

SUPPLEMENTARY FILES

CLUSTER ANALYSIS OF HOME MECHANICAL VENTILATION IN COPD PATIENTS: A PICTURE OF THE REAL WORLD AND ITS IMPACT ON MORTALITY

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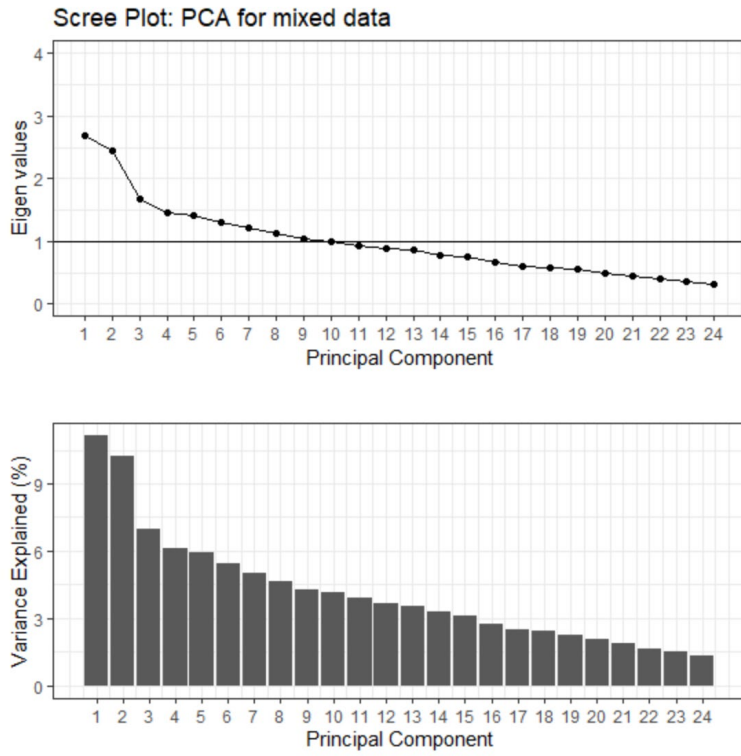
e-Table 1. Description of selected variables to perform the cluster analysis (once missing values were imputed).

	Global N=247	% missing
Sociodemographic characteristics		
Age (years)	70.4 (9.38)	0%
Sex		0%
Female	54 (21.9%)	
Male	193 (78.1%)	
Smoking habit		4.5%
Nonsmokers/Former smokers	183 (74.1%)	
Smokers	64 (25.9%)	
Socioeconomic index ^a	40.4 (15.6)	0%
Ventilation parameters		
Type of mask:		2.8%
Nasal	35 (14.2%)	
Nasal-mouth	212 (85.8%)	
IPAP pressure (cm H ₂ O)	19.3 (2.95)	0.8%
Long-term oxygen therapy: Yes	184 (74.5%)	1.2%
Home mechanical ventilation (years)	3.73 (3.28)	0%
Health		
GOLD classification (2017):		7.7%
A	21 (8.50%)	
B	45 (18.2%)	
C	35 (14.2%)	
D	146 (59.1%)	
Prescription drugs ^b (2014-2017)		2.8%
Alimentary tract and metabolism	59.5 (60.0)	
Nervous system	75.7 (94.2)	
Cardiovascular system	107 (99.2)	
Respiratory system	124 (87.2)	
Primary care visits ^b	76.3 (57.4)	0%
Emergency visits ^b	10.5 (9.94)	2.8%
Hospital admissions		
Number of hospital admissions (2016 and 2017)	1.87 (2.21)	1.2%
Admitted to the ICU: Yes	42 (17.0%)	2.8%
Comorbidities		
Obesity	148 (59.9%)	0%
Heart failure	71 (28.7%)	0%
Neuromuscular disease	7 (2.83%)	0%
Sleep apnea	136 (55.1%)	0%
Rib cage alteration	43 (17.4%)	0%

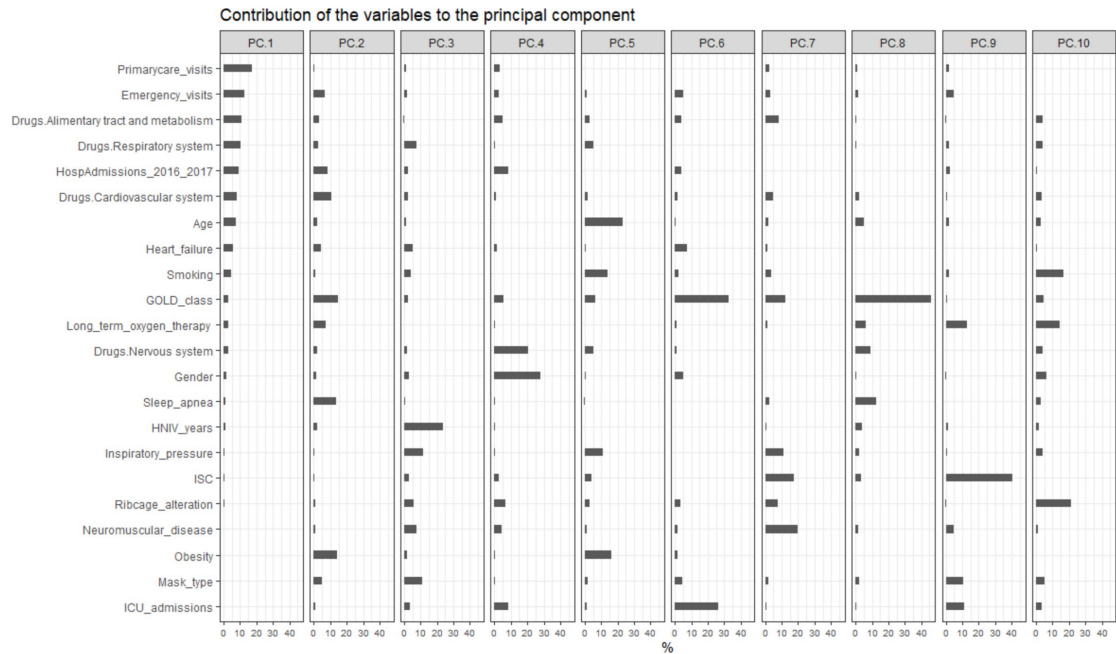
The results are presented as the number of participants (%) and mean (SD). Numbers do not add due to missing values. IPAP: inspiratory positive airway pressure, GOLD: Global initiative for chronic Obstructive Lung Disease. ICU: intensive care unit

^a *Socioeconomic index for ABS (basic health area in Catalonia) in 2017 (0 to 100 values, higher values indicate lower socioeconomic levels)* ^b *Accumulated data within the 2014-2017 period.*

e-Figure 1. Scree plot for the variance of the principal components from the PCA for mixed data analysis (10 dimensions were selected with 64% of explained variance).

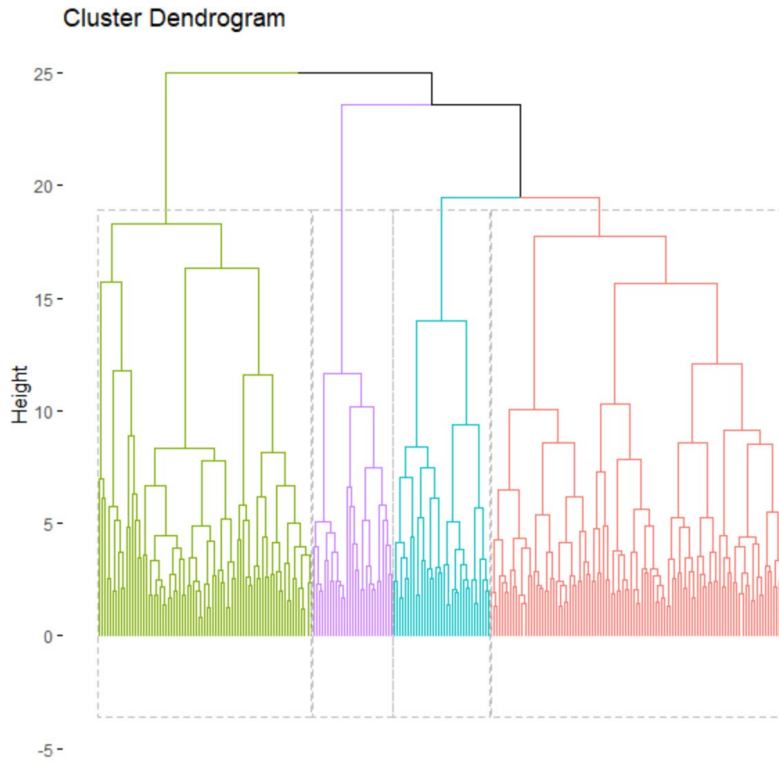


e-Figure 2. Contributions of quantitative/qualitative variables (in percentage) to each dimension.

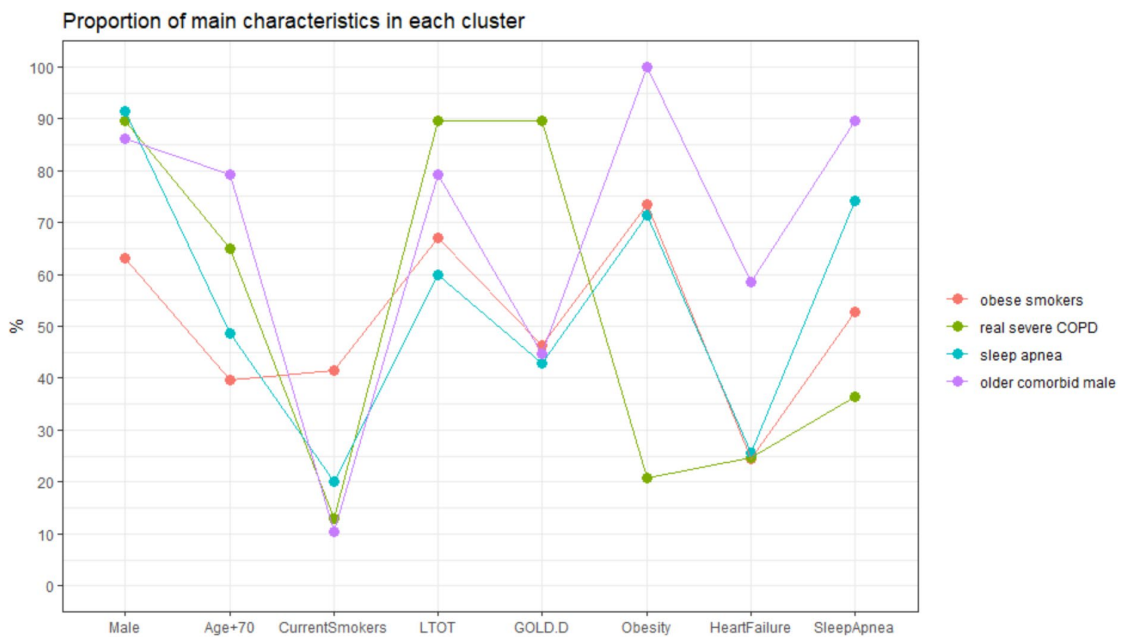


GOLD: Global initiative for chronic Obstructive Lung Disease. HNIV: home noninvasive ventilation. ICU: intensive care unit

e-Figure 3. Dendrogram from hierarchical clustering on principal components, created from the principal component analysis of mixed data (10 dimensions selected) and showing the clustering of patients.



e-Figure 4 – Plot showing selected characteristics of each cluster



LTOT=long-term oxygen therapy.