Supplementary Table 5. Patients characteristics and univariate analysis for 30-day mortality.

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|  |  | **30-day Mortality** | |  |
|  | Total  n = 716 (%) | Yes  n = 12 (1.7) | No  n = 704 (98.3) | P-value |
| **Preoperative variables** |  |  |  |  |
| Age, years, mean ± SD | 73.6 ± 6.0 | 74.3 ± 7.1 | 73.6 ± 6.0 | 0.7411 |
| Male, n (%) | 352 (49.2) | 6 (50.0) | 346 (49.1) | 1.0002 |
| Baseline living situation, n (%), n = 649 |  |  |  |  |
| Independent | 620 (95.5) | 11 (91.7) | 609 (95.6) |  |
| Nursing Home / Facility | 29 (4.5) | 1 (8.3) | 28 (4.4) | 0.4253 |
| Marital status, n (%), n = 706 |  |  |  |  |
| Married / Partner | 491 (69.5) | 9 (75.0) | 482 (69.5) |  |
| Other | 215 (30.5) | 3 (25.0) | 212 (30.5) | 1.0003 |
| Body mass index, Kg/m2, mean ± SD, n = 707 | 29.0 ± 5.5 | 28.8 ± 6.2 | 29.0 ± 5.5 | 0.9521 |
| ASA physical status, n (%) |  |  |  |  |
| < 3 | 243 (33.9) | 2 (16.7) | 241 (34.2) |  |
| ≥ 3 | 473 (66.1) | 10 (83.3) | 463 (65.8) | 0.3563 |
| Metabolic equivalents of task, n (%), n = 612 |  |  |  |  |
| < 4 | 169 (27.6) | 3 (60.0) | 166 (27.3) |  |
| ≥ 4 | 443 (72.4) | 2 (40.0) | 441 (72.7) | 0.1323 |
| Depression, n (%), n = 702 |  |  |  |  |
| No | 462 (65.8) | 6 (54.5) | 456 (66.0) |  |
| Yes | 240 (34.2) | 5 (45.5) | 235 (34.0) | 0.5243 |
| Anxiety, n (%), n = 704 |  |  |  |  |
| No | 513 (72.9) | 6 (60.0) | 507 (73.1) |  |
| Yes | 191 (27.1) | 4 (40.0) | 187 (26.9) | 0.4723 |
| Total number of medications  median [25th-75th], n = 713 | 7 [5-11] | 8 [5-11] | 7 [5-11] | 0.7494 |
| Preoperative opioid use, n = 713 |  |  |  |  |
| No | 450 (63.1) | 8 (66.7) | 442 (63.1) |  |
| Yes | 263 (36.9) | 4 (33.3) | 259 (36.9) | 1.0003 |
| Number of past previous surgeries  median [25th-75th], n = 665 | 4 [2-6] | 4 [3-6] | 4 [2-6] | 0.9724 |
| Case classification, n (%), n = 711 |  |  |  |  |
| Elective | 655 (92.1) | 8 (72.7) | 647 (92.4) |  |
| Non-elective | 56 (7.9) | 3 (27.3) | 53 (7.6) | 0.0493 |
| **Intraoperative variables** |  |  |  |  |
| Invasiveness \* n (%) |  |  |  |  |
| Tier 1 and 2 | 255 (35.6) | 3 (25.0) | 252 (35.8) |  |
| Tier 3 and 4 | 461 (64.4) | 9 (75.0) | 452 (64.2) | 0.5533 |
| Type of anesthesia, n (%) |  |  |  |  |
| TIVA | 98 (13.7) | 3 (25.0) | 95 (13.5) |  |
| TIVA + Volatile | 285 (39.8) | 8 (66.7) | 277 (39.9) |  |
| Volatile | 333 (46.5) | 1 (8.3) | 332 (47.2) | 0.0143 |
| BIS monitoring, n (%) |  |  |  |  |
| No | 273 (38.1) | 3 (25.0) | 270 (38.4) |  |
| Yes | 443 (61.9) | 9 (75.0) | 434 (61.6) | 0.5503 |
| Estimated blood loss, n = 693 |  |  |  |  |
| < 500 ml | 600 (86.6) | 9 (75.0) | 591 (86.8) |  |
| 501-999 ml | 45 (6.5) | 1 (8.3) | 44 (6.5) |  |
| > 1000 ml | 48 (6.9) | 2 (16.7) | 46 (6.8) | 0.2103 |
| Transfusion of blood products |  |  |  |  |
| No | 659 (92.0) | 8 (66.7) | 651 (92.5) |  |
| Yes | 57 (8.0) | 4 (33.3) | 53 (7.5) | 0.0113 |
| Length of surgery, min, median [25th-75th] | 129.0 [97.0-187.2] | 155.0 [130.5-220.8] | 128.5 [96.0-187.0] | 0.1344 |
| Intraoperative MEA, median [25th-75th] | 15.6 [12.4-24.0] | 18.0 [13.6-31.0] | 15.6 [12.4-24.0] | 0.4684 |
| **Postoperative variables** |  |  |  |  |
| Mean pain score on postoperative day 1  median [25th-75th], n = 697 | 4.6 [3.3-6.0] | 4.5 [3.1-5.7] | 4.7 [3.3-6] | 0.6994 |
| MEA on postoperative day 1  median [25th-75th] | 22.2 [12.0-33.4] | 24.0 [13.1-35.8] | 22.2 [12.0-33.2] | 0.5914 |

SD: Standard deviation, ASA: American Society of Anesthesiologists, 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 T-tests were used.

2 Chi-square tests were used

3 Wilcoxon rank sum tests were used

4 Fisher’s exact tests were used