

Supplementary Table S1. Fibromyalgia Risk Calculator.

Probability of having FM = $100 * (1 / (1 + \text{EXP}(-(E17 + E7 * E30 + E8 * E31 + E9 * E32 + E10 * E33 + E11 * E34 + E12 * E35 + E13 * E36 + E14 * E37 + E15 * E38 + E16 * E39))))$

A	B	C	D	E	F	G	H	I
5								
6	Variables			Beta	EE	95%CI I	95%CI S	
7	1-. Self-reported age at onset of symptoms → Years			-0.07	0.01	-0.09	-0.04	
8	2-. First-line family history of Neurological Diseases → (0) No / (1) Yes			1.43	0.53	0.40	2.47	
9	3-. Exposure to stress levels → (0) No / (1) Yes			1.45	0.46	0.54	2.36	
10	4-. History of post-traumatic acute emotional stress → (0) No / (1) Yes			1.06	0.37	0.3	1.77	
11	5-. Comorbidity during the year of the ICD-10 group diseases of the nervous system → (0) Zero diagnoses / (1) One diagnosis / (2) Two or more diagnoses			0.64	0.28	0.10	1.18	
12	6-. Comorbidity during the year of the ICD-10 group diseases of the musculoskeletal system and connective tissue → (0) Zero diagnoses / (1) One diagnosis / (2) Two or more diagnoses			1.28	0.49	0.31	2.25	
13	7-. Comorbidity during the year of the ICD-10 group symptoms, signs and abnormal clinical and laboratory findings not classified elsewhere → (0) Zero diagnoses / (1) One diagnosis / (2) Two or more diagnoses			-0.58	0.25	-1.06	-0.10	
14	8-. History of chronic widespread pain lasting more than 3 months → (0) No / (1) Yes			3.82	0.56	2.72	4.92	
15	9-. Pharmacological prescription during the year of the anti-inflammatory ATC group → (0) Zero drugs / (1) One drug / (2) Two or more drugs			-0.68	0.26	-1.19	-0.18	
16	10-. Pharmacological prescription during the year of the antiepileptic ATC group → (0) Zero drugs / (1) One drug / (2) Two or more drugs			1.55	0.66	0.26	2.85	
17	_cons			-3.00	0.20	-3.38	-2.61	
18	Betas			6.91				

Fibromyalgia Risk Calculator									
Person Data									
1-. Self-reported age at onset of symptoms → Years	55	Interpretation: Percentages ≥ 50% show probability (+) of having FM. Percentages < 50% show probability (-) of having FM.							
2-. First-line family history of Neurological Diseases → (0) No / (1) Yes	1								
3-. Exposure to stress levels → (0) No / (1) Yes	1								
4-. History of post-traumatic acute emotional stress → (0) No / (1) Yes	1								
5-. Comorbidity during the year of the ICD-10 group diseases of the nervous system → (0) Zero diagnoses / (1) One diagnosis / (2) Two or more diagnoses	1	Important: Confirm diagnosis with ACR 1990 criteria							
6-. Comorbidity during the year of the ICD-10 group diseases of the musculoskeletal system and connective tissue → (0) Zero diagnoses / (1) One diagnosis / (2) Two or more diagnoses	1								
7-. Comorbidity during the year of the ICD-10 group symptoms, signs and abnormal clinical and laboratory findings not classified elsewhere → (0) Zero diagnoses / (1) One diagnosis / (2) Two or more diagnoses	0	Probability of having FM: 99.06 %							
8-. History of chronic widespread pain lasting more than 3 months → (0) No / (1) Yes	1								
9-. Pharmacological prescription during the year of the anti-inflammatory ATC group → (0) Zero drugs / (1) One drug / (2) Two or more drugs	0								
10-. Pharmacological prescription during the year of the antiepileptic ATC group → (0) Zero drugs / (1) One drug / (2) Two or more drugs	1								

Supplementary Table S2. Bivariate analysis of the potential predictors of FM. Source: created by author.

VARIABLES	Patients with Fibromyalgia (n=198)	Patients without Fibromyalgia (n=128)	p-value
Predisposing factors			
Self-reported age at diagnosis, median (IQR)	46.5 (40 - 52)	57 (50 - 63)	<0.001**
Self-reported age at symptom onset, median (IQR)	40 (33 - 47)	54 (48 - 62.5)	<0.001**
Personal history of recurrent pain prior to diagnosis (n=246), %	89.39%	53.91%	<0.001
Pregnancy of the mother subjected to situations of severe stress (n=94), %	37.88%	14.84%	<0.001
First-line family history of depression (n=136), %	52.53%	25.00%	<0.001
First-line family history of chronic fatigue (n=21), %	10.10%	0.78%	0.001
First-line family history of neurological diseases [^] (n=93), %	36.36%	16.41%	<0.001
Triggers			
Exposure to chemical agents prior to diagnosis (n=74), %	27.78%	14.84%	0.006
Exposure to stress levels prior to diagnosis (n=282), %	95.45%	72.66%	<0.001
History of post-traumatic acute emotional stress prior to diagnosis (n=200)	79.29%	33.59%	<0.001
Comorbidity during the year of diagnosis confirmation: ICD-10 group nervous system diseases	n=197	n= 128	0.001
One diagnosis (n=74), %	28.93%	13.28%	
Two or more diagnoses (n=17), %	6.60%	3.13%	
Comorbidity during the year of diagnosis confirmation: ICD-10 group musculoskeletal system and connective tissue diseases	n=197	n= 128	0.004
One diagnosis (n=59), %	13.18%	25.78%	
Two or more diagnoses (n=266), %	86.80%	74.22%	
Comorbidity during the year of diagnosis confirmation: ICD-10 group abnormal clinical and laboratory symptoms, signs, and findings not elsewhere classified	n=197	n= 128	0.140
One diagnosis (n=81), %	21.32%	30.47%	
Two or more diagnoses (n=119), %	37.06%	35.94%	
Comorbidity during the year of diagnosis confirmation: ICD-10 group factors influencing health status and contact with health services	n=197	n= 128	0.018
One diagnosis (n=16), %	4.06%	6.25%	
Two or more diagnoses (n=278), %	89.85%	78.91%	
Other variables of interest			
Self-report of estimated time in years from symptom onset to diagnostic confirmation, median (IQR)	4(2-8)	1 (0-2)	<0.001**
Personal history of chronic widespread pain lasting more than 3 months prior to diagnosis (n=222), %	96.97%	23.44%	<0.001
Pharmacological prescription during the year of diagnostic confirmation: antidepressants ATC group	n=198	n=127	<0.001
One drug (n=43), %	18.18%	5.51%	
Two or more drugs (n=27), %	11.11%	3.94%	
Pharmacological prescription during the year of diagnostic confirmation: antiepileptic ATC group	n=198	n=127	0.026*
One drug (n=26), %	10.61%	3.94%	
Two or more drugs (n=3), %	1.52%	0.00%	
Pharmacological prescription during the year of diagnostic confirmation: anti-inflammatory ATC group	n=198	n=127	0.014
One drug (n=64), %	16.16%	25.20%	
Two or more drugs (n=34), %	8.08%	14.17%	

[^] Family history of neurological disease: diseases affecting the central nervous system and peripheral nervous system, for example: dementia, stroke, epilepsy, Parkinson's, multiple sclerosis, migraine.

p-value: χ^2 ; *Fisher's exact test; **Mann-Whitney U-test.

Supplementary Table S3. Logistic Regression for the prespecified and final models. Source: created by author.

VARIABLES	Coef.	95% CI Inf	95% CI Sup	Std. Err.	Odds ratio	95% CI Inf	95% CI Sup	p>z
PRESPECIFIED MODEL								
Predisposing factors								
Self-reported age at symptom onset	-0.34	-2.68	1.99	1.19	0.71	0.07	7.33	0.773
Self-reported age at diagnosis	0.25	-2.09	2.60	1.20	1.29	0.12	13.40	0.833
Pregnancy of the mother subjected to situations of severe stress	0.29	-1.31	1.89	0.82	1.33	0.27	6.59	0.724
Personal history of recurrent pain prior to diagnosis	0.90	-0.59	2.39	0.76	2.46	0.55	10.96	0.238
First-line family history of neurological diseases	2.88	0.66	5.11	1.14	17.90	1.93	166.03	0.011
First-line family history of depression	0.65	-0.68	1.99	0.68	1.92	0.51	7.32	0.338
First-line family history of chronic fatigue	3.01	-0.87	6.89	1.98	20.32	0.42	985.05	0.128
Triggers								
Exposure to chemical agents prior to diagnosis	0.85	-0.86	2.57	0.88	2.35	0.42	13.10	0.330
Exposure to levels of stress prior to diagnosis	2.50	0.79	4.21	0.87	12.17	2.20	67.22	0.004
History of post-traumatic acute emotional stress prior to diagnosis	1.08	-0.28	2.43	0.69	2.94	0.76	11.39	0.119
Comorbidity during the year of diagnostic confirmation: ICD-10 group diseases of the nervous system	1.25	0.16	2.33	0.55	3.48	1.18	10.30	0.024
Comorbidity during the year of diagnostic confirmation: ICD-10 group diseases of the musculoskeletal system and connective tissue	2.51	0.64	4.37	0.95	12.25	1.90	79.08	0.008
Comorbidity during the year of diagnostic confirmation: ICD-10 group symptoms, signs, and abnormal clinical and laboratory findings not elsewhere classified	-0.93	-1.81	-0.05	0.45	0.39	0.16	0.95	0.038
Comorbidity during the year of diagnostic confirmation: ICD-10 group factors influencing health status and contact with health services	1.29	0.14	2.43	0.58	3.62	1.15	11.36	0.027
Other variables of interest								
Personal history of chronic widespread pain lasting more than 3 months prior to diagnosis	6.51	4.44	8.57	1.05	669.73	85.09	5.271,49	<0.001
Self-report of the estimated time in years from the onset of symptoms to diagnostic confirmation	-0.23	-2.59	2.13	1.20	0.80	0.08	8.44	0.851
Pharmacological prescription during the year of diagnostic confirmation: anti-inflammatory ATC group	-1.60	-2.81	-0.38	0.62	0.20	0.06	0.68	0.010
Pharmacological prescription during the year of diagnostic confirmation: antiepileptic ATC group	3.90	1.07	6.74	1.45	49.64	2.91	846.45	0.007
Pharmacological prescription during the year of diagnostic confirmation: antidepressants ATC group	0.66	-0.68	2.00	0.68	1.94	0.51	7.38	0.333
_cons	-10.32	-16.26	-4.39	3.03	0.00	0.00	0.01	0.001
FINAL MODEL (USING BACKWARD MODEL)								
Predisposing factors								
Self-reported age at symptom onset	-0.11	-0.15	-0.07	0.02	0.90	0.86	0.94	<0.001
First-line family history of Neurological Diseases	2.41	0.67	4.14	0.89	11.08	1.95	62.88	0.007
Triggers								
Exposure to levels of stress prior to diagnosis	2.43	0.91	3.96	0.78	11.37	2.48	52.23	0.002
History of post-traumatic acute emotional stress prior to diagnosis	1.77	0.57	2.98	0.61	5.88	1.76	19.61	0.004
Comorbidity during the year of diagnostic confirmation: group ICD-10 diseases of the nervous system	1.08	0.17	1.98	0.46	2.94	1.19	7.27	0.020
Comorbidity during the year of diagnostic confirmation: ICD-10 group diseases of the musculoskeletal system and connective tissue	2.15	0.52	3.77	0.83	8.55	1.68	43.44	0.010
Comorbidity during the year of diagnostic confirmation: ICD-10 group symptoms, signs, and abnormal clinical and laboratory findings not elsewhere classified	-0.97	-1.78	-0.17	0.41	0.38	0.17	0.85	0.018
Other variables of interest								
Personal history of chronic widespread pain lasting more than 3 months prior to diagnosis	6.41	4.56	8.26	0.94	606.98	95.60	3.853.67	<0.001
Pharmacological prescription during the year of diagnostic confirmation: anti-inflammatory ATC group	-1.14	-1.99	-0.30	0.43	0.32	0.14	0.74	0.008
Pharmacological prescription during the year of diagnostic confirmation: antiepileptic ATC group	2.60	0.43	4.78	1.11	13.52	1.54	118.76	0.019
_cons	-5.27	-8.91	-1.64	1.85	0.01	0.00	0.19	0.004

Supplementary Table S4. Goodness of fit and predictive characteristics of the prespecified and final models. Source: created by author.

	Prespecified model	Final model
Goodness of fit		
Hosmer-Lemeshow	Chi2(8): 8.35; $p > \chi^2$: 0.400	Chi2(8): 6.50; $p > \chi^2$: 0.592
Log-Lik intercept only:	-216.96	-216.96
Log-Lik full model:	-41.47	-48.59
Likelihood-ratio test:	350.99(19)	336.73(10)
Prob > LR:	<0.001	<0.001
McFadden's R2:	0.81	0.78
McFadden's Adj R2:	0.72	0.73
Akaike information criteria:	122.93	119.19
Bayesian information criteria:	-241.15	-278.92
Predictive characteristics		
Sensitivity	95.94%	95.94%
Specificity	93.70%	91.34%
Positive predictive value (PPV)	95.94%	94.50%
Negative predictive value (NPV)	93.70%	93.55%
False positives for patients who truly did not have FM	6.30%	8.66%
False negatives for patients who truly had FM	4.06%	4.06%
False positives for patients classified as a positive case	4.06%	5.50%
False negatives for patients classified as a negative case	6.30%	6.45%
Correctly classified	95.06%	94.14%