| **Characteristic** | **OR***1* | **95% CI***1* | **p-value** |
| --- | --- | --- | --- |
| BMI only | | | |
| s(BMI) |  |  | <0.001 |
| OSA only | | | |
| Obstructive sleep apnea |  |  |  |
| No | — | — |  |
| Yes | 0.53 | 0.43, 0.66 | <0.001 |
| Atelectasis percent only | | | |
| s(atelectasis\_percent) |  |  | <0.001 |
| BMI + OSA | | | |
| Obstructive sleep apnea |  |  |  |
| No | — | — |  |
| Yes | 0.63 | 0.53, 0.75 | <0.001 |
| s(BMI) |  |  | <0.001 |
| BMI + Atelectasis percent | | | |
| s(BMI) |  |  | 0.4 |
| s(atelectasis\_percent) |  |  | <0.001 |
| BMI + OSA + Atelectasis percent | | | |
| Obstructive sleep apnea |  |  |  |
| No | — | — |  |
| Yes | 0.93 | 0.81, 1.06 | 0.3 |
| s(BMI) |  |  | 0.2 |
| s(atelectasis\_percent) |  |  | <0.001 |
| BMI + OSA + age + sex + hb + altitude | | | |
| Sex |  |  |  |
| Man | — | — |  |
| Woman | 0.91 | 0.75, 1.12 | 0.4 |
| Age | 1.00 | 0.99, 1.00 | 0.7 |
| Obstructive sleep apnea |  |  |  |
| No | — | — |  |
| Yes | 0.62 | 0.52, 0.75 | <0.001 |
| Hemoglobin | 0.98 | 0.93, 1.03 | 0.4 |
| altitude\_cat |  |  |  |
| Low altitude | — | — |  |
| Moderate altitude | 0.94 | 0.80, 1.12 | 0.5 |
| s(BMI) |  |  | <0.001 |
| Atelectasis percent + OSA + age + sex + hb + altitude | | | |
| Sex |  |  |  |
| Man | — | — |  |
| Woman | 0.98 | 0.84, 1.14 | 0.8 |
| Age | 1.00 | 1.00, 1.00 | >0.9 |
| Obstructive sleep apnea |  |  |  |
| No | — | — |  |
| Yes | 0.93 | 0.80, 1.08 | 0.3 |
| Hemoglobin | 1.01 | 0.97, 1.05 | 0.6 |
| altitude\_cat |  |  |  |
| Low altitude | — | — |  |
| Moderate altitude | 0.95 | 0.84, 1.08 | 0.4 |
| s(atelectasis\_percent) |  |  | <0.001 |
| Fully adjusted model | | | |
| Sex |  |  |  |
| Man | — | — |  |
| Woman | 0.97 | 0.83, 1.13 | 0.7 |
| Age | 1.00 | 1.0, 1.00 | 0.8 |
| Obstructive sleep apnea |  |  |  |
| No | — | — |  |
| Yes | 0.92 | 0.79, 1.07 | 0.3 |
| Hemoglobin | 1.01 | 0.97, 1.04 | 0.7 |
| altitude\_cat |  |  |  |
| Low altitude | — | — |  |
| Moderate altitude | 0.95 | 0.84, 1.08 | 0.4 |
| s(BMI) |  |  | 0.3 |
| s(atelectasis\_percent) |  |  | <0.001 |
| *1*OR = Odds Ratio, CI = Confidence Interval | | | |