants	0.24	0.15	0.38	<0.001	0.32	0.19	0.53	<0.001
Parenteral anticoagulants	0.23	0.14	0.37	<0.001	0.39	0.22	0.70	0.001
Antiplatelet	0.45	0.27	0.75	0.002	1.63	0.80	3.31	0.18

\* AF: atrial fibrillation. HR: hazard ratio. CI: confidence interval.

## B. Major bleeding (n=113).

	Univariate analysis				Multivariate analysis			
	HR	95% CI		P	HR	95% CI		P
		Lower limit	Higher limit			Lower limit	Higher limit	
Age	1.03	1.01	1.04	<0.001	1.02	1.00	1.04	<b>0.04</b>
Male	1.50	1.03	2.19	<b>0.03</b>	1.53	1.00	2.32	<b>0.05</b>
Decreased lymphocyte	1.05	1.03	1.07	<0.001	1.03	1.01	1.05	<b>0.01</b>
Respiratory rate	1.02	0.97	1.06	0.46	1.00	0.96	1.05	0.82
Hypertension	1.47	1.01	2.14	<b>0.05</b>	1.22	0.80	1.87	0.35
Coronary artery disease	1.13	0.63	2.01	0.69	1.24	0.61	2.51	0.55
AF/irregular rhythm	0.46	0.15	1.45	0.19	0.47	0.14	1.54	0.21
Heart failure	1.32	0.52	3.33	0.56	1.11	0.42	2.94	0.83
Diabetes mellitus	1.01	0.64	1.60	0.98	1.00	0.60	1.65	0.99
Peripheral artery disease	0.98	0.40	2.40	0.96	1.06	0.38	2.96	0.92
Cancer	1.62	0.84	3.10	0.15	1.17	0.58	2.37	0.65
Obstructive sleep apnea syndrome	1.90	0.60	5.98	0.28	1.68	0.51	5.50	0.39
Liver dysfunction	1.88	1.00	3.50	<b>0.05</b>	1.74	0.88	3.45	0.11
Renal dysfunction	3.12	1.37	7.12	<b>0.01</b>	1.42	0.50	4.00	0.51
Surgery	2.79	1.22	6.37	<b>0.02</b>	2.80	1.08	7.29	<b>0.03</b>
Antiviral drug	1.12	0.68	1.85	0.66	1.07	0.61	1.85	0.82
Immunomodulator	1.32	0.89	1.96	0.17	1.18	0.77	1.82	0.45
Chinese herbs	1.25	0.84	1.87	0.28	1.22	0.78	1.89	0.39
Oral anticoagulants	1.42	0.88	2.29	0.16	1.15	0.69	1.93	0.59
Parenteral anticoagulants	2.38	1.63	3.48	<0.001	1.56	1.01	2.42	<b>0.04</b>
Antiplatelet	0.75	0.40	1.40	0.37	0.52	0.25	1.08	0.08

\* AF: atrial fibrillation. HR: hazard ratio. CI: confidence interval.

## C. Death (n=91).

	Univariate analysis				Multivariate analysis			
	HR	95% CI		P	HR	95% CI		P
		Lower limit	Higher limit			Lower limit	Higher limit	
Age	1.05	1.04	1.07	<0.001	1.03	1.01	1.05	<b>0.01</b>
Male	1.68	1.10	2.57	<b>0.02</b>	1.16	0.69	1.97	0.57
Decreased lymphocyte	1.21	1.16	1.26	<0.001	1.21	1.16	1.27	<0.001
Respiratory rate	1.04	1.00	1.09	<b>0.04</b>	1.00	0.96	1.04	0.96
Hypertension	1.54	1.01	2.33	<b>0.04</b>	1.00	0.59	1.69	0.99
Coronary artery disease	1.74	0.98	3.07	0.06	2.35	1.06	5.19	<b>0.03</b>
AF/irregular rhythm	0.76	0.28	2.07	0.59	0.73	0.19	2.75	0.64
Heart failure	3.09	1.43	6.68	<b>0.004</b>	1.28	0.45	3.63	0.65
Diabetes mellitus	1.85	1.18	2.90	<b>0.01</b>	1.26	0.72	2.20	0.43
Peripheral artery disease	0.87	0.28	2.77	0.82	0.76	0.18	3.25	0.71
Cancer	1.81	0.91	3.60	0.09	1.43	0.67	3.07	0.36
Obstructive sleep apnea syndrome	2.06	0.65	6.52	0.22	3.57	0.99	12.87	<b>0.05</b>
Liver dysfunction	2.50	1.36	4.59	<b>0.003</b>	1.45	0.70	3.01	0.32
Renal dysfunction	6.40	3.40	12.01	<0.001	1.74	0.75	4.05	0.20
Surgery	0.40	0.06	2.84	0.36	0.91	0.12	6.98	0.93
Antiviral drug	1.11	0.68	1.82	0.67	1.76	0.89	3.51	0.11
Immunomodulator	1.32	0.86	2.02	0.21	1.00	0.57	1.74	1.00

Chinese herbs	1.43	0.91	2.23	0.12	0.92	0.54	1.57	0.76
Oral anticoagulants	0.31	0.10	0.98	<b>0.05</b>	0.15	0.05	0.49	<b>0.002</b>
Parenteral anticoagulants	0.60	0.32	0.77	<b>0.002</b>	0.82	0.48	1.39	0.47
Antiplatelet	0.59	0.26	1.35	0.21	0.49	0.18	1.32	0.16

\* AF: atrial fibrillation. HR: hazard ratio. CI: confidence interval.

#### D. Composite outcomes of thromboembolism, bleeding events, and death (n=235).

	Univariate analysis				Multivariate analysis			
	HR	95% CI		P	HR	95% CI		P
		Lower limit	Higher limit			Lower limit	Higher limit	
Age	1.04	1.03	1.05	<b>&lt;0.001</b>	1.02	1.01	1.04	<b>&lt;0.001</b>
Male	1.33	1.03	1.73	<b>0.03</b>	1.40	1.04	1.88	<b>0.02</b>
Decreased lymphocyte	1.05	1.03	1.06	<b>&lt;0.001</b>	1.03	1.01	1.05	<b>0.001</b>
Respiratory rate	1.01	0.98	1.04	0.38	1.01	0.98	1.04	0.60
Hypertension	1.72	1.33	2.23	<b>&lt;0.001</b>	1.23	0.91	1.66	0.18
Coronary artery disease	1.23	0.83	1.81	0.31	0.99	0.61	1.62	0.97
AF/irregular rhythm	1.04	0.59	1.81	0.90	0.93	0.50	1.72	0.81
Heart failure	2.10	1.23	3.58	<b>0.01</b>	1.32	0.71	2.45	0.38
Diabetes mellitus	1.15	0.85	1.57	0.36	0.94	0.66	1.34	0.75
Peripheral artery disease	1.27	0.72	2.23	0.40	1.15	0.61	2.17	0.66
Cancer	2.18	1.47	3.24	<b>&lt;0.001</b>	1.55	1.00	2.41	<b>0.05</b>
Obstructive sleep apnea syndrome	2.14	1.01	4.54	<b>0.05</b>	1.55	0.71	3.38	0.27
Liver dysfunction	1.69	1.09	2.63	<b>0.02</b>	1.57	0.96	2.56	0.07
Renal dysfunction	3.56	2.11	6.01	<b>&lt;0.001</b>	1.96	1.05	3.64	<b>0.03</b>
Surgery	1.74	0.89	3.40	0.10	2.08	0.99	4.37	<b>0.05</b>
Antiviral drug	0.59	0.44	0.78	<b>&lt;0.001</b>	0.66	0.47	0.92	<b>0.02</b>
Immunomodulator	0.81	0.62	1.05	0.11	0.89	0.66	1.20	0.44
Chinese herbs	1.19	0.91	1.57	0.21	1.06	0.78	1.44	0.72
Oral anticoagulants	0.64	0.46	0.89	<b>0.01</b>	0.79	0.55	1.13	0.20
Parenteral anticoagulants	0.47	0.36	0.61	<b>&lt;0.001</b>	0.70	0.51	0.95	<b>0.02</b>
Antiplatelet	1.01	0.68	1.51	0.95	0.68	0.41	1.11	0.12

\* AF: atrial fibrillation. HR: hazard ratio. CI: confidence interval.

**Supplementary Table 3. Hazard ratios for composite of thromboembolism and bleeding events (n=25).**

	Hazard ratios	Confidence interval		P
		Low	High	
Age	1.05	1.01	1.10	<b>0.02</b>
Male	1.14	0.46	2.78	0.78
Decreased lymphocyte	0.98	0.94	1.03	0.47
Respiratory rate	0.91	0.79	1.05	0.18
Hypertension	1.17	0.46	2.97	0.75
Coronary artery disease	0.43	0.09	2.13	0.30
AF/irregular rhythm	1.23	0.26	5.74	0.79
Heart failure	2.29	0.48	10.85	0.30
Diabetes mellitus	0.66	0.20	2.20	0.50
Peripheral artery disease	1.91	0.41	8.80	0.41
Cancer	0.85	0.18	4.11	0.84
Obstructive sleep apnea syndrome	3.63	0.67	19.53	0.13
Liver dysfunction	4.13	1.30	13.09	<b>0.02</b>
Renal dysfunction	2.34	0.36	15.27	0.37
Antiviral drug	0.46	0.16	1.38	0.17
Immunomodulator	1.03	0.39	2.71	0.95
Chinese herbs	2.06	0.62	6.84	0.24
Oral anticoagulants	1.84	0.71	4.78	0.21
Parenteral anticoagulants	0.36	0.13	1.01	<b>0.05</b>
Antiplatelet	1.21	0.36	4.04	0.76

\* AF: atrial fibrillation.

Supplementary Table 4. Subgroup analysis.

A. Systemic thromboembolism (n=37).

	Hazard ratios	Confidence interval		P
		Low	High	
Age	1.07	1.03	1.11	< <b>0.001</b>
Male	0.89	0.41	1.95	0.77
Decreased lymphocyte	1.00	0.96	1.04	0.87
Respiratory rate	1.08	1.01	1.15	<b>0.03</b>
Hypertension	1.97	0.89	4.33	0.09
Coronary artery disease	0.39	0.10	1.48	0.17
AF/irregular rhythm	3.16	1.06	9.46	<b>0.04</b>
Heart failure	0.94	0.15	5.93	0.94
Diabetes mellitus	0.73	0.25	2.07	0.55
Peripheral artery disease	1.30	0.27	6.32	0.75
Cancer	0.24	0.03	1.91	0.18
Obstructive sleep apnea syndrome	2.86	0.61	13.42	0.18
Liver dysfunction	0.42	0.04	3.87	0.44
Renal dysfunction	1.63	0.17	15.69	0.67
Surgery	3.47	0.44	27.41	0.24
Antiviral drug	0.34	0.15	0.77	<b>0.01</b>
Immunomodulator	0.64	0.28	1.47	0.30
Chinese herbs	1.01	0.44	2.31	0.98
Oral anticoagulants	0.61	0.20	1.86	0.39
Parenteral anticoagulants	0.47	0.21	1.08	0.08
Antiplatelet	1.51	0.53	4.30	0.44

\* AF: atrial fibrillation.

B. Venous thromboembolism (n=45).

	Hazard ratios	Confidence interval		P
		Low	High	
Age	1.02	0.99	1.05	0.14
Male	1.13	0.54	2.36	0.74
Decreased lymphocyte	1.00	0.98	1.01	0.64
Respiratory rate	1.15	1.02	1.30	<b>0.02</b>
Hypertension	1.29	0.60	2.78	0.51
Coronary artery disease	0.86	0.26	2.85	0.80
AF/irregular rhythm	1.39	0.42	4.59	0.59
Heart failure	2.73	0.79	9.49	0.11
Diabetes mellitus	0.45	0.16	1.30	0.14
Peripheral artery disease	3.71	1.34	10.25	<b>0.01</b>
Cancer	4.23	1.75	10.24	< <b>0.001</b>
Obstructive sleep apnea syndrome	4.48	1.16	17.38	<b>0.03</b>
Liver dysfunction	1.69	0.47	6.12	0.42
Renal dysfunction	1.55	0.38	6.25	0.54
Surgery	2.16	0.39	11.94	0.38
Antiviral drug	0.37	0.17	0.81	<b>0.01</b>
Immunomodulator	0.57	0.28	1.19	0.14
Chinese herbs	0.96	0.41	2.25	0.92

Oral anticoagulants	0.17	0.08	0.36	< <b>0.001</b>
Parenteral anticoagulants	0.32	0.14	0.75	<b>0.01</b>
Antiplatelet	1.45	0.50	4.20	0.50

\* AF: atrial fibrillation.

**Supplementary Table 5. Antithrombotic treatment in patients with venous thromboembolism and systemic thromboembolism.**

	<b>Patients with systemic thromboembolism (n=37)</b>	<b>Patients with venous thromboembolism (n=45)</b>
Oral anticoagulants, n (%)	5 (13.5)	25 (55.6)
Parenteral anticoagulants, n (%)	16 (43.2)	33 (73.3)
Antiplatelet, n (%)	9 (24.3)	9 (20.0)