**Table 5. Multiple imputation analyses**

|  |  |  |
| --- | --- | --- |
| **Variables** | **Multiple imputation of missing data** | |
| **OR (95% CI)** | ***p*-value** |
| **Preoperative** |  |  |
| Age (years)  <65  65-74  75-84  >85 | ref  1.16 (0.97, 1.38)  1.48 (1.25, 1.76)  2.40 (1.98, 2.90) | 0.101  <0.001  <0.001 |
| Male sex | 1.10 (0.98, 1.23) | 0.108 |
| Body mass index, kg/m2  Normal (18.50-24.99)  Underweight (<18.50)  Overweight (> 25.00)  Obese I (30.00 – 35.00)  Obese II (35.00 – 40.00)  Obese III (> 40) | ref  1.39 (1.06, 1.81)  0.83 (0.72, 0.95)  0.88 (0.74, 1.06)  0.97 (0.75, 1.24)  1.09 (0.83, 1.45) | 0.016  0.009  0.180  0.780  0.526 |
| ASA Classification  1 or 2  3  4  5 | ref  1.49 (1.17, 1.90)  1.83 (1.42, 2.36)  3.11 (2.05, 4.70) | 0.001  <0.001  <0.001 |
| Ascites | 1.78 (1.15, 2.77) | 0.010 |
| Disseminated cancer | 1.49 (1.16, 1.92) | 0.002 |
| Congestive heart failure | 1.25 (1.01, 1.55) | 0.041 |
| Diabetes mellitus  None  Non-insulin  Insulin | ref  0.86 (0.73, 1.02)  0.87 (0.74, 1.02) | 0.077  0.081 |
| Renal failure | 1.38 (1.19, 1.59) | <0.001 |
| Dialysis | 1.12 (0.88, 1.42) | 0.371 |
| History of severe COPD | 1.32 (1.13, 1.54) | 0.001 |
| Systemic Sepsis  None  SIRS  Sepsis  Septic Shock | ref  1.45 (1.20, 1.76)  1.66 (1.34, 2.06)  1.95 (1.51, 2.53) | <0.001  <0.001  <0.001 |
| Hypertension requiring medication | 0.84 (0.73, 0.97) | 0.020 |
| Steroid use for chronic condition | 0.89 (0.72, 1.12) | 0.325 |
| Dyspnea  None  Moderate exertion  At rest | ref  1.09 (0.93, 1.29)  1.70 (1.17, 2.47) | 0.289  0.005 |
| Anemia | 1.00 (0.87, 1.15) | 0.990 |
| Transfusion | 1.10 (0.87, 1.39) | 0.427 |
| Surgical urgency  Elective  Emergent | ref  1.49 (1.30, 1.71) | <0.001 |
| Procedural risk  Intermediate-risk  High-risk | ref  1.42 (1.13, 1.78) | 0.003 |
| **Intraoperative** |  |  |
| Operation time (per 10 mins) | 1.00 (1.00, 1.00) | 0.350 |
| **Postoperative** |  |  |
| Any complication\* | 1.38 (1.22, 1.58) | <0.001 |

Ref: reference group; OR: odds ratio; CI: confidence interval; ASA: American Society of Anesthesiologists; COPD: chronic obstructive pulmonary disease; SIRS: systemic inflammatory response syndrome

\*Includes: acute renal failure, bleeding transfusion, deep venous thrombosis /thrombophlebitis, sepsis, septic shock, pneumonia, ventilation, pulmonary embolism, cerebrovascular accident /stroke with neurological deficit, wound disruption, deep incisional surgical site infection, organ space surgical site infection, unplanned reoperation 1, and unplanned reoperation 2.