**Supplemental Table 3. Patient Characteristic and Management Variable Comparisons Between Patients Successfully Extubated and Patients Who Failed Extubation After Cardiac Surgery**

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| --- | --- | --- | --- |
| Characteristics | Successful Extubation  *(n* = 229) | Failed Extubation  *(n* = 31) | *pa* |
| Preoperative |  |  |  |
| Male gender | 126 (55) | 19 (61) | 0.510 |
| Age at surgery, days | 75 (9, 125) | 18 (5, 102) | 0.037 |
| Gestational age, weeks | 38 (37, 39) | 38 (37, 40) | 0.290 |
| Admission weight, kg | 4.1 (3.2, 5.1) | 3.6 (3, 5) | 0.099 |
| Admission weight-for-age z score | -1.3 (-2.4, -0.2) | -1.3 (-2.4, 0.5) | 0.925 |
| Genetic or congenital anomaly | 82 (36) | 12 (39) | 0.752 |
| Airway anomaly | 26 (11) | 5 (16) | 0.389 |
| Intubated prior to surgery | 22 (10) | 5 (16) | 0.340 |
| Single ventricle physiology | 65 (28) | 14 (45) | 0.057 |
| Operative |  |  |  |
| STAT category |  |  | 0.012 |
| 1-3 | 162 (71) | 15 (48) |  |
| 4-5 | 67 (29) | 16 (52) |  |
| CPB time, minutes | 88 (64, 120) | 108 (85, 133) | 0.007 |
| Postoperative |  |  |  |
| Postoperative MV duration, hours | 25 (10, 69) | 44 (15, 91) | 0.240 |
| Diaphragm paresis | 4 (2) | 3 (10) | 0.039 |
| Vocal cord paresis | 25 (11) | 7 (23) | 0.079 |
| VIS at extubation | 7.5 (5, 7.5) | 7.5 (5, 7.5) | 0.812 |
| iNO treatment at extubation | 21 (9) | 2 (7) | 1.000 |
| Sedation at extubation | 98 (43) | 14 (45) | 0.803 |
| Dexamethasone at extubation | 100 (44) | 18 (58) | 0.131 |
| Post-extubation NIV support |  |  | 0.266 |
| HFNC | 142 (62) | 16 (52) |  |
| PAP | 87 (38) | 15 (48) |  |

CPB = cardiopulmonary bypass, iNO = inhaled nitric oxide, MV = invasive mechanical ventilation, STAT = Society of Thoracic Surgeons-European Association for Cardiothoracic Surgery cardiac surgery mortality category, VIS = vasoactive inotropic score.

*a*Statistical comparisons performed using Chi-square, Fisher Exact, or Mann Whitney U test, as appropriate, for categorical/ordinal or continuous data.

Data presented as *n* (%) or median (interquartile range) as appropriate.