**Supplemental Table B**. Multivariable analysis for the association between TIAE or desaturation to SpO2 < 80%, any TIAE, severe TIAE and Mid-term outcomes (ICU mortality, duration of ICU stay, duration of mechanical ventilation) among tracheal intubations from compliant sites (defined as outcome data report>95%).

|  |  |  |  |
| --- | --- | --- | --- |
|  | ICU mortality (Odds ratio, 95% CI) | Duration of ICU stay(% increase, 95% CI) | Duration of mechanical ventilation(% increase, 95% CI) |
| Any TIAE or desaturation<80%\* | 1.08 | (0.83, 1.40) | P=0.57 | 7% | (-1, 16) | P=0.08 | 12% | (3, 20) | **P=0.007** |
| No event | baseline |  |  | baseline |  |  | baseline  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Any TIAE\*\* | 1.12 | (0.82, 1.54) | P=0.46 | 1% | (-9, 12) | P=0.79 | 6% |  (-4, 17) | P= 0.23 |
| No TIAE | baseline |  |  | baseline |  |  | baseline  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Severe TIAE\*\*\* | 1.91 | (1.29, 2.82) | **P=0.001** | 13% | (-3, 28) | P=0.11 | 16% | (0, 31) | **P=0.049** |
| No severe TIAE | baseline |  |  | baseline |  |  | baseline |  |  |

TI: tracheal intubation; TIAE: tracheal intubation associated event

A multivariable regression model for each event category (any TIAE or desaturation<80%, any TIAE, or severe TIAE) included patient level covariates associated with that event

\*N=3,273 for ICU mortality. The overall model was significant (p<0.0001). N=3,225 for ICU length of stay. The overall model was significant (p<0.0001), R-square=0.1398. N=2,738 for duration of mechanical ventilation, overall model was significant with p<0.0001, R-square =0.0718.

\*\*N=3,273 for ICU mortality. The overall model was significant (p<0.0001). N=3,225 for ICU length of stay. The overall model was significant (p<0.0001), R-square= 0.1347. N=2,738 for duration of mechanical ventilation, overall model was significant with p<0.0001, R-square = 0.0643.

\*\*\*N=3,273 for ICU mortality. The overall model was significant (p<0.0001). N=3,718 for ICU length of stay. The overall model was significant (p<0.0001), R-square= 0.1342. N=2,738 for duration of mechanical ventilation, overall model was significant with p<0.0001, R-square =0.0654.