**Supplement Table 2. Study group characteristics and outcomes of patients with previously diagnosed OSA (D-OSA), classified based on their self-reported compliance to OSA therapy.**

| **Variables** |  **Not Compliant with OSA therapy(n=948)** | **Compliant with OSA therapy (n=1,947)** | **P value** |
| --- | --- | --- | --- |
| **Demographics** |  |  |  |
| Gender Male | 532 (56.1) | 1,148 (59.0) | 0.15 |
| Age (years) | 61.0 (13.7) | 61.4 (12.2) | 0.36 |
| BMI (kg/m2) | 33.5 (8.4) | 35.2 (8.2) | <0.001 |
| **Hospital type** |  |  |  |
| Academic center | 553 (58.3) | 1,099 (56.4) | 0.34 |
| Community centers  | 395 (41.7) | 848 (43.6) |  |
| **Surgical procedure** |  |  |  |
| Surgery duration (min) | 190.9 (129.9) | 191.0 (126.2) | 0.75 |
| Surgical service  |  |  | 0.29 |
| Cardiothoracic | 96 (10.5) | 207 (11.2) |  |
| ENT, Maxillo-Facial/Oral | 11 (1.2) | 19 (1.0) |  |
|  General | 247 (27.0) | 439 (23.8) |  |
| Minimally invasive (Gastroenterology, Cardiology, Interventional Radiology) | 52 (5.7) | 111 (6.0) |  |
| Neurosurgery | 92 (10.1) | 184 (10.0) |  |
| Obstetrics and Gynecology | 28 (3.1) | 45 (2.4) |  |
|  Orthopedics | 281 (30.7) | 645 (34.9) |  |
|  Urology | 46 (5.0) | 103 (5.6) |  |
|  Vascular | 22 (2.4) | 37 (2.0) |  |
|  Other | 39 (4.3) | 56 (3.0) |  |
| **Comorbidities** |  |  |  |
| Smoker | 97 (10.2) | 132 (6.8) | 0.001 |
| COPD | 166 (17.5) | 269 (13.8) | 0.01 |
| Asthma | 180 (19.0) | 385 (19.8) | 0.62 |
| Other respiratory disease | 277 (29.2) | 522 (26.8) | 0.17 |
| Cardiac disease | 365 (38.5) | 720 (37.0) | 0.43 |
| Neurological disease | 303 (32.0) | 516 (26.5) | 0.002 |
| Renal disease | 217 (22.9) | 409 (21.0) | 0.25 |
| Liver disease | 72 (7.6) | 125 (6.4) | 0.24 |
| Obesity (BMI>35 kg/m2) | 348 (36.7) | 875 (44.9) | <0.001 |
| Diabetes | 346 (36.5) | 699 (35.9) | 0.75 |
| Other endocrine disease | 449 (47.4) | 1,003 (51.5) | 0.04 |
| ASA physical status  |  |  | 0.91 |
|  1 | 1 (0.1) | 2 (0.1) |  |
|  2 | 159 (16.8) | 344 (17.8) |  |
|  3 | 652 (69.1) | 1,328 (68.7) |  |
|  4 | 132 (14.0) | 258 (13.4) |  |
| **≥1 Adverse Respiratory Events (AREs)**  | 686 (72.4) | 1,375 (70.7) | 0.33 |
| **Individual AREs** |  |  |  |
| Hypoxemic event (≥1) |  |  |  |
|  Intraoperative |  |  |  |
|  Lowest SpO2=86-89% | 188 (20.0) | 421 (21.7) | 0.27 |
|  Lowest SpO2≤85% | 137 (14.5) | 258 (13.3) | 0.37 |
|  PACU  |  |  |  |
|  Lowest SpO2=86-89% | 92 (9.7) | 174 (9.0) | 0.49 |
|  Lowest SpO2≤85% | 49 (5.2) | 82 (4.2) | 0.24 |
|  Postoperative |  |  |  |
|  Lowest SpO2=86-89% | 134 (14.6) | 293 (15.4) | 0.57 |
|  Lowest SpO2≤85% | 384 (41.9) | 728 (38.4) | 0.07 |
| Difficult airway management |  |  |  |
|  Difficult mask ventilation | 29 (3.1) | 43 (2.2) | 0.17 |
|  Difficult intubation | 46 (4.9) | 109 (5.6) | 0.40 |
| **Secondary Outcomes**  |  |  |  |
| Need of postoperative O2 therapy | 928 (97.9) | 1,917 (98.5) | 0.27 |
| Duration of postoperative O2 therapy (days) for those that received it † | 2.3 (1.0,4.8) | 2.5 (1.4,4.4) | 0.70 |
| Postoperative NIV | 247 (26.1) | 1,351 (69.4) | <0.001 |
| Postoperative re-intubation | 65 (6.9) | 101 (5.2) | 0.07 |
| Postoperative ventilation in ICU § | 87 (9.2) | 148 (7.6) | 0.15 |
| Duration of postoperative mechanical ventilation in ICU (hours) for those that received it † | 16.1 (5.0,43.1) | 12.0 (3.7,38.4) | 0.28 |
| ICU Direct Admission  | 95 (10.0) | 179 (9.2) | 0.48 |
| ICU Unplanned Admission | 139 (14.7) | 256 (13.1) | 0.27 |
| Hospital Length of Stay (days) † | 3.0 (2.0,6.0) | 3.0 (2.0,5.0) | 0.10 |
| Death within 30 days after surgery | 8 (0.8) | 13 (0.7) | 0.60 |
| Death within 1 year after surgery | 30 (3.2) | 36 (1.8) | 0.03 |

(Data represent Mean (SD) or n (% of column) of selected variables as appropriate unless otherwise stated) († log-transformed for regression analysis; § The difference between the number of patients ventilated receiving postoperative ventilation and postoperative re-intubation reflects patients that were transferred ventilated from the operating room to the ICU) (ASA=American Society of Anesthesiologists; BMI=Body Mass Index; COPD=Chronic Obstructive Pulmonary Disease; ENT= Ear Nose and Throat surgery; ICU=Intensive Care Unit; NIV=Non-Invasive Ventilation; O2=Oxygen; PACU= Post-Anesthesia Care Unit; SpO2=Peripheral saturation of oxygen)