

Appendix 1*The names of ethics committees*

Gacheon University Gil Medical Center, Hallym University Kangnam Sacred Heart Hospital, Gangnam Severance Hospital, Kyung Hee University Hospital at Gangdong, Hallym University Kangdong Sacred Heart Hospital, Kangbuk Samsung Hospital, Kangwon National University Hospital, Konkuk University Hospital, Konkuk University Chungju Hospital, Kyungpook National University Hospital, Gyeongsang National University Hospital, Korea University Guro Hospital, Korea University Anam Hospital, Seoul Eulji Hospital, Dongguk University Gyeongju Hospital, Dongguk University Ilsan Hospital, Keimyung University Dongsan Medical Center, Dong-A University Hospital, Hallym University Dongtan Sacred Heart Hospital, Pusan National University Hospital, Inje University Busan Paik Hospital, The Catholic University of Korea Bucheon St Mary's Hospital, Soonchunhyang University Hospital Bucheon, Seoul National University Bundang Hospital, Bundang CHA Hospital, Seoul Metropolitan Government Seoul National University Bora-mae Medical Center, Samsung Medical Center, Soonchunhyang University Hospital Seoul, The Catholic University of Korea Seoul St Mary's Hospital, The Catholic University of Korea St Paul's Hospital, The Catholic University of Korea St Vincent's Hospital, Severance Hospital, Asan Medical Center, Ajou University Hospital, The Catholic University of Korea Yeouido St Mary's Hospital, The Catholic University of Korea Uijeongbu St Mary's Hospital, Yeungnam University Medical Center, Ulsan University Hospital, Wonkwang University Sanbon Hospital, Wonju Severance Christian Hospital, Ewha Womans University Mokding Hospital, Incheon St Mary's Hospital, Inha University Hospital, Chonnam National University Hospital, Chonbuk National University Hospital, Hanyang University Seoul Hospital, Kyung Hee University medical center, Chungnam National University Hospital, Inje University Ilsan Paik Hospital, Jeju National University Hospital, Soonchunhyang University Hospital Cheonan, Hallym University Chuncheon Sacred Heart Hospital, Hallym University Sacred Heart Hospital, and Hanyang University Guri Hospital.

Table S1 Comparison of baseline characteristics between the wheezing and non-wheezing group

Characteristics	Wheezing group (n=630)	Non-wheezing group (n=491)	P value
Age, years	68.5±7.8	69.3±7.3	0.102
Male sex	615 (97.6)	477 (97.1)	0.623
Smoking			
Current smoker	199 (31.6)	132 (26.9)	0.087
Pack-year	45.9±23.9	44.1±22.6	0.205
Body mass index, kg/m ²	22.1±3.4	22.7±3.4	0.123
CAT score	17.1±7.8	11.9±7.1	<0.001
mMRC grade	1.5±0.9	1.1±0.8	<0.001
SGRQ-C, total	41.2±21.6	23.4±16.2	<0.001
6MWD, m	370.0±111.2	389.1±122.6	0.016
Blood eosinophil count (cells/ μ L)	237.5±266.4	234.5±276.5	0.853
Moderate to severe exacerbation in the previous year	147 (23.3)	74 (15.1)	0.001
Pulmonary function test			
postBD FVC, L	3.3±0.8	3.4±0.7	0.005
postBD FVC, % pred	80.0±16.4	82.9±15.9	0.003
postBD FEV ₁ , L	1.6±0.6	1.8±0.6	<0.001
postBD FEV ₁ , % pred	55.6±18.1	61.6±17.7	<0.001
postBD FEV ₁ /FVC	49.1±11.7	52.4±11.5	<0.001
DLCO (% predicted)	62.6±20.9	63.5±19.7	0.503
Baseline inhaler use			
LAMA	172 (27.3)	130 (26.5)	0.757
LABA	69 (11.0)	53 (10.8)	0.933
LABA + LAMA	77 (12.2)	94 (19.1)	0.001
ICS + LABA	83 (13.2)	49 (10.0)	0.100
ICS + LABA + LAMA	176 (27.9)	91 (18.5)	<0.001
ICS containing treatment	264 (41.9)	145 (29.5)	<0.001
Comorbidities			
Myocardial infarction	27 (4.3)	18 (3.7)	0.600
Heart failure	23 (3.7)	15 (3.1)	0.584
Diabetes mellitus	124 (19.7)	96 (19.6)	0.956
Hypertension	243 (38.6)	167 (34.0)	0.116
Previous pulmonary tuberculosis	148 (23.5)	113 (23.0)	0.872
Allergic rhinitis	60 (9.5)	30 (6.1)	0.034
Chest radiography findings	n=494	n=392	
Tuberculosis destroyed lung	19 (3.8)	23 (5.9)	0.160
Old tuberculosis	63 (12.8)	46 (11.7)	0.526
Emphysema	187 (37.9)	117 (29.8)	0.013
Bronchiectasis	30 (6.1)	26 (6.6)	0.734