**Supplementary Table 3.** Univariate associations for hospital length of stay after surgery

|  |  |  |
| --- | --- | --- |
| N = 218 | HLOS | P- value |
| median [25th, 75th percentile] |  |
| Age, years |  | 0.104a |
| Sex |  | 0.106b |
| Male | 4 [3, 5] |  |
| Female | 4 [3, 5]0 |
| Body Mass Index, Kg.m2 [N = 216] |  | 0.013a |
| College degree or higher [N = 211] |  | 0.474b |
| College degree or higher | 4 [3, 6] |  |
| Less than college degree | 4 [3, 5] |  |
| ASA physical status  |  | <0.001b |
| 1 and 2 | 4 [2, 4] |  |
| 3 and 4 | 4 [3, 5] |  |
| METS [N = 208] |  | <0.001b |
| < 4 | 5 [4, 6] |  |
| > 4 | 4 [3, 5] |  |
| Total number of medications |  | <0.001a |
| Chronic use of opioids |  | 0.007b |
| No | 4 [3, 5] |  |
| Yes | 4 [4, 6] |  |
| Alcohol consumption [N = 192] |  | 0.111b |
| No | 4 [3, 5] |  |
| Yes | 4 [3, 5] |  |
| Depression |  | 0.042b |
| No | 4 [3, 5] |  |
| Yes | 4 [4, 6] |  |
| Psychiatric history |  | 0.198b |
| No | 4 [3, 5] |  |
| Yes | 4 [3, 7] |  |
| Mini-Cog score |  | 0.285a |
| Animal Verbal Fluency Test |  | 0.127a |
| FRAIL scale [N = 217] |  | <0.001c  |
|  Score 0 (robust)  | 3 [2, 4] |  |
|  Scores 1 and 2 (pre-frail)  | 4 [3, 5] |  |
|  Scores 3 and 5 (frail)  | 4 [4, 6] |  |
| Surgical invasiveness d |  | <0.001b |
| Tier 1 + 2 | 3 [2, 5] |  |
| Tier 3 + 4 | 4 [4, 6] |

HLOS: Hospital Length of Stay, ASA: American Society of Anesthesiologists, METS: Metabolic Equivalent of Task.

a Spearman’s rank-order correlation test

b Mann-Whitney U test

c Kruskal-Wallis rank sum test

d Surgical invasiveness: tier 1 and 2, microdiscectomy, lumbar laminectomy or anterior cervical procedures, minimally invasive fusions; tier 3 and 4, lumbar fusion, trauma, or posterior cervical fusion procedures, tumor, infection, deformity, or combined anterior and posterior cervical procedures.