

SUPPLEMENTARY TABLE S3 Performance of the staging methods based on z score and FEV₁·Ht⁻³ in predicting outcomes when using 5-stage cutoff values

Method of staging (cutoff values)	Crude OR for ≥ 1 SAE at 1 year (95% CI)	Adjusted OR [#] for ≥ 1 SAE at 1 year (95% CI)	Crude OR for ≥ 2 SAE at 1 year (95% CI)	Adjusted OR [#] for ≥ 2 SAE at 1 year (95% CI)
Z score (5-stage)[†]				
1 (≥-2)	1	1	1	1
2 (≥-2.5 and < -2)	0.70 (0.13-3.72)	0.66 (0.11-3.84)	NA	NA
3 (≥-3 and < -2.5)	9.57 (3.38-27.10)**	10.00 (3.21-31.17)**	17.50 (2.18-140.59)*	19.70 (1.88-206.86)*
4 (≥-4 and < -3)	4.66 (1.60-13.54)*	4.78 (1.45-15.78)*	13.21 (1.63-106.91)*	12.24 (1.09-137.92)*
5 (<-4)	4.64 (1.12-19.28)*	10.66 (1.78-64.06)*	10.71 (0.92-124.77)	38.97 (1.42-1073.5)*
FEV₁·Ht⁻³ (quintile)[‡]				
1 (≥0.40)	1	1	1	1
2 (≥0.32 and <0.40)	1.53 (0.41-5.71)	1.42 (0.35-5.81)	0.98 (0.06-16.09)	0.91 (0.04-19.00)
3 (≥0.26 and <0.32)	1.63 (0.45-5.88)	1.43 (0.36-5.75)	2.77 (0.28-27.33)	2.18 (0.16-29.54)
4 (≥0.21 and <0.26)	7.60 (2.39-24.19)**	5.65 (1.58-20.27)*	10.26 (1.24-85.00)*	5.65 (0.50-64.37)
5 (<0.21)	4.00 (1.21-13.28)*	3.11 (0.81-11.98)	11.80 (1.44-96.56)*	7.85 (0.66-94.11)
Method of staging (cutoff values)	Crude OR for ≥ 1 SAE every year at 2 years (95% CI)	Adjusted OR [#] for ≥ 1 SAE every year at 2 years (95% CI)	Crude HR for all-cause mortality (95% CI)	Adjusted HR [¶] for all-cause mortality (95% CI)
Z score (5-stage)[†]				
1 (≥-2)	1	1	1	1
2 (≥-2.5 and < -2)	NA	NA	1.95 (0.84-4.50)	2.20 (0.94-5.14)
3 (≥-3 and < -2.5)	23.16 (2.91-184.11)**	33.43 (3.22-347.19)**	2.49 (1.15-5.40)*	2.49 (1.13-5.51)*
4 (≥-4 and < -3)	12.25 (1.51-99.23)*	20.00 (1.87-214.03)*	3.12 (1.51-6.48)**	3.86 (1.77-8.41)**
5 (<-4)	5.19 (0.31-87.29)	23.25 (0.86-625.93)	1.34 (0.29-6.12)	5.98 (1.01-35.30)*
FEV₁·Ht⁻³ (quintile)[‡]				
1 (≥0.40)	1	1	1	1
2 (≥0.32 and <0.40)	2.89 (0.29-28.67)	3.27 (0.28-37.71)	1.97 (0.62-6.28)	1.68 (0.52-5.45)
3 (≥0.26 and <0.32)	2.61 (0.26-25.81)	2.72 (0.23-31.60)	3.68 (1.24-10.95)*	2.64 (0.87-8.02)
4 (≥0.21 and <0.26)	11.63 (1.42-95.56)*	11.73 (1.20-114.36)*	5.15 (1.76-15.09)**	3.38 (1.13-10.13)*
5 (<0.21)	8.63 (1.02-72.86)*	10.76 (1.03-112.96)*	4.33 (1.45-12.87)*	2.94 (0.96-9.02)

FEV₁, forced expiratory volume in 1 second; FEV₁·Ht⁻³, FEV₁ over height cubed; OR, odds ratio; HR, hazard ratio; SAE, severe acute exacerbation; 95% CI, 95% confidence interval; NA, statistical estimates could not be obtained due to too few the event counts. [†] : The five-stage cutoff values were proposed by Quanjer *et al* [1]. [‡] : The use of quintiles of FEV₁·Ht⁻³ was proposed by Pedone *et al* [2]. [#] : Adjusted for age, body mass index, Charlson comorbidity index, smoking status, and history of severe acute exacerbation in the preceding year. [¶] : Adjusted for age, body mass index, Charlson comorbidity

REFERENCES FOR SUPPLEMENTARY TABLE S3:

- 1 Quanjer PH, Pretto JJ, Brazzale DJ, *et al.* Grading the severity of airways obstruction: new wine in new bottles. *Eur Respir J* 2014; 43: 505–512.
- 2 Pedone C, Scarlata S, Scichilone N, *et al.* Alternative ways of expressing FEV₁ and mortality in elderly people with and without COPD. *Eur Respir J* 2013; 41: 800–805.