**Appendix III.** Results from multivariable multilevel models comparing hospitals that use neuraxial anesthesia to hospitals that do not; ORs for binary variables, for continuous outcomes exponentiated coefficients from the log model depicting % change compared to reference.

|  |  |
| --- | --- |
|  | **Hospital-level Neuraxial Use** |
|  | **[Reference=Hospitals that do not use neuraxial]** |
|   | **KNEE** | **HIP** |
| Oral Morphine Equivalents\*\* | -3.2% (-10.6%; 4.6%) | 6.7% (-7.6%; 23.1%) |
| Length of Stay\*\* | 0.7% (0.5%; 0.9%) | -2.7% (-3.0%; -2.5%)\* |
| Cost of Hospitalization\*\* | -10.5% (-14.4%; -6.3%)\* | -10.8% (-15.1%; -6.4%)\* |
|  |  |  |
| Respiratory Complications | 1.02 (0.89; 1.17) | 1.05 (0.88; 1.24) |
| Cardiac Complications | 0.82 (0.71; 0.95)\* | 0.90 (0.70; 1.17) |
| Blood Transfusion | 0.80 (0.62; 1.03) | 0.74 (0.56; 0.97)\* |
| Intensive Care Unit Utilization | 1.24 (1.17; 1.31)\* | 1.02 (0.54; 1.90) |

\* P<0.05

\*\*% change

Models adjusted for age, sex, race, insurance type, hospital annual procedure volume, hospital teaching status, hospital location, hospital bed size, year of procedure, general anesthesia use, PCA use, intravenous acetaminophen, NSAIDs, Cyclooxygenase-2 Inhibitors, Ketamine, Pregabalin/Gabapentin, peripheral nerve block use, Deyo-Charlson comorbidity index, history of substance use/abuse, pain conditions, psychiatric comorbidities, sleep apnea, obesity