

Online Table 1. The relationship between smoking status and corticosteroid treatment failure among AECOPD in patients

	Case, n (%)	Unadjusted OR (95% CI)	Muti-Adjusted OR (95% CI)
Treatment failure			
Non-smoker	276 (31.0)	Reference	Reference
Smoker	682 (27.1)	0.83 (0.70-0.98)	0.85 (0.69-1.04)

Abbreviations: AECOPD, acute exacerbations of chronic obstructive pulmonary disease; CI, confidence intervals; EOS, eosinophil percentage; OR, odds ratio.

Adjusted for age, gender, Charlson index, number of AECOPD hospitalizations in the previous year, white blood cell count, and antibiotics use.

Online Table 2. Association of blood eosinophil percentage with corticosteroid treatment failure across smoking status

	Case, n (%)	Unadjusted OR (95% CI)	Muti-Adjusted OR (95% CI)
Treatment failure			
Non-smoker (n=889)			
EOS<2%	184 (35.5)	Reference	Reference
EOS≥2%	92 (24.8)	0.60 (0.44-0.80)	0.70 (0.52-0.96)
Former smoker (n=1749)			
EOS<2%	324 (34.4)	0.95 (0.76-1.19)	0.88 (0.68-1.15)
EOS≥2%	180 (22.3)	0.52 (0.41-0.67)	0.62 (0.47-0.82)
Current smoker (n=764)			
EOS<2%	115 (26.4)	0.65 (0.50-0.86)	0.70 (0.52-0.96)
EOS≥2%	63 (19.2)	0.43 (0.31-0.60)	0.62 (0.44-0.90)

Abbreviations: CI, confidence intervals; EOS, eosinophil percentage; OR, odds ratio. Adjusted for age, gender, Charlson index, number of AECOPD hospitalizations in the previous year, white blood cell count, and antibiotics use.

Online Table 3. Subgroup analysis stratification by systemic corticosteroid or non-systemic corticosteroid

	Case, n (%)	Unadjusted OR (95% CI)	Muti-Adjusted OR (95% CI)
Treatment failure			
Systemic Corticosteroid			
Non-smoker			
EOS<2%	68 (26.4)	Reference	Reference
EOS≥2%	58 (20.7)	0.73 (0.49-1.09)	0.84 (0.55-1.28)
Smoker			
EOS<2%	155 (22.3)	0.80 (0.58-1.13)	0.74 (0.51-1.07)
EOS≥2%	155 (17.4)	0.59 (0.42-0.82)	0.69 (0.47-0.99)
Non-Systemic Corticosteroid			
Non-smoker			
EOS<2%	116 (44.6)	Reference	Reference
EOS≥2%	34 (37.4)	0.74 (0.45-1.21)	0.80 (0.48-1.35)
Smoker			
EOS<2%	284 (41.6)	0.89 (0.66-1.18)	0.85 (0.60-1.20)
EOS≥2%	88 (35.9)	0.70 (0.49-0.99)	0.79 (0.52-1.21)

Abbreviations: CI, confidence intervals; EOS, eosinophil percentage; OR, odds ratio.

Adjusted for age, gender, Charlson index, number of AECOPD hospitalizations in the previous year, white blood cell count, and antibiotics use.

Online Table 4. Characteristics of AECOPD patients by smoking status

Variables	Smoking status			P value
	Non-smoker (n=889)	Former smoker (n=1749)	Current smoker (n=764)	
Age, y	74.0 (65.0-80.0)	72.0 (64.0-78.0)	67.0 (60.0-75.0)	<0.001
Male, n (%)	310 (34.9)	1563 (89.4)	651 (85.2)	<0.001
Pack years history, y	-	33.8 (20.0-50.0)	40.0 (25.0-60.0)	-
Charlson index, n (%)				
0	340 (38.2)	731 (41.8)	371 (48.6)	<0.001
1	327 (36.8)	649 (37.1)	254 (33.2)	
2	106 (11.9)	183 (10.5)	65 (8.5)	
≥3	116 (13.0)	186 (10.6)	74 (9.7)	
Hypertension, n (%)	458 (51.2)	740 (42.3)	306 (40.0)	<0.001
Diabetes, n (%)	173 (19.5)	248 (14.2)	104 (13.6)	<0.001
Congestive heart failure, n (%)	26 (2.9)	36 (2.1)	10 (1.3)	0.07
Hospitalized for AECOPD in previous year, n (%)				
0	769 (86.5)	1462 (83.6)	671 (87.8)	0.02
1	86 (9.7)	181 (10.4)	64 (8.4)	
≥2	34 (3.8)	106 (6.1)	29 (3.8)	
White blood cell count, 10 ⁹ /L	6.5 (5.3-8.4)	7.0 (5.5-8.9)	6.9 (5.7-8.8)	<0.001
Corticosteroid use during hospitalization, n (%)				
Only inhaled corticosteroid	351 (39.5)	661 (37.8)	266 (34.8)	0.14
Systemic corticosteroid	538 (60.5)	1088 (62.2)	498 (65.2)	

Antibiotics use during hospitalization, n (%)	840 (94.5)	1638 (93.6)	700 (91.6)	0.05
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