

Appendix 1. Comparison of pulmonary function test values if defined as Moderate by COPD-X to Severe as GOLD or GLI-2012.

	Moderate COPD-X (n=96)	Severe GOLD (n=97)	p-value	Severe GLI (n=83)	p-value
FVC post-BD (L)	2.3 (2.16, 2.43)	2.03 (1.92, 2.14)	0.002*	2.31 (2.16, 2.45)	0.940
FVC post-BD (%)	62.61 (60.67, 64.56)	55.8 (53.96, 57.65)	<0.001*	60 (57.39, 62.61)	0.106
FVC post-BD (z)	-2.54 (-2.69, -2.38)	-3.14 (-3.31, -2.98)	<0.001*	-2.71 (-2.86, -2.56)	0.113
FEV ₁ post-BD (L)	1.4 (1.31, 1.48)	1.15 (1.08, 1.21)	<0.001*	1.37 (1.28, 1.47)	0.703
FEV ₁ post-BD (%)	48.46 (47.39, 49.53)	39.99 (38.86, 41.12)	<0.001*	45.1 (43.13, 47.06)	0.002*
FEV ₁ post-BD (z)	-3.32 (-3.42, -3.21)	-3.87 (-3.98, -3.75)	<0.001*	-3.49 (-3.56, -3.42)	0.008*
FEV ₁ /FVC post-BD (AV)	0.61 (0.59, 0.62)	0.57 (0.55, 0.59)	0.001*	0.59 (0.58, 0.61)	0.232
FEV ₁ /FVC post-BD (%)	76.91 (74.37, 79.44)	72.38 (70.21, 74.55)	0.008*	73.72 (70.41, 77.04)	0.126
FEV ₁ /FVC post-BD (z)	-2.68 (-2.85, -2.5)	-3.13 (-3.32, -2.95)	<0.001*	-2.88 (-3.05, -2.71)	0.102

Abbreviations: **BD**, Bronchodilator; **COPD**, Chronic obstructive pulmonary disease; **COPD-X**, Concise tool for chronic obstructive pulmonary disease; **FEV₁**, Forced expiratory volume in one second; **FVC**, Forced vital capacity; **GLI**, Global lung initiative; **GOLD**, global initiative for chronic obstructive lung disease; **Z**, z-score; *, Statistically significant.

Appendix 2.1. Severity of COPD airflow limitation within severity category according to three guideline classifications.

Severity classification	COPD-X (n=197) *	GOLD (n=197)	GLI-2012 (n=197)
Mild	69 (35%)	17 (9%)	42 (21%)
Moderate	90 (46%)	114 (58%)	66 (34%)
Severe	21 (11%)	65 (33%)	54 (27%)
Very Severe	-	1 (1%)	35 (18%)

*17 participants had FEV₁ >80% and thus were unclassified according to COPD-X.
Abbreviations: COPD, Chronic obstructive pulmonary disease; COPD-X, Concise tool for chronic obstructive pulmonary disease; GOLD, global initiative for chronic obstructive lung disease; GLI, Global lung initiative.

Appendix 2.2. Mean lung function parameters by severity category according to three guideline classifications with arbitrary inflation of lung function parameters by 15%.

Mild	COPD-X (n=69)	GOLD (n=17)	GLI-2012 (n=42)	p-value
FVC post-BD (L)	3.13 (2.95, 3.3)	3.9 (3.36, 4.44)	3.54 (3.23, 3.85)	0.010*
FVC post-BD (%)	87.69 (85.4, 89.99)	112.38 (104.58, 120.17)	100 (96.32, 103.69)	<0.001*
FVC post-BD (z)	-0.93 (-1.1, -0.75)	0.91 (0.32, 1.49)	0.02 (-0.27, 0.3)	<0.001*
FEV ₁ post-BD (L)	1.96 (1.85, 2.08)	2.56 (2.18, 2.95)	2.32 (2.1, 2.54)	<0.002*
FEV ₁ post-BD (%)	68.61 (67.17, 70.04)	92.27 (85.87, 98.67)	81.32 (78.31, 84.33)	<0.001*
FEV ₁ post-BD (z)	-2.16 (-2.28, -2.05)	-0.51 (-0.96, -0.07)	-1.27 (-1.48, -1.06)	<0.001*
FEV ₁ /FVC post-BD (AV)	0.63 (0.62, 0.64)	0.65 (0.64, 0.67)	0.65 (0.64, 0.67)	0.010*
FEV ₁ /FVC post-BD (%)	78.47 (76.88, 80.06)	81.96 (80.05, 83.87)	81.17 (79.88, 82.47)	0.010*
FEV ₁ /FVC post-BD (z)	-2.45 (-2.61, -2.29)	-2.07 (-2.29, -1.85)	-2.19 (-2.31, -2.07)	0.011*
Moderate	COPD-X (n=90)	GOLD (n=114)	GLI-2012 (n=66)	
FVC post-BD (L)	2.41 (2.29, 2.53)	2.91 (2.78, 3.04)	2.93 (2.75, 3.12)	<0.001*
FVC post-BD (%)	68.92 (67.07, 70.77)	82.31 (80.32, 84.29)	81.9 (79.59, 84.2)	<0.001*
FVC post-BD (z)	-2.38 (-2.53, -2.22)	-1.33 (-1.48, -1.17)	-1.35 (-1.52, -1.18)	<0.001*
FEV ₁ post-BD (L)	1.39 (1.33, 1.46)	1.8 (1.71, 1.88)	1.78 (1.66, 1.9)	<0.001*
FEV ₁ post-BD (%)	49.76 (48.41, 51.1)	63.42 (61.91, 64.93)	61.96 (60.63, 63.3)	<0.001*
FEV ₁ post-BD (z)	-3.38 (-3.49, -3.26)	-2.47 (-2.58, -2.37)	-2.55 (-2.63, -2.48)	<0.001*
FEV ₁ /FVC post-BD (AV)	0.58 (0.57, 0.6)	0.62 (0.61, 0.63)	0.61 (0.59, 0.62)	0.003*
FEV ₁ /FVC post-BD (%)	72.49 (70.81, 74.17)	77.18 (75.91, 78.45)	75.91 (74.3, 77.53)	0.001*
FEV ₁ /FVC post-BD (z)	-3.03 (-3.19, -2.87)	-2.57 (-2.69, -2.44)	-2.68 (-2.82, -2.54)	0.001*
Severe	COPD-X (n=21)	GOLD (n=65)	GLI-2012 (n=54)	
FVC post-BD (L)	2.02 (1.83, 2.21)	2.18 (2.05, 2.3)	2.35 (2.19, 2.5)	0.010*
FVC post-BD (%)	55.88 (51.67, 60.09)	61.61 (59.42, 63.81)	67.93 (65.6, 70.26)	<0.001*
FVC post-BD (z)	-3.56 (-3.95, -3.18)	-3.02 (-3.21, -2.83)	-2.46 (-2.63, -2.28)	<0.001*
FEV ₁ post-BD (L)	1.03 (0.94, 1.13)	1.19 (1.12, 1.26)	1.35 (1.26, 1.44)	<0.001*
FEV ₁ post-BD (%)	35.18 (33.17, 37.2)	41.52 (40.33, 42.71)	48.38 (46.79, 49.98)	<0.001*
FEV ₁ post-BD (z)	-4.49 (-4.68, -4.3)	-4 (-4.11, -3.89)	-3.5 (-3.58, -3.43)	<0.001*
FEV ₁ /FVC post-BD (AV)	0.52 (0.49, 0.55)	0.55 (0.53, 0.57)	0.58 (0.56, 0.6)	0.001*
FEV ₁ /FVC post-BD (%)	63.64 (59.92, 67.36)	68.01 (65.88, 70.14)	71.64 (69.29, 73.99)	<0.001*
FEV ₁ /FVC post-BD (z)	-3.94 (-4.26, -3.62)	-3.49 (-3.69, -3.3)	-3.14 (-3.34, -2.93)	<0.001*
Very Severe	COPD-X	GOLD (n=1)	GLI-2012 (n=35)	
FVC post-BD (L)			2.14 (1.97, 2.31)	-
FVC post-BD (%)			57.33 (54.3, 60.37)	-
FVC post-BD (z)			-3.54 (-3.81, -3.28)	-
FEV ₁ post-BD (L)			1.18 (1.08, 1.28)	-
FEV ₁ post-BD (%)			38.42 (36.53, 40.32)	-
FEV ₁ post-BD (z)			-4.41 (-4.53, -4.29)	-
FEV ₁ /FVC post-BD (AV)			0.55 (0.53, 0.58)	-
FEV ₁ /FVC post-BD (%)			67.62 (64.25, 70.99)	-
FEV ₁ /FVC post-BD (z)			-3.62 (-3.92, -3.32)	-
* Significant difference lung function parameters by guideline categorisation (p<0.05)				
Abbreviations: BD, Bronchodilator; COPD, Chronic obstructive pulmonary disease; COPD-X, Concise tool for chronic obstructive pulmonary disease; FEV ₁ , Forced expiratory volume in one second; FVC, Forced vital capacity; GLI, Global lung initiative; GOLD, global initiative for chronic obstructive lung disease; Z, z-score; *, Statistically significant.				

