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| Supplementary digital content 6: Characteristics of individuals undergoing colorectal cancer surgery with anesthesia data in Denmark 2004-2018 | | | | | | |
|  | Before propensity score matching | |  | After propensity score matching | |  |
|  | Epidural analgesia | No epidural analgesia | Standardized mean difference | Epidural analgesia | No epidural analgesia | Standardized mean difference |
| N | 3496 | 8122 |  | 2980 | 2980 |  |
| Median age, years (IQR) | 70 (63-77 | 70 (63-77) | 0.022 | 70 (63-77) | 70 (63-77) | 0.009 |
| Sex |  |  | 0.009 |  |  | 0.030 |
| Male | 1901 (54.4) | 4380 (53.9) |  | 1631 (54.7) | 1587 (53.3) |  |
| Female | 1595 (45.6) | 3742 (46.1) |  | 1349 (45.3) | 1393 (46.7) |  |
| Body Mass Index, kg x m2 |  |  | 0.081 |  |  | 0.021 |
| <18.5 | 138 ( 3.9) | 274 ( 3.4) |  | 108 ( 3.6) | 111 ( 3.7) |  |
| 18.5-25 | 1596 (45.7) | 3487 (42.9) |  | 1343 (45.1) | 1322 (44.4) |  |
| 25-30 | 1157 (33.1) | 2977 (36.7) |  | 1008 (33.8) | 1007 (33.8) |  |
| >30 | 595 (17.0) | 1352 (16.6) |  | 511 (17.1) | 528 (17.7) |  |
| Missing | 10 ( 0.3) | 32 ( 0.4) |  | 10 ( 0.3) | 12 ( 0.4) |  |
| ASA Physical Status |  |  | 0.031 |  |  | 0.032 |
| I | 638 (18.2) | 1522 (18.7) |  | 552 (18.5) | 528 (17.7) |  |
| II | 2074 (59.3) | 4789 (59.0) |  | 1767 (59.3) | 1775 (59.6) |  |
| III | 726 (20.8) | 1653 (20.4) |  | 610 (20.5) | 616 (20.7) |  |
| IV+ | 51 ( 1.5) | 132 ( 1.6) |  | 45 ( 1.5) | 53 ( 1.8) |  |
| Missing | 7 ( 0.2) | 26 ( 0.3) |  | 6 ( 0.2) | 8 ( 0.3) |  |
| Charlson Comorbidity Index |  |  | 0.023 |  |  | 0.012 |
| 0 | 2344 (67.0) | 5379 (66.2) |  | 1988 (66.7) | 1975 (66.3) |  |
| 1 | 684 (19.6) | 1613 (19.9) |  | 580 (19.5) | 593 (19.9) |  |
| 2 | 257 ( 7.4) | 600 ( 7.4) |  | 228 ( 7.7) | 231 ( 7.8) |  |
| >2 | 211 ( 6.0) | 530 ( 6.5) |  | 184 ( 6.2) | 181 ( 6.1) |  |
| Tobacco |  |  | 0.028 |  |  | 0.041 |
| Smoker | 721 (20.6) | 1587 (19.5) |  | 596 (20.0) | 619 (20.8) |  |
| Non-smoker | 2673 (76.5) | 6283 (77.4) |  | 2306 (77.4) | 2266 (76.0) |  |
| Missing | 102 ( 2.9) | 252 ( 3.1) |  | 78 ( 2.6) | 95 ( 3.2) |  |
| Alcohol, weekly units |  |  | 0.091 |  |  | 0.020 |
| 0 | 942 (26.9) | 2191 (27.0) |  | 787 (26.4) | 795 (26.7) |  |
| 1-21 | 2222 (63.6) | 5190 (63.9) |  | 1912 (64.2) | 1899 (63.7) |  |
| >21 | 223 ( 6.4) | 594 ( 7.3) |  | 202 ( 6.8) | 198 ( 6.6) |  |
| Missing | 109 ( 3.1) | 147 ( 1.8) |  | 79 ( 2.7) | 88 ( 3.0) |  |
| Filled prescriptions 3 months prior to surgery (ATC-code) |  |  |  |  |  |  |
| Proton pump inhibitors (A02BC) | 654 (18.7) | 1417 (17.4) | 0.033 | 551 (18.5) | 545 (18.3) | 0.005 |
| Antidiabetics (A10) | 347 ( 9.9) | 781 ( 9.6) | 0.010 | 300 (10.1) | 300 (10.1) | <0.001 |
| Acetyl Salicylic acid (B01AC06) | 540 (15.4) | 1211 (14.9) | 0.015 | 451 (15.1) | 444 (14.9) | 0.007 |
| Other platelet inhibitors (B01AC | 165 ( 4.7) | 450 ( 5.5) | 0.037 | 145 ( 4.9) | 133 ( 4.5) | 0.019 |
| Anticoagulants (B01A) | 159 ( 4.5) | 505 ( 6.2) | 0.074 | 141 ( 4.7) | 154 ( 5.2) | 0.020 |
| Digoxin (C01AA05) | 85 ( 2.4) | 242 ( 3.0) | 0.034 | 72 ( 2.4) | 77 ( 2.6) | 0.011 |
| Thiazides (C03) | 625 (17.9) | 1461 (18.0) | 0.003 | 529 (17.8) | 547 (18.4) | 0.016 |
| Beta blockers (C07) | 511 (14.6) | 1223 (15.1) | 0.012 | 433 (14.5) | 434 (14.6) | 0.001 |
| Calcium channel blockers (C08) | 516 (14.8) | 1231 (15.2) | 0.011 | 444 (14.9) | 464 (15.6) | 0.019 |
| Drugs acting on renin angiotensin system (C09) | 889 (25.4) | 2131 (26.2) | 0.018 | 781 (26.2) | 783 (26.3) | 0.002 |
| Lipid lowering drugs (C10) | 782 (22.4) | 1748 (21.5) | 0.020 | 677 (22.7) | 646 (21.7) | 0.025 |
| Estrogen hormone replacement (G03C) | 154 ( 4.4) | 329 ( 4.1) | 0.018 | 135 ( 4.5) | 136 ( 4.6) | 0.002 |
| Corticosteroids for systemic use (H02) | 102 ( 2.9) | 217 ( 2.7) | 0.015 | 81 ( 2.7) | 92 ( 3.1) | 0.022 |
| Non-steroid anti-inflammatory drugs (M01A) | 244 ( 7.0) | 586 ( 7.2) | 0.009 | 211 ( 7.1) | 206 ( 6.9) | 0.007 |
| Urate lowering drugs (M04) | 51 ( 1.5) | 174 ( 2.1) | 0.051 | 49 ( 1.6) | 51 ( 1.7) | 0.005 |
| Bisphosphonates (M05BA,M05BB) | 112 ( 3.2) | 235 ( 2.9) | 0.018 | 97 ( 3.3) | 101 ( 3.4) | 0.007 |
| Opioids (N02A) | 413 (11.8) | 860 (10.6) | 0.039 | 342 (11.5) | 352 (11.8) | 0.010 |
| Benzodiazepines (N05CD,N05CF) | 319 ( 9.1) | 787 ( 9.7) | 0.019 | 276 ( 9.3) | 266 ( 8.9) | 0.012 |
| Antidepressants (N06A) | 250 ( 7.2) | 603 ( 7.4) | 0.011 | 209 ( 7.0) | 207 ( 6.9) | 0.003 |
| Drugs for obstructive airway diseases (R03) | 312 ( 8.9) | 663 ( 8.2) | 0.027 | 259 ( 8.7) | 248 ( 8.3) | 0.013 |
| Number of different prescriptions |  |  | 0.015 |  |  | 0.024 |
| 0-4 | 2330 (66.6) | 5451 (67.1) |  | 1990 (66.8) | 1972 (66.2) |  |
| 5-9 | 970 (27.7) | 2202 (27.1) |  | 817 (27.4) | 845 (28.4) |  |
| ≥10 | 196 ( 5.6) | 469 ( 5.8) |  | 173 ( 5.8) | 163 ( 5.5) |  |
| Tumor localization |  |  | 0.200 |  |  | 0.004 |
| Right hemicolon | 1166 (33.4) | 2721 (33.5) |  | 974 (32.7) | 968 (32.5) |  |
| Left hemicolon | 1011 (28.9) | 2992 (36.8) |  | 932 (31.3) | 934 (31.3) |  |
| Rectum | 1319 (37.7) | 2405 (29.6) |  | 1074 (36.0) | 1078 (36.2) |  |
| Unspecified | <5 ( 0.0) | <5 ( 0.0) |  | <5 (0.0) | <5 (0.0) |  |
| Preoperative metastases |  |  | 0.027 |  |  | 0.024 |
| Yes | 124 ( 3.5) | 261 ( 3.2) |  | 112 (3.8) | 116 (3.9) |  |
| No | 3333 (95.3) | 7786 (95.9) |  | 2833 (95.1) | 2836 (95.2) |  |
| Missing | 39 ( 1.1) | 75 ( 0.9) |  | 35 (1.2) | 28 (0.9) |  |
| Cancer stage\* |  |  | 0.105 |  |  | 0.044 |
| I | 694 (19.9) | 1798 (22.1) |  | 604 (20.3) | 635 (21.3) |  |
| II | 1506 (43.1) | 3173 (39.1) |  | 1271 (42.7) | 1216 (40.8) |  |
| III | 1080 (30.9) | 2550 (31.4) |  | 904 (30.3) | 910 (30.5) |  |
| IV | 141 ( 4.0) | 337 ( 4.1) |  | 127 ( 4.3) | 142 ( 4.8) |  |
| Missing | 75 ( 2.1) | 264 ( 3.3) |  | 74 ( 2.5) | 77 ( 2.6) |  |
| Neoadjuvant oncologic treatment |  |  | 0.074 |  |  | 0.011 |
| No | 3079 (88.1) | 7339 (90.4) |  | 2653 (89.0) | 2643 (88.7) |  |
| Yes | 417 (11.9) | 783 ( 9.6) |  | 327 (11.0) | 337 (11.3) |  |
| Urgency |  |  | 0.040 |  |  | 0.022 |
| Elective | 3225 (92.2) | 7543 (92.9) |  | 2726 (91.5) | 2707 (90.8) |  |
| Acute | 271 ( 7.8) | 575 ( 7.1) |  | 254 ( 8.5) | 273 ( 9.2) |  |
| Missing | <5 ( 0.0) | <5 ( 0.0) |  | <5 ( 0.0) | <5 ( 0.0) |  |
| Intended surgical approach |  |  | 0.307 |  |  | 0.032 |
| Laparotomy | 1672 (47.8) | 2674 (32.9) |  | 1159 (38.9) | 1205 (40.4) |  |
| Laparoscopy | 1824 (52.2) | 5448 (67.1) |  | 1821 (61.1) | 1775 (59.6) |  |
| General anesthesia type |  |  | 0.188 |  |  | 0.024 |
| Inhalation | 1370 (39.2) | 3869 (47.6) |  | 1200 (40.3) | 1231 (41.3) |  |
| Total intravenous anesthesia | 2117 (60.6) | 4195 (51.6) |  | 1771 (59.4) | 1742 (58.5) |  |
| Missing | 9 ( 0.3) | 58 ( 0.7) |  | 9 ( 0.3) | 7 ( 0.2) |  |
| Year |  |  | 0.600 |  |  |  |
| 2004-2008 | 392 (11.2) | 2110 (26.0) |  | 392 (13.2) | 434 (14.6) | 0.049 |
| 2009-2012 | 1868 (53.4) | 2170 (26.7) |  | 1364 (45.8) | 1378 (46.2) |  |
| 2013-2018 | 1236 (35.4) | 3842 (47.3) |  | 1224 (41.1) | 1. .2) |  |
| \* Union for International Cancer Control classification. ASA = American Society of Anesthesiologists physical performance score, ATC = Anatomical Therapeutic Chemical (ATC) Classification System. | | | | | | |