Supplementary Table 2. Univariate predictors of hospital length of stay after surgery and anesthesia

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|  n = 711 | **Hospital Length of Stay After Surgery** (Mean days ± SD) | P-value |
| **Preoperative variables** |  |  |
| Age, years |  | 0.0021 |
| Sex |  |  |
| Male | 3.7 (4.2) | 0.0132 |
| Female | 3.8 (2.8) |  |
| Baseline living situation, n = 644 |  |  |
| Independent  | 3.8 (3.5) |  |
| Nursing Home / Facility | 6.7 (5.3) | <0.0012 |
| Marital status, n = 701 |  |  |
| Married / Partner | 3.8 (3.9) |  |
| Other | 3.8 (2.4) | 0.0242 |
| Body mass index, mg/Kg2, n = 703 |  | 0.1531 |
| ASA physical status |  |  |
| < 3 | 2.9 (1.7) |  |
| ≥ 3 | 4.2 (4.1) | <0.0012 |
| Metabolic equivalents of task, n = 611 |  |  |
| < 4 | 3.3 (2.7) |  |
| ≥ 4 | 3.9 (2.2) | <0.0012 |
| Depression, n = 698 |  |  |
| No | 3.7 (3.7) |  |
| Yes | 4.0 (3.1) | 0.0482 |
| Anxiety, n = 700 |  |  |
| No | 3.7 (3.7) |  |
| Yes | 3.7 (2.8) | 0.9312 |
| Total number of medications, n=708 |  | <0.0011 |
| Preoperative opioid use, n = 708 |  |  |
| No | 3.5 (2.5) |  |
| Yes | 4.3 (4.7) | <0.0012 |
| Number of past previous surgeries, n = 663 |  | 0.4871 |
| Case classification, n = 707 |  |  |
| Elective | 3.4 (2.2) |  |
| Non-elective | 8.2 (9.2) | <0.0012 |
| **Intraoperative variables** |  |  |
| Invasiveness \* |  |  |
| Tier 1 and 2 | 2.6 (2.3) |  |
| Tier 3 and 4 | 4.4 (3.9) | <0.0012 |
| Type of anesthesia |  |  |
| TIVA | 4.6 (5.4) |  |
| TIVA + volatile | 3.8 (2.3) |  |
| Volatile | 3.5 (3.7) | 0.0023 |
| BIS monitoring |  |  |
| No | 3.4 (3.7) |  |
| Yes | 4.0 (3.4) | 0.0022 |
| Estimated blood loss, n = 688 |  |  |
| < 500 ml | 3.6 (3.6) |  |
| 501-999 ml | 4.9 (2.9) |  |
| > 1000 ml | 6.0 (3.0) | <0.0013 |
| Transfusion of blood products |  |  |
| No | 3.5 (3.0) |  |
| Yes | 7.2 (6.3) | <0.0012 |
| Length of surgery, min |  | <0.0011 |
| Intraoperative MEA |  | <0.0011 |
| **Postoperative variables** |  |  |
| Mean pain score on postoperative day1n = 694 |  | <0.0011 |
| MEA on postoperative day 1 |  | <0.0011 |

SD: Standard deviation, ASA: American Society of Anesthesiologists physical status, TIVA: Total Intravenous Anesthesia, BIS: Bispectral Index, MEA: morphine equivalents amount

\*Invasiveness: Tier 1, microdiscectomy, lumbar laminectomy or anterior cervical procedures, minimally invasive fusions; Tier 2, lumbar fusion, trauma, or posterior cervical fusion procedures, tumor, infection, deformity, or combined anterior and posterior cervical procedures.

1 Pearson’s product moment correlation test

2 Wilcoxon rank sum tests were used

3 Kruskal-Wallis rank sum test