Supplemental Table 1: Test characteristics by individual criteria and overall.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Criteria | N | Sensitivity(95% CI) | Specificity(95% CI) | PPV(95 % CI) | NPV(95% CI) | CCHMC Events Predicted | CHOP Events Predicted |
| ECMO  | 10 | 0% (0-2.4%) | 99.8% (99.7-99.9%) | 0.0% | 97.5% | 0 | 0 |
| Hyperkalemia  | 23 | 0% (0-2.4%) | 99.6% (99.4-99.8%) | 0.0% | 97.5% | 0 | 0 |
| Intracranial Hypertension  | 110 | 1.3% (0.2-4.6%) | 98.2% (97.9-98.5%) | 1.8% (0.5-6.9%) | 97.5% (97.5-97.6%) | 2 | 0 |
| Vasoactive Shock  | 419 | 16.9% (11.3-23.8%) | 93.5% (92.9-94.1%) | 6.2% (4.4-8.7%) | 97.8% (97.6-98.0%) | 19 | 7 |
| Pulmonary Hypertension  | 41 | 2.6% (0.7-6.5%) | 99.4% (99.2-99.6%) | 9.8% (3.8-23.1%) | 97.6% (97.5-97.6%) | 0 | 4 |
| Severe Cardiac Dysfunction  | 15 | 9.7% (5.6-15.6%) | 96.8% (96.2-97.2%) | 7.1% (4.4-11.2%) | 97.7% (97.6-97.8%) | 10 | 5 |
| Renal Replacement Therapy  | 38 | 2.0% (0.4-5.6%) | 99.4% (99.2-99.6%) | 7.9% (2.6-21.6%) | 97.6% (97.5-97.6%) | 3 | 0 |
| Profound Acidosis  | 261 | 14.3% (9.2-20.8) | 96.1% (95.6-96.5%) | 8.4% (5.8-12.1%) | 97.8% (97.7-97.9%) | 19 | 3 |
| High Mean Airway Pressure  | 231 | 16.2% (10.8-23.0%) | 96.6% (96.1-97.1%) | 10.8% (7.6-15.1%) | 97.9% (97.7-98.0%) | 14 | 11 |
| Lactic Acidosis  | 46 | 3.9% (1.4-8.3%) | 99.3% (99.1-99.5%) | 13.0% (6.1-25.8%) | 97.6% (97.5-97.7%) | 5 | 1 |
| Total | 870 | 40.3% (32.5-48.5%) | 86.7% (85.8-87.6%) | 7.1% (5.9-8.6%) | 98.3% (98.1-98.5%) | 39\* | 23\* |

*\*Total events predicted is less than individual criteria prediction totals as patients could meet more than one criteria at a time.*