Supplementary Table S1

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| Table S1. List of variables used for the conditional Random Forest model |
| Variables |
| Mean Pulmonary artery pressure (PAP) |
|  | At intensive care unit admission |
|  | 1 hour before extubation |
|  | 1 hour after extubation |
|  | 6 hours after extubation |
|  | 12 hours after extubation |
|  | 6 hours after intensive care unit admission |
|  | 12 hours after intensive care unit admission |
|  | 24 hours after intensive care unit admission |
|  | 48 hours after intensive care unit admission (2nd postoperative day) |
|  | 72 hours after intensive care unit admission (3rd postoperative day) |
| Peripheral oxygen saturation (SO2) |
|  | At intensive care unit admission |
|  | 1 hour before extubation |
|  | 1 hour after extubation |
|  | 6 hours after extubation |
|  | 12 hours after extubation |
|  | 6 hours after intensive care unit admission |
|  | 12 hours after intensive care unit admission |
|  | 24 hours after intensive care unit admission |
|  | 48 hours after intensive care unit admission (2nd postoperative day) |
|  | 72 hours after intensive care unit admission (3rd postoperative day) |
| Mean arterial pressure (MAP) |
|  | At intensive care unit admission |
|  | 1 hour before extubation |
|  | 1 hour after extubation |
|  | 6 hours after extubation |
|  | 12 hours after extubation |
|  | 6 hours after intensive care unit admission |
|  | 12 hours after intensive care unit admission |
|  | 24 hours after intensive care unit admission |
|  | 48 hours after intensive care unit admission (2nd postoperative day) |
|  | 72 hours after intensive care unit admission (3rd postoperative day) |
| Lactate level (LAC) |
|  | At intensive care unit admission |
|  | 1 hour before extubation |
|  | 1 hour after extubation |
|  | 6 hours after extubation |
|  | 12 hours after extubation |
|  | 6 hours after intensive care unit admission |
|  | 12 hours after intensive care unit admission |
|  | 24 hours after intensive care unit admission |
|  | 48 hours after intensive care unit admission (2nd postoperative day) |
|   | 72 hours after intensive care unit admission (3rd postoperative day) |

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| Table S2. Results of ROC analysis |  |  |  |
|   | Variables | Youden Index | Cut-off value | Model Quality\* |
| Prolonged chest tube drainage (> 7 days) |  |  |  |
|  | PAP 12 hours after extubation | 0.067 | 12.5 mmHg | 0.43 |
|  | MAP 1 hour after extubation | 0.004 | 82.0 mmHg | 0.33 |
|  | MAP 12 hours after extubation | 0.050 | 83.5 mmHg | 0.31 |
|  | SO2 6 hours after extubation | 0.010 | 99.5% | 0.38 |
|  | LAC 1 hour before extubation | 0.091 | 3.25 mg/dl | 0.45 |
|  | PAP 12 hours after ICU admission  | 0.215 | 14.5 mmHg | **0.52** |
|  | MAP 72 hours after ICU admission | 0.098 | 75.5 mmHg | 0.38 |
|  | MAP 6 hours after ICU admission | 0.013 | 35.5 mmHg | 0.33 |
| Chylothorax |  |  |  |
|  | PAP 12 hours after extubation | 0.227 | 13.5 mmHg | **0.53** |
|  | MAP 1 hour after extubation | 0.040 | 47.5 mmHg | 0.34 |
|  | MAP 1 hour before extubation | 0.027 | 43.5 mmHg | 0.31 |
|  | PAP 48 hours after ICU admisssion | 0.082 | 11.5 mmHg | 0.41 |
| Ascites |  |  |  |
|  | PAP 1 hour after extubation | 0.374 | 17.5 mmHg | **0.62** |
|  | PAP 6 hours after extubation | 0.411 | 17.5 mmHg | **0.61** |
|  | PAP 72 ours after ICU admission | 0.315 | 13.5 mm Hg | **0.59** |
|  | MAP 6 hours after extubation | 0.000 | 96.0 mmHg | 0.24 |
|  | MAP 24 hours after ICU admission | 0.022 | 83.5 mmHg | 0.23 |
|  | SO2 1 hour after extubation | 0.000 | 100% | 0.17 |
|  | LAC 48 hours after ICU admission | 0.398 | 1.45 mg/dl | **0.66** |
|  | PAP 6 hours after ICU admission | 0.379 | 17.5 mmHg | **0.61** |
|  | SO2 1 hour after extubation | 0.025 | 80.5 % | 0.35 |
| Adverse events |  |  |  |
|  | PAP 12 hours after extubation | 0.266 | 16.5 mmHg | **0.51** |
|  | MAP 1 hour after extubation | 0.004 | 40.5 mmHg | 0.18 |
|  | LAC 24 hours after ICU admission | 0.208 | 1.95 mg/dl | 0.47 |
|   | SO2 6 hours after ICU admission | 0.263 | 99.5 % | 0.42 |
| \*: more than 0.5 is considered good (bold) |  |  |  |