Supplementary Table 4: Univariate absolute risk and robust regression models for each outcome based on each risk factor1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 30-day mortality | Infection | Cardiac Arrest | Mech. Vent. (days)2 | ICU LOS  (days) | Hospital LOS  (days) |
| Age at Operation (months) | **-0.002\*** | **-0.0012\*** | **-0.002\*** | **Nonlinear\*** | **Nonlinear\*** | **Nonlinear\*** |
| Gestational Age at Birth (weeks) | **-0.003\*** | **-0.004\*** | 0.001 | **-0.17\*** | **-0.20\*** | **-0.28\*** |
| Male | -0.003 | 0.003 | -0.003 | 0.10 | 0.41 | 0.56 |
| Weight (kg) | **-0.003\*** | **-0.004\*** | **-0.003\*** | **-0.18\*** | **-0.62\*** | **-0.91\*** |
| Height (cm) | **-0.001\*** | **-0.001\*** | **-0.002\*** | **-0.05\*** | **-0.16\*** | **-0.23\*** |
| Height-for-Age Z-score | **Nonlinear\*** | **-0.009\*** | **-0.009\*** | **-0.06\*** | 0.02 | **Nonlinear\*** |
| Weight-for-Age Z-score | **Nonlinear\*** | **-0.007\*** | -0.004 | **-0.10\*** | -0.04 | -0.24 |
| Weight-for-Height Z-score | -0.004 | 0.002 | 0.002 | **Nonlinear\*** | -0.11 | **Nonlinear\*** |
| Major non-Cardiac Anomaly | **0.055\*** | 0.041 | **0.085\*** | 0.08 | 1.11 | **3.85\*** |
| Cyanotic Heart Disease | 0.004 | 0.010 | 0.028 | **0.22\*** | **1.37\*** | **4.07\*** |
| Cardiopulmonary bypass   Time on CPB (min) | -0.017  **0.001\*** | -0.019  **0.002\*** | -0.001  **0.001\*** | 0.03  **0.01\*** | **-1.02\***  **0.05\*** | 0.22  **0.08\*** |
| Preoperative Mechanical  Ventilation | **0.060\*** | **0.063\*** | **0.056\*** | **3.68\*** | **8.22\*** | **14.55\*** |
| RACHS-1  2  3  4  5-6 | -0.012  -0.003  0.019  **0.066\*** | **-0.030\***  0.003  0.005  **0.077\*** | 0.004  **0.041\***  0.016**\***  **0.106** | **0.26\***  **0.86\***  **1.43\***  **6.57\*** | -0.13  **2.43\***  **4.90\***  **16.35\*** | **1.06\***  **6.70\***  **9.64\***  **25.09\*** |
| Defined Genetic Syndrome | 0.017 | 0.026 | **0.032\*** | 0.17 | 0.35 | 0.97 |

1For categorical variables, each outcome probability is reported based on a unit change in the risk factor with the units noted in the first column when appropriate. For non-categorical variables, the value in the table represents from robust linear regression model, or the coefficient of the linear relationship between the independent and dependent variables in the units listed.

\*Statistically significant results are shown in bold and starred.