

## SUPPLEMENTARY MATERIAL

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## Post-extubation high-flow nasal cannula oxygen therapy *versus* non-invasive ventilation in chronic obstructive pulmonary disease with hypercapnic respiratory failure

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**Key words:** pulmonary disease, chronic obstructive; airway extubation; ventilator weaning; non-invasive ventilation.

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**Supplementary Table 1.** Parameters of HFNC and NIV. Data are shown as means ± SD.

High-flow nasal cannula	Values	
Mean temperature -	$35.8 \pm 2.17$ degree Celsius	
Mean Flow rate -	43.66 ± 11.36 L/min	
Mean FiO <sub>2</sub> -	$30.26 \pm 6.72$	
Non-invasive ventilation mode		
Mean support -	$16.5 \pm 3.33 \text{ cmH}_20$	
Mean PEEP -	$7 \pm 0.87 \text{ cmH}_20$	
Mean FiO2 -	24.37 ± 3.16	

**Supplementary Table 2.** Arterial blood gas analysis parameters. Data are shown as means ± SD.

Groups	рН	PaCO <sub>2</sub>	PaO <sub>2</sub> /FiO <sub>2</sub>
High-flow nasal			
cannula			
Baseline	$7.42 \pm 0.03$	$47.73 \pm 6.68$	$249 \pm 74.82$
1 hour	$7.41 \pm 0.03$	$49.4 \pm 6.19$	$254.53 \pm 83.58$
24 hours	$7.40 \pm 0.04$	$50.33 \pm 8.17$	$262.6 \pm 93.86$
48 hours	$7.40 \pm 0.04$	$49.53 \pm 7.23$	274.8 ± 83.46
72 hours	$7.39 \pm 0.05$	$49.20 \pm 9.11$	$279.6 \pm 84.53$
p-value	0.04	0.2	< 0.05
Non-invasive			
ventilation mode			
Baseline	$7.41 \pm 0.03$	47.19 ± 5.01	264.38 ± 47.85
1 hour	$7.40 \pm 0.02$	49.06 ± 3.62	266.44 ± 49.94
24 hours	$7.40 \pm 0.02$	49.38 ± 4.53	276.62 ± 57.96
48 hours	$7.39 \pm 0.04$	54.88 ± 4.73	283.12 ± 55.55
72 hours	$7.39 \pm 0.05$	51.31 ± 0.12	289.62 ± 52.29
p-value	< 0.05	0.148	< 0.05

Friedman repeated measures analysis of variance on ranks

