

SUPPLEMENTARY DATA

Supplementary Table 1. Seven sites collaborating in the *Institut de Recherche en Santé Respiratoire des Pays de la Loire [IRSR] sleep cohort*

- Site 1: Department of Respiratory Diseases, Angers University hospital, France
- Site 2: Department of Respiratory Diseases, Nantes University hospital, France
- Site 3: Department of Respiratory Diseases, Cholet hospital, France
- Site 4: Department of Respiratory Diseases, Nouvelles Cliniques Nantaises, France
- Site 5: Department of Respiratory Diseases, Pôle santé des Olonnes, Olonnes sur Mer, France
- Site 6: Department of Respiratory Diseases, La Roche sur Yon hospital, France
- Site 7: Department of Respiratory Diseases, Le Mans hospital, France

Supplementary Table 2. Multiple linear regression models for glycated hemoglobin

	Model 1		Model 2		Model 3		Model 4	
	β coef.	P value	β coef.	P value	β coef.	P value	β coef.	P value
Age (year)	0.0051	<0.0001	0.0050	<0.0001	0.0057	<0.0001	0.0052	<0.0001
Gender (ref.=F)	0.0012	0.96	0.0019	0.93	0.0010	0.97	0.0112	0.61
Smoking habits (ref.=non-smoker)	0.0529	0.03	0.0565	0.02	0.0616	0.03	0.0495	0.05
BMI (kg/m ²)	0.0123	0.0002	0.0128	0.0001	0.0143	0.0003	0.0123	0.0004
WC (cm)	-0.0001	0.91	-0.0004	0.76	-0.0014	0.35	-0.0001	0.97
ESS	0.0015	0.41	-0.0013	0.49	-0.0016	0.43	-0.0019	0.33
Depression † (ref.=none)	0.0135	0.52	-0.0156	0.46	-0.0144	0.85	-0.0167	0.43
CV morbidity‡ (ref=none)	0.0270	0.19	0.0266	0.20	0.0115	0.61	0.0256	0.23
Insomnia (ref=yes)	-0.0118	0.53	-0.0154	0.41	-0.0075	0.71	-0.0167	0.38
TST# (ref=<300 minutes)	-0.0214	0.23	-0.0268	0.14	-0.0167	0.14	-0.0182	0.32
AHI	0.0013	0.003	-	-	-	-	-	-
Mean SaO ₂	-	-	-0.0116	0.02	-	-	-	-
3% ODI	-	-	-	-	0.0014	0.008	-	-
Time with SaO ₂ <90% (%)	-	-	-	-	-	-	0.0017	0.007

The influence of obstructive sleep apnea severity was analyzed according to apnea-hypopnea index (AHI) (model 1), mean nocturnal oxygen saturation (SaO₂) (model 2), 3% oxygen desaturation index (ODI) (model 3), and time with SaO₂<90% (model 4)

Coef., coefficient; ref., reference; F, female; BMI, body mass index; WC, waist circumference; ESS, Epworth Sleepiness Scale(1); CV, cardiovascular; TST, total sleep time (Since TST was available for only 563 patients, this variable was entered in the model according to discrete modalities (<300 minutes, ≥ 300 minutes, or unavailable).

† Depression was defined by ≥ 7 positive items on the 13-item version of the Pichot depression scale(2) or self-reported use of antidepressant medication

‡ Patients were classified as having CV morbidity if they reported at least one of the following: known and treated hypertension, ischemic heart disease, cardiac arrhythmia, congestive heart failure and stroke

SUPPLEMENTARY DATA

References

1. Johns MW. A new method for measuring daytime sleepiness: the Epworth sleepiness scale. *Sleep* 1991; 14:540-545.
2. de Bonis M, Lebeaux MO, de Boeck P, Simon M, Pichot P. Measuring the severity of depression through a self-report inventory. A comparison of logistic, factorial and implicit models. *J Affect Disord* 1991; 22:55-64.