**Table S7. The adjusted effect of all variables included in the statistical model on the incident cancer additionally controlling for year of the sleep study and study site. The estimates presented as hazard ratios and 95% confidence interval.**

|  |  |  |
| --- | --- | --- |
| **Characteristics** | **Hazard Ratio** | **95% Hazard Ratio Confidence Interval** |
| **Demographics** |
| Age, per 5 years increase | **1.29** | **1.26-1.32** |
| Sex: Men vs Women  | **1.11** | **1.00-1.24** |
| Neighbourhood income quintile (Q) |  |  |
| Q2 vs Q1 | 0.97 | 0.83-1.14 |
| Q3 vs Q1 | 0.94 | 0.80-1.11 |
| Q4 vs Q1 | 0.91 | 0.77-1.07 |
| Q5 vs Q1 | 1.01 | 0.88-1.17 |
| Living in rural area: No vs Yes | 1.09 | 0.90-1.32 |
| Being an immigrant: Yes vs No | **0.76** | **0.62-0.93** |
| **Physical examination** |
| Body mass index: per 5 increase | **1.05** | **1.01-1.09** |
| **Polysomnographic indices** |
| Total sleep time: per hour increase | 0.98  | 0.95-1.01 |
| OSA severity by AHI categories |  |  |
| mild vs no OSA (AHI<5) | 1.11 | 0.96-1.28 |
| moderate vs no OSA (AHI<5) | 1.14 | 0.98-1.34 |
| severe vs no OSA (AHI<5) | **1.19** | **1.01-1.39** |
| **Presence of Prior Comorbidities (as defined from health administrative data)** |
| Alcohol use disorder | 1.19 | 0.97-1.44 |
| Chronic heart failure | 1.14 | 0.98-1.31 |
| Chronic obstructive pulmonary disease | **1.33** | **1.19-1.49** |
| Diabetes | 0.98 | 0.88-1.09 |
| Hypertension | **1.16** | **1.02-1.30** |
| Obesity | 1.07 | 0.77-1.49 |
| Depression | 0.95 | 0.86-1.04 |
| Charlson Comorbidity Index, per unit increase | 1.03 | 0.97-1.09 |
| **OSA-Related Treatment in Follow-up** |
| PAP, or bariatric, MMA or UPPP surgeries | 0.92 | 0.82-1.04 |

Statistically significant values in bold

AHI, apnea-hypopnea index; OSA, obstructive sleep apnea; Q, quartile (1 to 4)

**Table S8. The results of the sensitivity analyses adjusting for the possibility that lag time would exist between the diagnosis of OSA and diagnosis of cancer and for variables reflecting the quality of care and prior health care exposure. The estimates presented as hazard ratios and 95% confidence interval.**

|  |  |  |
| --- | --- | --- |
| **Measure of sleep apnea severity** | **Hazard Ratio** | **95% Hazard Ratio Confidence Interval** |
| **Model 4 adjusting additionally for the possibility that one-year lag time would exist between the diagnosis of OSA and diagnosis of cancer** |
| Mild OSA vs no OSA | 1.04 | 0.92 | 1.17 |
| Moderate OSA vs no OSA | 1.02 | 0.89 | 1.16 |
| Severe OSA vs no OSA | 1.13 | 1.00 | 1.29 |
| >30% of sleep time spent with SaO2<90: Yes vs. No | 1.30 | 1.05 | 1.61 |
| **Model 4 adjusted additionally for variables reflecting the quality of care and prior health care exposure** |
| Mild OSA vs no OSA | 1.04 | 0.93 | 1.17 |
| Moderate OSA vs no OSA | 1.04 | 0.92 | 1.18 |
| Severe OSA vs no OSA | 1.15 | 1.01 | 1.29 |
| >30% of sleep time spent with SaO2<90: Yes vs. No | 1.33 | 1.09 | 1.62 |

OSA, obstructive sleep apnea; SaO2, oxygen saturation

Model 4: Exposure + year of study + sleep clinic site + age +sex + alcohol use disorder + prior chronic heart failure + chronic obstructive pulmonary disease + hypertension + diabetes + OSA treatment as time varying covariate