Supplementary Table S2. Association between dead space ratio (≤ 0.6 vs. > 0.6) and mechanical ventilation

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|  | Log Mechanical Ventilation |  | Mechanical Ventilation(< 120 hrs vs >120 hrs) |  |
| Mean Dead Space |  |  |  |  |
|  | Coeff (95% CI) | p-value1 | OR (95% CI) | p-value2 |
| Day 1 Vd/Vt< 0.6> 0.6 | REF-0.051 (-0.54, 0.44) | 0.82 | REF0.42 (0.08, 2.26) | 0.31 |
|  |  |  |  |  |
| Day 2 Vd/Vt< 0.6> 0.6 | REF0.046 (-0.44, 0.53) | 0.84 | REF1.23 (0.21, 7.10) | 0.81 |
|  |  |  |  |  |
| Days 3-5 Vd/Vt< 0.6> 0.6 | REF-0.78 (-1.15, -0.42) | **<0.001** | REF0.002 (7.61e-6, 0.44) | **0.024** |
|  |  |  |  |  |

The minimum and maximum dead space values for category < 0.6 were 0.23-0.60. The minimum and maximum dead space values for category > 0.6 were 0.61-0.87.

1Multivariable linear regression ascertaining differences in log mechanical ventilation relative to day 1, day 2, days 3-5 dead space adjusting for age at surgery, gender, weight, cardiac anatomy category, and maximum postoperative lactate. Mechanical ventilation approximated a normal distribution following a log transformation.

2 Multivariable logistic regression ascertaining likelihood of mechanical ventilation greater than 120 hours relative to day 1, day 2, days 3-5 dead space adjusting for age at surgery, gender, weight, cardiac anatomy category, and maximum postoperative lactate.