Supplemental Table 4. Is there an association between Leapfrog Safe Practices Score (SPS) and rates of CLABSI and CAUTI reported by Hospital Compare? Coefficients and 95% confidence intervals from linear regression models, by SPS measure

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **#1: Leadership** | **#2: Feedback** | **#3: Training** | **#4: Risks & Hazards** | **#19: Hand hygiene** | **Total SPS** |
| **CATHETER-ASSOCIATED URINARY TRACT INFECTION (CAUTI) STANDARDIZED INFECTION RATIOS (N=1,092)** | | | | | |  |
| **SAFE PRACTICES SCORE MEASURE (standardized)** | 0.032  (-0.02, 0.08) | -0.023  (-0.07, 0.03) | -0.003  (-0.05, 0.05) | 0.021  (-0.03, 0.07) | 0.033  (-0.02, 0.08) | 0.022  (-0.03, 0.07) |
| **Teaching hospital?** *(Ref=No)* | 0.196\*  (0.04, 0.35) | 0.207\*\*  (0.05, 0.36) | 0.203\*  (0.05, 0.36) | 0.197\*  (0.04, 0.35) | 0.196\*  (0.04, 0.35) | 0.195\*  (0.04, 0.35) |
| **Bed size** *(Ref=<50)* |  |  |  |  |  |  |
| 50-200 | 0.129  (-0.44, 0.69) | 0.142  (-0.42, 0.71) | 0.140  (-0.43, 0.71) | 0.130  (-0.44, 0.70) | 0.121  (-0.45, 0.69) | 0.127  (-0.44, 0.69) |
| >200 | 0.384  (-0.18, 0.95) | 0.399  (-0.16, 0.96) | 0.397  (-0.17, 0.96) | 0.387  (-0.18, 0.95) | 0.378  (-0.19, 0.94) | 0.383  (-0.18, 0.95) |
| **Ownership** *(Ref=Public)* |  |  |  |  |  |  |
| Private, not for profit | -0.141  (-0.33, 0.05) | -0.138  (-0.33, 0.05) | -0.137  (-0.33, 0.05) | -0.135  (-0.33, 0.06) | -0.139  (-0.33, 0.05) | -0.138  (-0.33, 0.05) |
| Private, for profit | -0.102  (-0.31, 0.11) | -0.098  (-0.31, 0.11) | -0.096  (-0.31, 0.12) | -0.097  (-0.31, 0.11) | -0.102  (-0.31, 0.11) | -0.010  (-0.31, 0.11) |
| **Safety net hospital?** | 0.035  (-0.12, 0.19) | 0.032  (-0.12, 0.19) | 0.034  (-0.12, 0.19) | 0.038  (-0.12, 0.19) | 0.038  (-0.12, 0.19) | 0.038  (-0.12, 0.19) |
| **R2** | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 |
| **CENTRAL LINE-ASSOCIATED BLOODSTREAM INFECTION (CLABSI) STANDARDIZED INFECTION RATIOS (N=1,017)** | | | | | | |
| **SAFE PRACTICES SCORE MEASURE (standardized)** | -0.008  (-0.04, 0.02) | -0.017  (-0.05, 0.01) | -0.018  (-0.05, 0.01) | -0.013  (-0.05, 0.02) | 0.005  (-0.03, 0.04) | -0.016  (-0.05,-0.02) |
| **Teaching hospital?** *(Ref=No)* | -0.009  (-0.10, 0.08) | -0.007  (-0.10, 0.08) | -0.06  (-0.10, 0.09) | -0.008  (-0.10, 0.08) | -0.012  (-0.10, 0.08) | -0.005  (-0.10, 0.09) |
| **Bed size** *(Ref=<50)* |  |  |  |  |  |  |
| 50-200 | 0.282  (-0.70, 1.26) | 0.307  (-0.68, 1.29) | 0.296  (-0.28, 1.28) | 0.283  (-0.70, 1.26) | 0.260  (-0.72, 1.24) | 0.294  (-0.69, 1.27) |
| >200 | 0.327  (-0.65, 1.31) | 0.351  (-0.63, 1.33) | 0.340  (-0.64, 1.32) | 0.327  (-0.65, 1.31) | 0.305  (-0.67, 1.28) | 0.338  (-0.64, 1.32) |
| **Ownership** *(Ref=Public)* |  |  |  |  |  |  |
| Private, not for profit | -0.139\*  (-0.26, -0.02) | -0.141\*  (-0.26, -0.02) | -0.139\*  (-0.26, -0.02) | -0.142\*  (-0.26, -0.02) | -0.141\*  (-0.26, -0.02) | -0.139\*  (-0.26, -0.02) |
| Private, for profit | 0.020  (-0.11, 0.15) | 0.017  (-0.12, 0.15) | 0.020  (-0.11, 0.15) | 0.019  (-0.11, 0.15) | 0.017  (-0.12, 0.15) | 0.021  (-0.11, 0.15) |
| **Safety net hospital?** | 0.008  (-0.09, 0.10) | 0.006  (-0.09, 0.10) | 0.008  (-0.09, 0.10) | 0.006  (-0.09, 0.10) | 0.008  (-0.09, 0.10) | 0.006  (-0.09, 0.10) |
| **R2** | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |

Note: Standardized regression coefficients reflect change in dependent variable for one standard deviation change in SPS measure; 95% confidence intervals are provided in parentheses. Evidence of association between Safe Practices Score measures and outcomes evaluated using (1) measures of statistical significance, with p-values of less than 0.05 interpreted as statistically significant; and (2) effect size, evaluated as the change in CLABSI or CAUTI SIR for a metric change in Safe Practices Score measure of interest.

\*p<0.05; \*\*p<0.01; \*\*\*p<0.001