

Supplementary material

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Table S1. Structured data collection questionnaire: smoking anamnesis and initial clinical examination

Information to be collected	
Affiliations and sociodemographic data	Sex, age, civil status, number of children, education level (primary, middle, higher), employment status.
History of diseases and medications	
Clinical morbidities	Cardiovascular risk factors (diabetes, hypertension, dyslipidaemia); cancer; heart and cardiovascular disease, digestive system alterations (oral lesions, peptic ulcer, liver disease); nephropathy and urinary system pathology; cerebrovascular disease and history of neurologic alterations; allergies; skin disorders
Psychiatric comorbidities	Anxiety; depression; bipolar disorder; panic disorder; schizophrenia; attention-deficit/hyperactivity disorder; anorexia nervosa and bulimia; impulse control disorders (food, shopping, pathological gambling)
Pharmacological treatment	Pharmacological treatment indicated in comorbidities.
History of respiratory symptoms	Cough, expectoration, dyspnoea, chest pain
Smoking habit	
Age onset and smoking intensity	Age at onset of regular consumption; frequency of use (in number cigarettes/day), and total smoking history (pack-years)
Forms of use	Conventional cigarettes; hand-rolled cigarettes; clove cigarettes; chewing tobacco; snuff, hookah; e-cigarettes; heat-not-burn tobacco products; cigars; pipes
Nicotine dependence Level	Spanish Fagerström Test for Nicotine Dependence (Becona-1992)
Motivation to quit smoking	Richmond test (Richmond-1993) and motivational stage of the change process according to Prochaska & DiClemente

	model
Attempts, treatments, abstinence and outcomes	Number of attempts and previous treatments, with or without success; abandonment symptoms; relapse and probable causes
	Previous quit attempts: number and therapeutic resources used
Smoking cessation interventions	Self-help material, health advice, quitline appointments, motivational intervention, group therapy and other approaches (acupuncture, hypnosis, financial compensation, etc.)
Prior use of smoking cessation pharmacotherapy	Nicotine replacement therapy (NRT), bupropion, varenicline and other drugs.
Consumption of alcohol or other psychoactive substances	AUDIT; pattern of alcohol use; and pattern of use of marijuana, cocaine, and other drugs
Physical activity	Regular physical activity; sedentary lifestyle
Basic physical examination	Weight, height, body mass index, blood pressure
Ancillary tests	Basic work-up: electrocardiogram; complete blood count; serum/urine biochemistry; expired carbon monoxide (CO) levels determined by coximetry using the Smoke Check device (Micro Medical Limited, Rochester, Kent, England); the model detects a CO range of 0-20 particles per million (ppm), with a sensitivity of 1 ppm.
	Spirometry and post-bronchodilator test, using pneumotacograph DatoSpir-600 (SIBELMED, SA).
Fiore M, Jaén C, Baker T, et al. Treating Tobacco Use and Dependence: 2008 Update. Rockville, US Department of Health and Human Services 2008. https://www.ncbi.nlm.nih.gov/books/NBK63952/	

Table S2. Abstinence in both groups at 12-month follow-up (bivariate analysis using the Log-Rank test)

	Participants	(%)	HR	(95% CI)	p-value
Total participants	563	(98.6)	1.98	(1.29 – 3.04)	0.001
Primary health-care setting					
<i>Rural</i>	225	(39.4)	2.12	(1.12 – 4.01)	0.018
<i>Urban</i>	338	(59.2)	1.84	(1.03 – 3.27)	0.035
Health professional performing the intervention					
<i>General physician</i>	77	(13.5)	1.93	(0.76 – 4.92)	0.159
<i>Nurse</i>	467	(81.8)	2.07	(1.25 – 3.41)	0.004
Age					
<50 years	324	(56.7)	1.55	(0.89 – 2.72)	0.122
>50 years	239	(41.8)	2.65	(1.36 – 5.16)	0.003
Sex					
<i>Male</i>	257	(45.0)	1.86	(1.02 – 3.38)	0.012
<i>Female</i>	306	(53.6)	2.13	(1.15 – 3.94)	0.051
Civil status					
<i>Married</i>	396	(69.3)	1.79	(1.09 – 2.92)	0.019
<i>Single/Widowed/Divorced</i>	165	(28.9)	2.40	(0.99 – 5.80)	0.051
Children					
<i>No</i>	87	(15.2)	1.72	(0.59 – 0.50)	0.310
<i>Yes</i>	474	(83.0)	2.02	(1.26 – 3.22)	0.003
Education level					
<i>No studies or incomplete</i>	86	(15.1)	2.78	(0.73 – 10.40)	0.116
<i>Complete studies</i>	474	(83.0)	1.86	(1.18 – 0.94)	0.007
Social Class					
<i>Low</i>	199	(34.8)	1.87	(0.90 – 3.88)	0.089
<i>Middle</i>	255	(44.6)	1.47	(0.79 – 2.73)	0.221
<i>High</i>	91	(15.9)	1.87	(0.90 – 3.88)	0.089
Employment status					
<i>Currently working</i>	363	(63.4)	1.82	(1.07 – 3.09)	0.026
<i>Housework</i>	48	(8.4)	3.77	(0.42 – 34.0)	0.205
<i>Unemployed</i>	82	(14.4)	3.14	(0.82 – 12.0)	0.077
<i>Retires</i>	75	(13.1)	1.85	(0.63 – 5.43)	0.252
Alcohol intake categorization					
<i>Non-drinker</i>	263	(46.0)	1.96	(1.07 – 3.59)	0.025
<i>Low-risk drinker</i>	247	(42.3)	2.37	(1.16 – 4.85)	0.014
<i>High-risk drinker</i>	50	(8.7)	1.40	(0.38 – 5.22)	0.613
Dyslipidaemia					
<i>No</i>	439	(76.9)	2.11	(1.32 - 3.38)	0.001
<i>Yes</i>	124	(21.7)	1.66	(0.64 - 5.77)	0.371
Hypertension					
<i>No</i>	446	(78.1)	2.01	(1.20 - 3.37)	0.007
<i>Yes</i>	117	(20.5)	1.65	(0.77 – 3.57)	0.194
Diabetes Mellitus					
<i>No</i>	529	(92.6)	1.96	(1.26 – 3.05)	0.002
<i>Yes</i>	32	(5.9)	3.07	(0.56 – 16.9)	0.173
Anthropometric categorization					

<i>Normal weight</i>	189 (33.1)	5.66 (2.14 – 14.1)	<0.001
<i>Overweight</i>	236 (41.3)	1.19 (0.64 – 2.23)	0.575
<i>Obesity</i>	122 (21.4)	1.53 (0.61 – 3.83)	0.361
Nicotine dependence level *			
<i>Low-middle</i>	512 (89.7)	2.02 (1.31 – 3.14)	0.001
<i>High</i>	47 (8.2)	1.66 (0.15 – 18.3)	0.674
Motivation to quit smoking #			
<i>Low-middle</i>	335 (58.7)	1.85 (0.94 – 3.65)	0.072
<i>High</i>	224 (39.2)	1.91 (1.09 – 3.34)	0.020
Prochaska-DiClemente stage §			
<i>Pre-contemplation</i>	185 (32.4)	2.08 (0.70 – 6.22)	0.179
<i>Contemplation</i>	303 (53.1)	1.99 (1.14 – 3.48)	0.014
<i>Preparation and action</i>	70 (12.2)	1.73 (0.72 – 4.14)	0.214
Accept a specific “quit smoking” medical visit			
<i>No</i>	366 (64.1)	2.5 (1.55 – 4.52)	<0.001
<i>Yes</i>	196 (34.3)	1.22 (0.68 – 2.57)	0.594
Pharmacotherapy to quit smoking †			
<i>No</i>	486 (85.1)	1.79 (1.09 – 2.82)	0.019
<i>Yes</i>	77 (13.5)	2.30 (0.94 – 5.61)	0.061

Data are presented as number of patients (%) and p-value.

(*) Considering low dependence, a score of 0-3, middle of 4-7 and high of 8-10.

(#) Considering low motivation, a score of 0-3, middle of 4-6 and high of 7-10.

(§) According to the definition of the Prochaska and DiClemente model.

(†) Includes any pharmacological treatment specifically indicated to quit smoking: Nicotine replacement therapy (NRT), bupropion and/or varenicline.

Table S3. Characteristics of the participants at baseline, according to no-altered and altered pulmonary function.

	No-altered (N=571)	Altered (N=167)	p
Sociodemographic			
Age (years)	49.8 ± 7.9	54.9 ± 8.0	<0.001
Sex (male)	262 (45.9)	124 (74.3)	<0.001
Civil status			0.306
<i>Married</i>	402 (70.8)	123 (74.5)	
<i>Widowed</i>	18 (3.2)	4 (2.4)	
<i>Single</i>	63 (11.1)	22 (13.3)	
<i>Divorced</i>	85 (15.0)	16 (9.7)	
Children (yes)	479 (84.3)	145 (87.9)	0.260
<i>Number of children</i>	1.78 ± 1.14	2.05 ± 1.13	0.010
Education level			0.179
<i>No studies</i>	14 (2.4)	9 (5.4)	
<i>Incomplete primary school</i>	72 (12.7)	31 (18.8)	
<i>Complete primary school</i>	280 (49.4)	71 (43.0)	
<i>Secondary school</i>	135 (23.8)	41 (24.8)	
<i>Middle grade university</i>	40 (7.1)	9 (5.5)	
<i>Superior grade university</i>	25 (4.4)	4 (2.4)	
Employment status			<0.001
<i>Currently working</i>	367 (64.4)	97 (58.8)	
<i>Unemployed</i>	82 (14.5)	13 (7.9)	
<i>Disability</i>	17 (3.0)	11 (6.7)	
<i>Retires</i>	50 (8.8)	33 (8.1)	
<i>Housework</i>	48 (8.5)	9 (5.5)	
<i>Students,</i>	1 (0.2)	0 (0)	
<i>Other possibilities</i>	3 (0.5)	2 (1.2)	
Comorbidity			
Hypertension	118 (20.7)	62 (37.1)	<0.001
Dyslipidemia	125 (20.7)	54 (32.3)	0.006
Diabetes Mellitus	41 (7.2)	26 (15.6)	<0.001
Cardiovascular disease	6 (1.1)	16 (9.6)	<0.001
Urinary system pathology	5 (0.9)	6 (3.6)	0.038
Neuropsychiatry pathology	38 (6.7)	17 (10.2)	0.217
Musculoskeletal pathology	35 (6.1)	11 (7.2)	0.299
Digestive system alterations	33 (5.8)	12 (6.6)	0.256
Other endocrinopathies	29 (5.1)	5 (3.0)	0.181
Other pathologies not included	18 (3.2)	6 (3.6)	0.286
Clinical evaluation			
Height (cm)	164.1 ± 9.2	166.2 ± 8.4	0.008
Weight (Kg)	72.7 ± 14.9	78.0 ± 16.3	<0.001
BMI (Kg/m ²)	26.9 ± 4.5	28.2 ± 5.4	0.002
Anthropometric categorization			0.035
<i>Underweight</i>	8 (1.4)	0 (0.0)	
<i>Normal weight</i>	191 (33.5)	44 (26.3)	
<i>Overweight grade I</i>	117 (20.5)	25 (14.0)	
<i>Overweight grade II</i>	122 (21.4)	39 (23.4)	
<i>Obesity grade I</i>	96 (16.8)	39 (23.4)	
<i>Obesity grade II</i>	20 (3.5)	6 (3.6)	
<i>Morbid obesity</i>	8 (1.4)	6 (3.6)	

Systolic blood pressure (mmHg)	123.9 ± 15.5	129.7 ± 15.2	<0.001
Diastolic blood pressure (mmHg)	76.4 ± 10.3	78.3 ± 9.9	0.036
Oxygen saturation (%)	97.7 ± 1.4	96.9 ± 1.6	<0.001
Peak-flow (l/min)	424.0 ± 121.5	354.2 ± 111.0	<0.001
Health habits			
Regular physical activity	226 (39.6)	60 (35.9)	0.418
Physical activity (hours/week)	2.5 ± 4.7	1.7 ± 3.2	0.054
Alcohol intake (SD/week)	7.0 ± 13.3	10.2 ± 15.4	0.010
Alcohol intake categorization			0.566
<i>Non-drinker</i>	270 (47.6)	72 (43.6)	
<i>Low-risk drinker</i>	247 (43.6)	75 (45.5)	
<i>High-risk drinker</i> *	50 (8.8)	18 (10.9)	
Smoking habit			
Start age (years)	18.0 ± 5.7	18.5 ± 5.5	0.326
Daily consumption (cig/day)	18.2 ± 10.2	22.7 ± 12.4	<0.001
Cumulative consumption (pack-year) #	29.2 ± 18.7	41.9 ± 25.4	<0.001
Expired-CO value (ppm)	16.8 ± 11.1	16.5 ± 9.9	0.085
FTND score	3.9 ± 2.5	5.0 ± 2.5	<0.001
Nicotine dependence level †			<0.001
<i>Low</i>	247 (43.3)	45 (26.9)	
<i>Middle</i>	271 (47.5)	91 (54.5)	
<i>High</i>	48 (8.4)	28 (16.8)	
RTS score	5.8 ± 2.7	5.6 ± 2.6	0.521
Motivation to quit smoking ‡			0.529
<i>Low</i>	110 (19.3)	35 (21.0)	
<i>Middle</i>	226 (39.6)	71 (42.5)	
<i>High</i>	230 (40.3)	59 (35.3)	
Prochaska-DiClemente stage§			0.848
<i>Pre-contemplation</i>	185 (32.4)	51 (30.5)	
<i>Contemplation</i>	308 (53.9)	96 (57.5)	
<i>Preparation</i>	57 (10.0)	14 (8.4)	
<i>Action</i>	15 (2.6)	4 (2.4)	
Previous quit attempts	2.7 ± 3.8	2.7 ± 3.2	0.869

Data are presented as number of patients (%) or mean ± standard deviation according to the type of variable. BMI: body mass index; SD: Standard Drink; ppm: particles per million; FTND: Fagerström Test for Nicotine Dependence; RTS: Richmond Test Scores.

(*) Considering risk, a consumption ≥28 SD/week for men and ≥ 17 SD/week for women.

(#) Value obtained by multiplying the daily average of cigarettes smoked by the number of years of habit and dividing by 20.

(†) Considering low dependence, a score of 0-3, middle of 4-7 and high of 8-10.

(‡) Considering low motivation, a score of 0-3, middle of 4-6 and high of 7-10.

(§) According to the definition of the Prochaska and DiClemente model.

Table S4. Abstinence rates observed at follow-up visits in participants with altered pulmonary function.

	n = 167 (%)	(95% CI)
Point abstinence #		
<i>At 30 days</i>	15 (9.0)	(5.5 - 14.3)
<i>At 6 months</i>	22 (13.2)	(8.9 - 19.1)
<i>At 12 months</i>	34 (20.4)	(15.0 - 19.1)
Prolonged abstinence		
<i>For 6 months §</i>	19 (11.4)	(7.4 - 17.1)
<i>For 12 months *</i>	12 (7.2)	(4.2 - 12.1)

Data are presented as number of patients (%) and confidence interval (CI).

#This secondary end point was self-reported 7-days point-prevalence tobacco abstinence, confirmed by expired-CO level (<10 ppm).

§ This secondary end point was self-reported prolonged abstinence during the 6 months prior to the end of the follow-up period, confirmed by expired-CO level (<10 ppm) at 30 days and 6 months.

*This primary end point was self-reported prolonged abstinence during the 12 months prior to the end of the follow-up period, confirmed by expired-CO level (<10 ppm) at 30 days, 6 and 12 months.