

Supplemental Information

SUPPLEMENTAL TABLE 2 Logistic Regression and Estimated Risk Ratios for Clinically Significant Hyperventilation

Covariate	Odds Ratio	95% CI	Risk Ratio	95% CI	P
Post QI intervention	0.36	(0.27 to 0.47)	0.56	(0.47 to 0.66)	<.001
Age, y	0.98	(0.95 to 1)	0.99	(0.97 to 1)	.15
Type of PICU					
Medical-surgical			[reference]		
Cardiac	0.78	(0.56 to 1.03)	0.8	(0.69 to 0.9)	.001
Time of cardiac arrest					
7am–3pm			[reference]		
3pm–11pm	0.49	(0.34 to 0.69)	0.71	(0.56 to 0.86)	<.001
11pm–7am	0.86	(0.63 to 1.18)	0.97	(0.83 to 1.11)	.63
Etiology of cardiac arrest					
Respiratory			[reference]		
Cardiac	1.22	(0.9 to 1.66)	1.1	(0.94 to 1.27)	.22
Shockable rhythm	0.66	(0.45 to 0.96)	0.7	(0.54 to 0.86)	<.001

Logistic regression model of clinically significant hyperventilation (ventilatory rate ≥ 30 beats per minute) within each epoch, regressed on QI intervention and patient- and event-level covariates. Risk ratios were estimated from odds ratios using relative risk regression with maximum likelihood estimation.

SUPPLEMENTAL TABLE 3 Linear Regression of Ventilatory rate per CPR Epoch

Covariate	Coefficient	95% CI	P
(Intercept)	34.86	(33.05 to 36.68)	<.001
Post QI intervention	−6.3	(−7.78 to −4.83)	<.001
Age, y	−0.15	(−0.31 to 0.002)	.053
Type of PICU			
Medical-surgical		[reference]	
Cardiac	−1.58	(−3.09 to −0.07)	.04
Time of cardiac arrest			
7am–3pm		[reference]	
3pm–11pm	−5.61	(−7.48 to −3.74)	<.001
11pm–7am	−1.59	(−3.36 to 0.19)	.08
Etiology of cardiac arrest			
Respiratory		[reference]	
Cardiac	−1.14	(−2.86 to 0.58)	.2
Shockable rhythm	−2.28	(−4.40 to −0.15)	.036

Linear regression model of the ventilatory rate within each CPR epoch, regressed on QI intervention and patient- and event-level covariates.