

Supplementary Table 2. Physiologic change of vital signs and arterial blood gas after extubation

Variable	HFNC	LFOS	P-value ^a	P-value ^b	P-value ^c
Heart rate (/min)					
On mechanical ventilator	84.50 (74.25–101.75)	85.00 (68.00–90.25)	0.198	-	-
At spontaneous breathing trial	96.00 (83.00–109.00)	85.50 (78.00–98.50)	0.014	-	-
Within 1 hour after extubation	97.00 (83.00–107.00)	86.50 (76.00–99.25)	0.018	0.185	0.911
Within 24 hours after extubation	88.00 (76.00–100.00)	80.00 (76.00–92.00)	0.182	0.001	0.119
Within 48 hours after extubation	88.00 (80.00–98.00)	82.00 (72.00–91.00)	0.067	0.001	0.064
Friedman test	$\chi^2 = 27.033$, P=0.000	$\chi^2 = 8.144$, P=0.043			
Respiratory rate (/min)					
On mechanical ventilator	18.00 (16.00–21.00)	17.00 (15.00–20.00)	0.155	-	-
At spontaneous breathing trial	21.00 (18.00–25.00)	20.50 (18.00–24.25)	0.598	-	-
Within 1 hour after extubation	21.00 (17.00–25.00)	21.00 (19.00–24.25)	0.661	-	-
Within 24 hours after extubation	21.00 (19.00–24.00)	20.00 (18.00–25.00)	0.667	-	-
Within 48 hours after extubation	21.00 (19.00–24.00)	20.00 (18.00–23.00)	0.175	-	-
Friedman test	$\chi^2 = 3.079$, P=0.380	$\chi^2 = 3.103$, P=0.376			
PaCO₂ (mmHg)					
On mechanical ventilator	34.75 (30.05–40.35)	34.40 (28.70–36.15)	0.051	-	-
At spontaneous breathing trial	36.30 (30.58–41.90)	33.20 (30.13–39.50)	0.278	-	-
Within 1 hour after extubation	34.40 (32.00–41.00)	32.80 (30.90–38.30)	0.231	0.654	-
Within 24 hours after extubation	34.00 (30.00–40.00)	33.68 (33.15–39.75)	0.873	0.088	-
Within 48 hours after extubation	34.70 (31.00–39.00)	31.45 (35.30–39.20)	0.989	0.286	-
Friedman test	$\chi^2 = 10.408$, P=0.015	$\chi^2 = 4.303$, P=0.231			
PaO₂/FiO₂ (mmHg)					
On mechanical ventilator	288.00 (208.31–363.81)	333.75 (279.37–379.37)	0.069	-	-
At spontaneous breathing trial	261.88 (206.00–339.44)	297.75 (184.98–384.88)	0.465	-	-
Within 1 hour after extubation	246.67 (180.77–320.05)	277.25 (152.75–370.00)	0.651	-	-
Within 24 hours after extubation	237.75 (175.00–316.75)	287.90 (197.20–369.60)	0.053	-	-
Within 48 hours after extubation	236.50 (193.00–322.75)	277.00 (204.50–350.00)	0.394	-	-
Friedman test	$\chi^2 = 6.768$, P=0.080	$\chi^2 = 1.711$, P=0.634			

Values are presented as median (interquartile range).

HFNC: high-flow nasal cannula; LFOS: low-flow oxygen system; PaCO₂: arterial partial pressure of carbon dioxide; PaO₂/FiO₂: ratio of arterial oxygen partial pressure to fractional inspired oxygen.

^aMann-Whitney U-test between HFNC and LFOS; ^bWilcoxon rank sum test between parameters at spontaneous breathing trial and at each time in HFNC group; ^cWilcoxon rank sum test between parameters at spontaneous breathing trial and at each time in LFOS group.