|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table S1. Outcome predictors for Ventriculoperitoneal Shunt Surgery for idiopathic Normal Pressure Hydrocephalus. | S1A: Length of Stay | | S1B: Non-home Discharge | | S1C: Complications | | S1D: Mortality | | |
| Continuous Variables | Percent Change per Unit Change++ | P Value | OR for unit change | P Value | OR for unit change | P Value | OR for unit change | | P Value |
| Age | 0.4%  (0.2 – 0.5%) | < .001\*\* | 1.05  (1.04 – 1.06) | < .001\*\* | 0.99  (0.98 – 1.00) | .15 | 1.01  (0.94 – 1.08) | | .84 |
| Comorbidity Score | 6.0 %  (5.1 – 6.9%) | <.001\*\* | 1.32  (1.24 – 1.41) | <.001\*\* | 1.26  (1.16 – 1.37) | <.001\*\* | 1.60  (1.18 – 2.19) | | .003\*\* |
| Year | -0.4%  (-1.9 – 1.2%) | .65 | 1.00  (0.90 – 1.11) | .99 | 0.89  (0.78 – 1.02) | .08 | 0.75  (0.42 – 1.35) | | .34 |
| Hospital Caseload | -0.3%  (-0.6 – -0.02%) | .03\*\* | 1.00  (0.99 – 1.02) | .97 | 1.00  (0.99 – 1.01) | .92 | 0.92  (0.82 – 1.04) | | .19 |
|  | | | | | | | | | |
| Categorical Variables | Change | P Value | OR | P Value | OR | P Value | OR | | P Value |
|  |  |  |  |  |  |  | | | |
| Male | 2.8%  (0.3 – 5.3%) | .03\*\* | 0.88  (0.74 – 1.05) | .16 | 0.79  (0.62 – 1.01) | .06 | N/A | | N/A |
| Female | Reference | | | | | | | | |
|  | | | | | | | | | |
| White | -7.5%  (-15.5 – 1.2%) | .09 | N/A | N/A | N/A | N/A | N/A | | N/A |
| Black | 8.9%  (-3.0 – 21.5%) | .15 | N/A | N/A | N/A | N/A | N/A | | N/A |
| Hispanic | -2.9%  (-12.8 – 8.1%) | .59 | N/A | N/A | N/A | N/A | N/A | | N/A |
| Asian or Pacific Islander | -3.7%  (-16.8 – 11.4%) | .61 | N/A | N/A | N/A | N/A | N/A | | N/A |
| Native American | -5.0%  (-22.1 – 16.0%) | .62 | N/A | N/A | N/A | N/A | N/A | | N/A |
| Other | Reference | | | | | | | | |
|  | | | | | | | | | |
| Private Insurance | -13.3%  (-20.7 – -5.1%) | .002\*\* | N/A | N/A | N/A | N/A | N/A | N/A | |
| Medicaid without Private insurance | -9.3%  (-18.4 – 0.7%) | .07 | N/A | N/A | N/A | N/A | N/A | N/A | |
| Medicare without Private insurance or Medicaid | -12.9%  (-20.4 – -4.7%) | .003\*\* | N/A | N/A | N/A | N/A | N/A | N/A | |
| Other | Reference | | | | | | | | |
|  | | | | | | | | | |
| Midwestern Hospital | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Southern Hospital | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Northeastern Hospital | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| Western Hospital | Reference | | | | | | | | |
|  | | | | | | | | | |
| Non-Teaching Hospital | -1.3%  (-5.0 – 2.4%) | 0.48 | 0.96  (0.72 – 1.27) | .72 | 1.18  (0.85 – 1.65) | .27 | 1.84  (0.41 – 8.29) | .36 | |
| Teaching Hospital | Reference | | | | | | | | |
|  | | | | | | | | | |
| Any Complications | 40.2%  (35.0 – 45.5%) | <.001\*\* | 3.62  (2.73 – 4.78) | <.001\*\* | N/A | N/A | N/A | N/A | |
| No Complications | Reference | | | | | | | | |
|  | | | | | | | | | |
| Patient Residential ZIP Codes in 1st Income Quartile (Lowest) | 0.9%  (-2.9 – 4.9%) | 0.65 | 1.01  (0.77 – 1.32) | .93 | 1.14  (0.81 – 1.60) | .46 | N/A | N/A | |
| Patient Residential ZIP Codes in 2nd Income Quartile | -0.1%  (-3.5 – 3.4%) | 0.94 | 1.00  (0.78 – 1.28) | .99 | 0.94  (0.68 – 1.30) | .69 | N/A | N/A | |
| Patient Residential ZIP Codes in 3rd Income Quartile | -3.4%  (-6.7 – 0.1%) | .054\*\* | 0.90  (0.71 – 1.16) | .42 | 0.72  (0.50 – 1.04) | .08 | N/A | N/A | |
| Patient Residential ZIP Codes in 4th Income Quartile | Reference | | | | | | | | |
|  | | | | | | | | | |
| Small Hospital | -9.2%  (-15.5 – -2.5%) | .008\*\* | N/A | N/A | N/A | N/A | N/A | N/A | |
| Medium Hospital | 2.1%  (-2.3 – 6.8%) | 0.35 | N/A | N/A | N/A | N/A | N/A | N/A | |
| Large Hospital | Reference | | | | | | | | |

OR – Odds Ratio; ZIP – Zone Improvement Plan; N/A – Not Applicable

\*\*Denotes a statistically significant relationship, alpha level .05.

++ The parameter estimate provided for each fixed effect in SAS utilizing SAS Procedure PROC MIXED with the dependent variable set as the log-transformation of length of stay was transformed into change for unit change where change for unit change = (exp(parameter estimate) – 1) x 100 %.