

**Supplementary Table 1.** Changes in arterial blood gas analysis depending on time points during induction

Variable	Time	Estimated mean (95% CI)		Estimated difference (95% CI) <sup>a)</sup>	P-value
		Mask group (n=26)	HFNC group (n=26)		
PaO <sub>2</sub> (mm Hg)	T0	78.5 (40.8–116.2)	88.9 (50.9–127.0)	10.5 (–42.8 to 63.7)	0.700
	T1	455.9 (418.3–493.6) <sup>b)</sup>	425.9 (388.6–463.3) <sup>b)</sup>	–30.0 (–82.8 to 22.7)	0.265
	T2	482.8 (445.8–519.9) <sup>b)</sup>	507.5 (470.2–544.9) <sup>b)</sup>	24.7 (–27.6 to 77.0)	0.355
	T3	370.7 (333.7–407.8) <sup>b)</sup>	454.2 (416.9–491.5) <sup>b)</sup>	83.5 (31.2 to 135.8)	0.002
PaCO <sub>2</sub> (mm Hg)	T0	43.4 (40.9–45.9)	40.4 (37.8–42.9)	–3.0 (–6.6 to 0.6)	0.098
	T1	42.9 (40.3–45.4)	35.8 (33.2–38.3) <sup>b)</sup>	–7.1 (–10.7 to –3.5)	<0.001
	T2	41.7 (39.1–44.2)	32.9 (30.3–35.4) <sup>b)</sup>	–8.8 (–12.4 to –5.0)	<0.001
	T3	53.6 (51.1–56.2) <sup>b)</sup>	44.7 (42.2–47.3) <sup>b)</sup>	–8.9 (–12.5 to –5.3)	<0.001
pH	T0	7.42 (7.39–7.44)	7.44 (7.42–7.47)	0.03 (0.00 to 0.06)	0.059
	T1	7.43 (7.41–7.45)	7.48 (7.45–7.50) <sup>b)</sup>	0.05 (0.02 to 0.08)	0.001
	T2	7.44 (7.42–7.46)	7.51 (7.49–7.53) <sup>b)</sup>	0.07 (0.04 to 0.10)	<0.001
	T3	7.35 (7.33–7.37) <sup>b)</sup>	7.41 (7.38–7.43) <sup>b)</sup>	0.05 (0.02 to 0.08)	0.001

A linear mixed model was used in the statistical analysis. The P-values of the interactions between the groups and times were 0.007, 0.001, and 0.041 for PaO<sub>2</sub>, PaCO<sub>2</sub>, and pH, respectively.

CI: confidence interval; HFNC: high-flow nasal cannula; PaO<sub>2</sub>: arterial oxygen partial pressure; PaCO<sub>2</sub>: partial pressure of arterial carbon dioxide; T0: preinduction baseline; T1: 2 minutes after preoxygenation; T2: 5 minutes after preoxygenation; T3: at the second tidal volume with mechanical ventilation after intubation.

a) Estimated difference in values between groups; b) P<0.001 compared to baseline in each group.