

**Supplementary Table 1.** Univariable Cox regression analysis for 30-day mortality after ICU admission in 2012–2016

Variable	Univariable model	
	Hazard ratio (95% CI)	P-value
Male sex	1.24 (1.01–1.53)	0.043
Age (yr)	1.02 (1.01–1.03)	<0.001
Body mass index (kg/m <sup>2</sup> )	0.90 (0.88–0.93)	<0.001
Alcohol consumption		
Non-alcohol user	1	(0.351)
Current alcohol user <sup>a</sup>	0.84 (0.66–1.07)	0.154
Former alcohol user	0.99 (0.73–1.35)	0.965
Smoking status		
Never smoker	1	(0.647)
Current smoker <sup>a</sup>	1.14 (0.84–1.54)	0.400
Former smoker	0.98 (0.79–1.22)	0.874
Charlson comorbidity index	1.39 (1.35–1.43)	<0.001
APACHE II	1.11 (1.10–1.12)	<0.001
Diagnosis of cancer	1.35 (1.08–1.68)	0.009
Postoperative ICU admission	0.46 (0.37–0.56)	<0.001
Year of ICU admission		
2012	1	(0.538)
2013	1.21 (0.89–1.65)	0.226
2014	1.30 (0.95–1.79)	0.101
2015	1.14 (0.84–1.54)	0.399
2016	1.09 (0.77–1.53)	0.632
Socioeconomic status at ICU admission		
Final educational level		
Less than high school	1	(0.201)
More than or equal to high school, less than college	0.82 (0.65–1.05)	0.118
More than or equal to college	0.84 (0.67–1.07)	0.155
Occupation		
Office worker	1	(<0.001)
Professional (licensed job)	0.75 (0.35–1.59)	0.454
House work	1.38 (0.89–2.14)	0.149
Self-employed	1.18 (0.71–1.96)	0.534
Student, military, or day labor	1.18 (0.72–1.93)	0.524
Unemployed	2.31 (1.55–3.45)	<0.001
Religion		
None	1	(0.514)
Protestant	0.88 (0.68–1.14)	0.329
Catholic	1.15 (0.84–1.58)	0.392
Buddhism	1.04 (0.80–1.36)	0.764
Others (Islam, Hindu, Chondogyo)	1.31 (0.69–2.49)	0.403
Medical protection patients <sup>b</sup>	1.44 (0.91–2.28)	0.125

All covariates of  $P < 0.1$  in univariable Cox regression model were included in the final multivariable Cox regression model with main independent variables (socioeconomic status related factors).

ICU: intensive care unit; CI: confidence interval; APACHE: Acute Physiology and Chronic Health Evaluation.

<sup>a</sup>Current smoker or alcohol users were defined as history of smoking or alcohol consumption within 1 month from ICU admission; <sup>b</sup>Medical protection patients are population of medically vulnerable group, which are officially registered in National Health Insurance System in South Korea.