Supplemental Table B

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| **Supplemental Table B – Comparison of Survivors and Non-Survivors** |
|  | Survivors | Non-Survivors | P |
|  | 13 | 14 |  |
| **Demographics** |  |  |  |
| Age, months | 2.6 (0.2-5.8) | 2.6 (0.3-5.5) | 0.87 |
| Weight, kg | 4.4 (3.1-5.6) | 4.4 (3.3-5.4) | 0.83 |
| PIM2, % | 3.0 (1.4-7.3) | 3.8 (2.2-9.8) | 0.52 |
| Cyanotic heart disease | 12 (92.3%) | 10 (71.4%) | 0.16 |
| **Reason for mechanical ventilation** |  |  |  |
| Respiratory failure | 8 (61.5%) | 9 (61.5%) | 0.88 |
| Post-operative | 7 (53.8%) | 4 (28.6%) | 0.18 |
| Cardiac arrest | 0 (0%) | 1 (7.1%) | 0.33 |
| Other | 1 (7.1%) | 0 (0%) | 0.29 |
| **Medical and Surgical history** |  |  |  |
| Prematurity | 0 (0%) | 1 (7.1%) | 0.33 |
| Chronic lung disease | 1 (7.7%) | 1 (7.1%) | 0.96 |
| Immunocompromised | 1 (7.7%) | 0 (0%) | 0.29 |
| Congenital syndromes | 1 (7.7%) | 3 (21.4%) | 0.32 |
| Prior surgery | 3 (23.1%) | 0 (0%) | 0.06 |
| **Documented infection** |  |  | 0.30 |
| None | 7 (53.8%) | 8 (57.1%) |  |
| Viral | 2 (15.4%) | 0 (0%) |  |
| Bacterial | 4 (30.8%) | 6 (42.9%) |  |
| Cardiac surgery | 9 (69.2%) | 5 (35.7%) | 0.08 |
| HFJV initiated within 28 days of surgery | 5 (38%) | 7 (50%) | 0.18 |
| Time on mechanical ventilation prior to HFJV, days | 7.8 (1.3-14.5) | 14.2 (3.6-33.1) | 0.59 |
| **Pre-HFJV Arterial Blood Gas** |  |  |  |
| pH | 7.28 (7.18-7.32) | 7.20 (7.17-7.24) | 0.27 |
| PaCO2, mmHg | 64.0 (52.5-79.0) | 70.0 (50.0-76.5) | 0.81 |
| PaO2, mmHg | 50.0 (40.0-72.5) | 56.5 (42-81.3) | 0.47 |
| Base excess, mEq/L | -1 (-3-6.5) | -2.5 (-4.8-1.0) | 0.27 |
| HCO3-, mmol/L | 28.5 (24.0-34.5) | 27.0 (26.3-28.8) | 0.23 |
| Lactate, mmol/L | 1 (0.8-3.0),n=7 | 1.6 (1.0-4.5), n=9 | 0.54 |
| **Pre-HFJV mechanical ventilation and lung mechanics** |  |  |  |
| Respiratory frequency, breaths/min | 30 (26-35) | 31 (29-37) | 0.40 |
| Inspiratory pressure, cmH2O | 22 (20-24) | 22 (20-25) | 0.69 |
| Set PEEP, cmH2O | 8 (6-10) | 9.5 (7.5-10.0) | 0.18 |
| FiO2 | 0.73 (0.58-1.00) | 1.00 (0.48-1.00) | 0.71 |
| Measured mPaw, cmH2O | 14.5 (11.8-18.0) | 16 (13-17.5) | 0.74 |
| VCO2, ml/min | 29.5 (17.9-49.8) | 36.5 (29.5-56.7) | 0.25 |
| Compliance, ml/cmH2O | 1.5 (1.1-3.3) | 1.7 (1.3-2.4) | 0.86 |
| Airway resistance, cmH2O/L/s | 93 (63.5-143.5) | 75 (51-120) | 0.36 |
| Vt, ml/kg | 7.4 (5.2-9.0) | 6.1 (5.1-8.8) | 0.56 |
| **Initial HFJV Settings** |  |  |  |
| Peak inspiratory pressure, cmH2O | 45 (40-50) | 43.5 (34.0-48.5) | 0.46 |
| Respiratory frequency, breaths/min | 360 (300-380) | 360 (360-380) | 0.40 |
| Inspiratory time, s | 0.02 (0.02-0.03) | 0.02 (0.02-0.03) | 0.76 |
| FiO2 | 1.00 (0.65-1.00) | 1.00 (0.48-1.00) | 0.55 |
| **Post-HFJV Arterial Blood Gas** | 13 | 10 |  |
| pH | 7.36 (7.24-7.46) | 7.33 (7.28-7.42) | 0.55 |
| PaCO2, mmHg | 52.0 (40.8-69.3) | 46 (40.3-57.8) | 0.51 |
| PaO2, mmHg | 48.0 (38.0-63.3) | 60.0 (44.5-72.0) | 0.21 |
| Base excess/deficit, mmol/L | 0.5 (-2.3-5.3) | -2.5 (-3.5-0.3) | 0.12 |
| HCO3-, mEq/L | 27.5 (22.8-31.0) | 25.5 (22.8-27.0) | 0.29 |
| Lactate, mmol/L | 3.8 (1.8-7.8),n=4 | 1.5 (1.0-2.3), n=7 | 0.11 |
| **Outcomes** |  |  |  |
| Time on mechanical ventilation, days | 18.9 (11.2-47.5) | 15.0 (5.8-n/a) | 0.54 |
| Time on HFJV, days | 1.8 (0.8-4.7) | 0.5 (0.1-1.2), n=6 | 0.07 |
| Supplemental oxygen at discharge | 6 (46.2%) | n/a | NR |
| Inhaled nitric oxide | 8 (61.5%) | 10 (71.4%) | 0.18 |
| ECMO | 0 (0%) | 6 (42.9%) | 0.01 |

Table legend: continuous variables are presented as median (interquartile range) and categorical variables as n (%), HFJV=high-frequency jet ventilation, PIM2=pediatric index of mortality, ECMO=extracorporeal membrane oxygenation