

Table S1 Characteristics of patients with and without *P. aeruginosa* (PA) isolation

Variable	PA (+) n=25	PA (-) n=205	P-value
Gender, female	10 (40.0%)	14 (6.8%)	<0.001
Age, years	66.3±9.6	68.7±7.4	0.018
BMI, kg/m ²	21.7±2.9	22.0±3.3	0.402
Region, Seoul	10 (40.0%)	65 (31.7%)	0.267
Smoking	14 (56.0%)	197 (96.1%)	<0.001
Alcohol drinking, per month	12.7±23.3	14.1±17.5	0.460
PFT			
Post-BD FEV ₁ , % pred	45.5±15.4	49.4±17.8	0.523
Post-BD FVC, % pred	68.7±14.3	76.3±17.6	0.320
Post-BD FEV ₁ /FVC, %	48.0±11.5	46.1±12.7	0.563
GOLD stage, III-IV	13 (52.0%)	108 (52.7%)	0.557
CAT score	21.9±6.0	22.8±7.7	0.061
EXACT-PRO score	42.7±8.4	45.7±12.9	0.251
Initial laboratory data			
Eosinophil count	171.7±160.1	218.4±219.8	0.173
Albumin	4.1±0.4	4.2±0.4	0.315
Previous Medications			
Systemic steroid use	6 (24.0%)	51 (24.9%)	0.572
Continuous steroid use	3 (50.0%)	25 (49.0%)	0.648
Inhaled corticosteroid use	16 (64.0%)	140 (68.3%)	0.410
Underlying diseases			
Any malignancy	1 (4.0%)	23 (11.2%)	0.232
Cardiovascular dis.	9 (36.0%)	98 (47.8%)	0.183
Diabetes Mellitus	2 (8.0%)	22 (10.7%)	0.500
Bronchitis	11 (44.0%)	72 (35.1%)	0.254
Bronchiectasis	6 (24.0%)	18 (8.8%)	0.031

BMI, Body Mass Index; PFT, Pulmonary Function Test; BD, Bronchodilator; FEV₁, forced expiratory volume in one second; FVC, forced vital capacity; GOLD, Global Initiative for Chronic Obstructive Lung disease; CAT, COPD Assessment Test; EXACT, The EXAcerbations of Chronic pulmonary disease Tool; PRO, Patient-Reported Outcome.

Table S2 A multivariable logistic regression for clinical response in patients with moderate exacerbations of COPD

Variable	Multivariable	
	OR (95% CI)	P value [†]
Age, years	0.982 (0.946–1.018)	0.325
Women	0.440 (0.185–1.047)	0.063
Current smoker	1.384 (0.702–2.725)	0.348
BMI	1.020 (0.936–1.111)	0.658
FEV ₁ % predicted	0.993 (0.978–1.009)	0.404
Zabofloxacin vs. Moxifloxacin	1.007 (0.576–1.763)	0.979
Pneumococcal UAT (+)	2.366 (0.517–10.838)	0.267

[†], Adjusted for age, sex, smoking status, BMI, FEV₁ (% predicted), treatment group, and Pneumococcal UAT positivity was included in the multivariable model. BMI, body mass index; FEV₁, forced expiratory volume in one second; UAT, urinary antigen test.

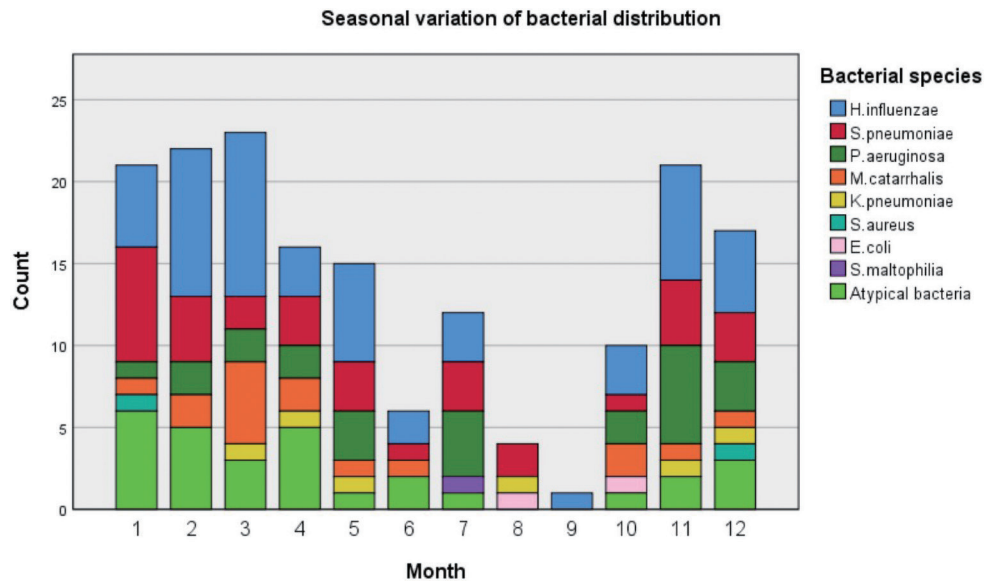


Figure S1 Seasonal variation of bacteria distribution. H. influenza: *Haemophilus influenzae*; S. pneumonia: *Streptococcus pneumoniae*; P. aeruginosa: *Pseudomonas aeruginosa*; M. catarrhalis: *Moraxella catarrhalis*; K. pneumoniae: *Klebsiella pneumoniae*; S. aureus: *Staphylococcus aureus*; E. coli: *Escherichia coli*; S. maltophilia: *Stenotrophomonas maltophilia*.