

## **Spontaneous breathing during ECMO in acute respiratory failure**

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**Online supplementary material – Table 4S**

**Table 4S.** Hemodynamic and respiratory characteristics at different levels of sweep gas flow in 8 ARDS patients who underwent spontaneous breathing test

|  |                             | <b>RESPONDERS</b> | <b>NON RESPONDERS</b> |
|--|-----------------------------|-------------------|-----------------------|
|  |                             | n=4               | n=4                   |
| Mean arterial pressure; mmHg           | <i>Low sweep gas flow</i>   | 92±8*             | 87±4                  |
|  | <i>Basal sweep gas flow</i> | 88±5*             | 89±12                 |
|  | <i>High sweep gas flow</i>  | 87±10*            | 89±10                 |
| Mean pulmonary arterial pressure; mmHg | <i>Low sweep gas flow</i>   | 32±6*             | 31±7                  |
|  | <i>Basal sweep gas flow</i> | 28±1*             | 30±8                  |
|  | <i>High sweep gas flow</i>  | 28±4*             | 29±8                  |
| Heart rate; bpm                        | <i>Low sweep gas flow</i>   | 97±20*            | 99±12                 |
|  | <i>Basal sweep gas flow</i> | 92±22*            | 98±13                 |
|  | <i>High sweep gas flow</i>  | 89±20*            | 96±9                  |
| Cardiac output; L/min                  | <i>Low sweep gas flow</i>   | 6.5±1.2           | 8.3±2.6               |
|  | <i>Basal sweep gas flow</i> | 6.3±1.4           | 8.2±2.2               |
|  | <i>High sweep gas flow</i>  | 6.4±1.2           | 8.5±2.5               |
| Pulmonary shunt; %                     | <i>Low sweep gas flow</i>   | 38±28             | 46±7                  |
|  | <i>Basal sweep gas flow</i> | 43±22             | 49±6                  |
|  | <i>High sweep gas flow</i>  | 54±21             | 51±12                 |
| Arterial pH                            | <i>Low sweep gas flow</i>   | 7.432±0.043       | 7.478±0.038           |
|  | <i>Basal sweep gas flow</i> | 7.445±0.036       | 7.500±0.014           |
|  | <i>High sweep gas flow</i>  | 7.467±0.034       | 7.510±0.017           |
| Arterial pCO <sub>2</sub> ; mmHg       | <i>Low sweep gas flow</i>   | 37±6              | 37±7                  |
|  | <i>Basal sweep gas flow</i> | 35±6              | 35±8                  |
|  | <i>High sweep gas flow</i>  | 34±4              | 33±7                  |
| Arterial pO <sub>2</sub> ; mmHg        | <i>Low sweep gas flow</i>   | 101±53            | 81±27                 |
|  | <i>Basal sweep gas flow</i> | 101±30            | 76±20                 |
|  | <i>High sweep gas flow</i>  | 86±46             | 73±21                 |
| Total VO <sub>2</sub> ; L/min          | <i>Low sweep gas flow</i>   | 230±74            | 302±81                |
|  | <i>Basal sweep gas flow</i> | 211±52            | 318±87                |
|  | <i>High sweep gas flow</i>  | 206±55            | 306±113               |

“Responders” refers to patient who reaches a spontaneous respiratory rate equal or less than 10 bpm with a esophageal pressure swing equal or lower than 8 cmH<sub>2</sub>O at the high gas low, ("relief"). “Non responders” is considered a patient who doesn't reach the threshold values of the "relief" at the

highest gas flow. Data are shown for descriptive purpose. Due to the very small size of the two groups, no statistical analysis was performed. \* One missing value.