

**Supplemental table 2 – Exploratory multivariable analyses of ICU-acquired
hyponatremia**

	MIMIC-III <i>(n = 23,445)</i>		eICU <i>(n = 88,160)</i>	
Multivariable logistic regression	OR (95% CI)	p-value	OR (95% CI)	p-value
Age (numeric, per 10 years)	1.04 (1.04-1.04)	<0.001	1.00 (1.00-1.00)	0.001
Male (binary)	1.00 (0.99-1.01)	0.952	1.00 (1.00-1.01)	0.549
Hyponatremia (binary)	1.15 (1.13-1.17)	<0.001	1.11 (1.10-1.12)	<0.001
APS III (numeric, per 10 points)	1.05 (1.05-1.06)	<0.001	-	-
APACHE IV (numeric, per 10 points)	-	-	1.04 (1.04-1.04)	<0.001
Number of samples (numeric, per 10 samples)	1.00 (0.99-1.00)	0.125	0.99 (0.98-0.99)	<0.001
Administration of Hypertonic saline or sodium bicarbonate (binary)	1.06 (1.04-1.09)	<0.001	-	-
Neurological Ward (binary)	-	-	1.02 (1.01-1.03)	<0.001
Multivariable Cox regression	HR (95% CI)	p-value	HR (95% CI)	p-value
Age (numeric, per 10 years)	1.30 (1.27-1.32)	<0.001	1.12 (1.09-1.14)	<0.001
Male (binary)	1.00 (0.95-1.06)	0.862	0.99 (0.94-1.05)	0.862
Hyponatremia (binary)	1.59 (1.46-1.73)	<0.001	1.85 (1.71-1.99)	<0.001
APS III (numeric, per 10 points)	1.27 (1.25-1.29)	<0.001	-	-
APACHE IV (numeric, per 10 points)	-	-	1.46 (1.45-1.47)	<0.001
Number of samples (numeric, per 10 samples)	0.90 (0.88-0.93)	<0.001	0.82 (0.79-0.85)	<0.001
Administration of Hypertonic saline or sodium bicarbonate (binary)	1.40 (1.28-1.53)	<0.001	-	-
Neurological Ward (binary)	-	-	1.35 (1.22-1.50)	<0.001

APS III: Acute Physiology Score 3; APACHE IV: Acute Physiology And Chronic Health Evaluation IV;

LOS: Length of stay; OR: Odds ratio; HR: Hazard ratio.