

Supplementary materials

* See supplement for EPOCONSUL consortia full list

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Table S1. Clinical characteristics of the audited cases associated with stepping up.

	No step up (n = 4141)	Step up (n = 307)	P value*
Previous history			
Gender (male)	3564 (86.1)	259 (84.4)	0.408
Age (years)	69.8 (9.7)	69.2 (9.8)	0.283
Active smokers (n)	973 (23.2)	70 (22.8)	0.885
Tobacco history (pack-years)	56.2 (33.6)	55.0 (35.1)	0.559
Body mass index (kg/m ²)	28.0 (5.4)	27.9 (5.6)	0.643
Comorbidities (Charlson)	2.8 (2.1)	2.8 (2.2)	0.772
Last available spirometry: post-BDT FVC (mL)	2698 (846)	2878 (909)	0.002
Last available spirometry: post-BDT FVC (%)	76.3 (20.5)	79.4 (18.9)	0.020
Last available spirometry: post-BDT FEV ₁ (mL)	1407 (577)	1499 (595)	0.023
Last available spirometry: post-BDT FEV ₁ (%)	52.2 (18.5)	53.9 (16.7)	0.166
Last available spirometry: positive BDT (n)	72 (1.7)	9 (2.9)	0.131
COPD Assessment Test (CAT)	14.2 (8.1)	15.4 (8.4)	0.260
Current clinical presentation			
Dyspnea (mMRC)	3.9 (1.9)	3.9 (1.9)	0.897
Highly symptomatic (mMRC ≥ 2)	1705 (41.2)	134 (43.6)	0.396
Chronic cough and expectoration	1703 (41.1)	146 (47.6)	0.027
Purulent sputum	467 (11.3)	31 (10.1)	0.527
Chronic colonization	253 (6.1)	16 (5.2)	0.524
Asthma-like symptoms	1077 (26.0)	105 (34.2)	0.002
Number of exacerbations	1.1 (1.5)	1.1 (1.3)	0.935

	No step up (n = 4141)	Step up (n = 307)	P value*
Number of hospitalizations	0.5 (0.9)	0.6 (0.8)	0.523
Frequent exacerbator	1717 (41.5)	129 (42.0)	0.849
Current spirometry: post-BDT FVC (mL)	2798 (887)	3087 (1028)	0.010
Current spirometry: post-BDT FVC (%)	76.5 (20.9)	84.6 (19.5)	0.002
Current spirometry: post-BDT FVC < 80%	364 (8.8)	30 (9.8)	< 0.001
Current spirometry: post-BDT FEV ₁ (mL)	1501 (611)	1616 (605)	0.131
Current spirometry: post-BDT FEV ₁ (%)	54.3 (18.6)	57.3 (18.3)	0.200
Current spirometry: positive BDT (n)	179 (4.3)	30 (9.8)	< 0.001
Current treatments			
No inhaled treatment or not recorded	102 (2.5)	22 (7.2)	< 0.001
One long-acting bronchodilator	470 (11.3)	41 (13.4)	0.288
Inhaled corticosteroids alone	4 (0.1)	1 (0.3)	0.248
Two long-acting bronchodilators	897 (21.7)	94 (30.6)	0.001
Long-acting bronchodilator with inhaled steroids	344 (8.3)	45 (14.7)	< 0.001
Triple therapy	2324 (56.1)	104 (33.9)	< 0.001
GesEPOC phenotypes			
GesEPOC phenotype: non-exacerbator	849 (20.5)	52 (16.9)	0.134
GesEPOC phenotype: ACO	273 (6.6)	35 (11.4)	0.001
GesEPOC phenotype: exacerbator emphysema	352 (8.5)	21 (6.8)	0.311
GesEPOC phenotype: exacerbator CB	421 (10.2)	46 (15.0)	0.008
Resources			
Monographic clinic (n)	954 (23.0)	76 (24.8)	0.491

	No step up (n = 4141)	Step up (n = 307)	P value*
Origin of referral: primary care	1469 (35.5)	112 (36.5)	0.722
Origin of referral: secondary care	189 (4.6)	20 (6.5)	0.119
Origin of referral: respiratory clinic	566 (13.7)	50 (16.3)	0.200
Origin of referral: hospitalization	696 (16.8)	39 (12.7)	0.062
Origin of referral: emergency room	230 (5.6)	16 (5.2)	0.800
Time from last visit (days)	217 (257)	265 (317)	0.002

* Calculated with Chi-squared test or unpaired T test depending on the nature of the variable.

FVC: forced vital capacity. FEV₁: forced expiratory volume in the first second. BDT: bronchodilation test. GesEPOC: Spanish National guideline for COPD management

Table S2. Clinical characteristics of the audited cases associated with stepping down.

	No step down (n = 4266)	Step down (n = 182)	P value*
Previous history			
Gender (male)	3674 (86.1)	149 (81.9)	0.106
Age (years)	69.8 (9.8)	69.0 (9.5)	0.279
Active smokers (n)	985 (23.1)	44 (24.2)	0.734
Tobacco history (pack-years)	55.9 (33.5)	59.7 (37.3)	0.137
Body mass index (kg/m ²)	28.0 (5.4)	28.5 (4.7)	0.200
Comorbidities (Charlson)	2.8 (2.1)	2.9 (1.9)	0.925
Last available spirometry: post-BDT FVC (mL)	2706 (857)	2834 (707)	0.062
Last available spirometry: post-BDT FVC (%)	76.4 (20.5)	79.2 (16.7)	0.094
Last available spirometry: post-BDT FEV ₁ (mL)	1408 (574)	1561 (675)	0.005
Last available spirometry: post-BDT FEV ₁ (%)	52.2 (18.4)	55.3 (16.4)	0.073
Last available spirometry: positive BDT (n)	78 (1.8)	3 (1.6)	0.859
COPD Assessment Test (CAT)	14.2 (8.2)	14.4 (7.5)	0.881
Current clinical presentation			
Dyspnea (mMRC)	4.0 (1.9)	3.6 (1.9)	0.003
Highly symptomatic (mMRC ≥ 2)	1779 (41.7)	60 (33.0)	0.019
Chronic cough and expectoration	1775 (41.6)	74 (40.7)	0.799
Purulent sputum	484 (11.3)	14 (7.7)	0.126
Chronic colonization	262 (6.1)	7 (3.8)	0.203
Asthma-like symptoms	1130 (26.5)	52 (28.6)	0.533
Number of exacerbations	1.1 (1.5)	0.9 (1.3)	0.234

	No step down (n = 4266)	Step down (n = 182)	P value*
Number of hospitalizations	0.4 (0.9)	0.4 (0.7)	0.075
Frequent exacerbator	1775 (41.6)	71 (39.0)	0.486
Current spirometry: post-BDT FVC (mL)	2830 (923)	2769 (555)	0.517
Current spirometry: post-BDT FVC (%)	77.5 (21.1)	74.0 (17.1)	0.292
Current spirometry: post-BDT FVC < 80%	368 (8.6)	26 (14.3)	0.025
Current spirometry: post-BDT FEV ₁ (mL)	1515 (621)	1481 (406)	0.616
Current spirometry: post-BDT FEV ₁ (%)	54.7 (18.8)	53.7 (13.7)	0.657
Current spirometry: positive BDT (n)	203 (4.8)	6 (3.3)	0.361
Current treatments			
No inhaled treatment or not recorded	116 (2.7)	8 (4.4)	0.178
One long-acting bronchodilator	503 (11.8)	8 (4.4)	0.002
Inhaled corticosteroids alone	5 (0.1)	0 (0)	0.644
Two long-acting bronchodilators	970 (22.7)	21 (11.5)	< 0.001
Long-acting bronchodilator with inhaled steroids	359 (8.4)	30 (16.54)	< 0.001
Triple therapy	2313 (54.2)	115 (63.2)	0.017
GesEPOC phenotypes			
GesEPOC phenotype: non-exacerbator	839 (19.7)	62 (34.1)	< 0.001
GesEPOC phenotype: ACO	297 (7.0)	11 (6.0)	0.633
GesEPOC phenotype: exacerbator emphysema	362 (8.5)	11 (6.0)	0.244
GesEPOC phenotype: exacerbator CB	445 (10.4)	22 (12.1)	0.475
Resources			
Monographic clinic (n)	3294 (77.2)	124 (68.1)	0.004

	No step down (n = 4266)	Step down (n = 182)	P value*
Origin of referral: primary care	1521 (35.7)	60 (33.0)	0.458
Origin of referral: secondary care	199 (4.7)	10 (5.5)	0.604
Origin of referral: respiratory clinic	591 (13.9)	25 (13.7)	0.964
Origin of referral: hospitalization	704 (16.5)	31 (17.0)	0.850
Origin of referral: emergency room	233 (5.5)	13 (7.1)	0.331
Time from last visit (days)	218 (255)	279 (388)	0.035

* Calculated with Chi-squared test or unpaired T test depending on the nature of the

variable.

FVC: forced vital capacity. FEV₁: forced expiratory volume in the first second. BDT:

bronchodilation test. GesEPOC: Spanish National guideline for COPD management.