|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Parallel controls** | | **Historical controls** | |
| **Process measures** | | | | |
|  | P-value | Adjusted odds ratios or Beta coefficient for AlertWatch Use (95% CI) | P-value | Adjusted odds ratios or Beta coefficient for AlertWatch Use (95% CI) |
| Minutes mean arterial pressure < 55 mmHg\* | <0.001 | Beta = -0.14 | <0.001 | Beta = -0.34 |
| Crystalloid cc/kg/hr\* | 0.03 | Beta = -0.03 | <0.001 | Beta = -0.15 |
| Median tidal volume > 10 ml/kg | 0.100 | 0.75 (0.53-1.06) | <0.001 | 0.21 (0.14-0.31) |
| **Outcome measures** | | | | |
| Myocardial injury | 0.76 | 0.94 (0.62-1.42) | 0.004 | 0.55 (0.37-0.83) |
| Stage 1 acute kidney injury | 0.73 | 0.97 (0.83-1.14) | 0.06 | 0.86 (0.73-1.01) |
| Stage 2 acute kidney injury | 0.09 | 0.73 (0.52-1.05) | 0.01 | 0.63 (0.44-0.91) |
| Mortality 30 day | 0.94 | 1.01 (0.72-1.44) | 0.02 | 0.61 (0.40-0.93) |
| Hospital length of stay\* | <0.001 | Beta = -0.07 | <0.001 | Beta = -0.14 |
| Encounter charges\* | <0.001 | Beta = -0.05 | N/A | N/A |

Supplemental Digital Content 4: Multivariable model results for comparison of AlertWatch cases to parallel controls and historical controls restricted to **Clinical Anesthesia First Year Residents** only. Odds ratios and beta coefficients reflect impact associated with AlertWatch use.

Adjusted for patient demographics, anthropometrics, clinical diagnoses, procedural risk, and in-room provider characteristics. For dichotomous outcomes, a logistic regression model was used. For continuous outcomes, generalized linear model with Poisson distribution was used.

CI = Confidence Interval

\* Continuous outcomes and therefore measure of effects size (adjusted odds ratios and 95% confidence intervals) are not available for reporting. The beta coefficient and 95% confidence interval for AlertWatch use is reported. The beta coefficient indicates in what direction the use of AlertWatch demonstrated impact: a lower (negative beta coefficient) or a higher (positive beta coefficient) expected value.

\*\* Historical comparison for encounter charges was not performed due to changes in cost accounting processes