



Article

The effectiveness and tolerability of glycopyrronium for patients with chronic obstructive pulmonary disease in a clinical setting: GLARE-Taiwan

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Table S1. The change in CCQ total and domain scores between the baseline and end of study in the full analysis dataset and its corresponding subgroups.

	Treatment naïve patients (n=9)	Add-on patients (n=67)	Switched patients (n=26)	Total (n=102)
CCQ total score				
	Baseline			
Mean±SD	1.80±0.86	2.18±1.05	1.52±1.07	2.02±1.04
Median (Min-Max)	1.85 (1.1, 2.33)	2.00 (1.43, 2.90)	1.20 (1.00, 1.80)	1.80 (1.3, 2.7)
	Month 6/EOS			
Mean±SD	1.4 ±0.96	1.69±1.19	1.45±1.10	1.63±1.14
Median (Min-Max)	1.10 (0.75, 2.15)	1.35 (0.80, 2.35)	1.20 (0.70, 1.75)	1.30 (0.80, 2.25)
	Change from baseline			
Mean±SD	-0.61±0.57	-0.45±0.95	0.14±0.73	-0.39±0.90
Median (Min-Max)	-0.80 (-0.90, -0.15)	-0.40 (-0.80, 0.05)	0.15 (-0.20, 0.60)	-0.30 (-0.80, 0.10)
P-value	0.047*	0.004*	0.484	0.002*
CCQ symptoms score				
	Baseline			
Mean±SD	2.11±1.04	2.46±1.05	1.75±1.05	2.30±1.07
Median (Min-Max)	1.88 (1.50, 2.69)	2.25 (1.75, 3.25)	1.50 (1.00, 2.00)	2.00 (1.50, 3.06)
	Month 6/EOS			
Mean±SD	1.46±0.60	1.77±1.25	1.53±0.86	1.70±1.14
Median (Min-Max)	1.25 (1.00, 2.00)	1.50 (0.81, 2.50)	1.38 (0.94, 1.94)	1.50 (1.00, 2.50)
	Change from baseline			
Mean±SD	-0.82±0.55	-0.71±0.90	0.09±0.87	-0.61±0.90
Median (Min-Max)	-0.75 (-1.25, -0.50)	-0.75 (-1.19, -0.25)	0.38 (-0.44, 0.56)	-0.75 (-1.25, -0.19)
P-value	0.031*	<0.001**	0.719	<0.001**
CCQ functional state score				
	Baseline			
Mean±SD	1.38±1.02	1.92±1.27	1.38±1.09	1.75±1.22
Median (Min-Max)	1.13 (0.50, 2.00)	1.75 (1.00, 2.69)	1.00 (0.75, 1.50)	1.50 (1.00, 2.50)
	Month 6/EOS			
Mean±SD	1.36±1.46	1.79±1.39	1.41±1.22	1.68±1.37
Median (Min-Max)	1.00 (0.75, 1.25)	1.50 (1.00, 2.19)	1.00 (0.69, 1.94)	1.50 (0.75, 2.06)
	Change from baseline			
Mean±SD	-0.18±1.24	-0.14±1.21	0.19±0.79	-0.10±1.15
Median (Min-Max)	-0.25 (-0.75, 0.63)	-0.25 (-0.75, 0.69)	0.00 (-0.13, 0.31)	-0.25 (-0.75, 0.75)
P-value	0.844	0.466	0.625	0.529
CCQ mental state score				
	Baseline			
Mean±SD	2.05±1.76	2.12±1.92	1.35±1.68	2.01±1.87
Median (Min-Max)	1.75 (1.00, 2.50)	1.50 (0.13, 3.88)	0.50 (0.00, 2.50)	1.50 (0.50, 3.13)
	Month 6/EOS			
Mean±SD	1.57±1.92	1.32±1.69	1.38±1.62	1.36±1.68
Median (Min-Max)	1.00 (0.00, 2.75)	0.75 (0.00, 2.00)	0.75 (0.00, 2.38)	1.00 (0.00, 2.00)
	Change from baseline			
Mean±SD	-1.07±1.62	-0.58±1.77	0.13±1.55	-0.54±1.72
Median (Min-Max)	-1.00 (-1.25, -0.75)	-0.50 (-1.50, 0.00)	0.00 (-0.50, 1.25)	0.00 (-1.50, 0.13)
P-value	0.156	0.038*	>0.99	0.021*

*p<0.05, **p<0.001. Abbreviations: CCQ, clinical COPD questionnaire; EOS, end of study; Max, maximum; Min, minimum; SD, standard deviation.

Table S2. The change in CCQ total and domain scores between the baseline and end of study in the “Completers” dataset and its corresponding subgroups.

	Treatment naïve patients (n=4)	Add-on patients (n=34)	Switched patients (n=7)	Total (n=45)
CCQ total score				
Baseline				
Mean±SD	2.23±0.71	2.09±0.96	1.19±0.60	1.96±0.95
Median (Min-Max)	2.10 (1.60, 3.00)	1.90 (0.40, 4.00)	1.10 (0.30, 2.10)	1.80 (0.30, 4.4)
Month 6/EOS				
Mean±SD	1.35±1.06	1.67±1.18	1.26±1.03	1.58±1.13
Median (Min-Max)	1.35 (0.60, 2.10)	1.20 (0.20, 4.30)	1.10 (0.20, 3.40)	1.20 (0.20, 4.30)
Change from baseline				
Mean±SD	-1.20±0.42	-0.41±0.95	0.07±0.77	-0.36±0.93
Median (Min-Max)	-1.20 (-1.50, -0.90)	-0.30 (-2.70, 1.40)	0.10 (-1.10, 1.30)	-0.30 (-2.70, 1.40)
P-value	0.500	0.029*	0.719	0.022*
CCQ symptoms score				
Baseline				
Mean±SD	2.25±0.50	2.49±0.97	1.36±0.56	2.30±0.98
Median (Min-Max)	2.25 (1.75, 2.75)	2.25 (0.25, 4.75)	1.00 (0.74, 2.25)	2.25 (0.25, 4.75)
Month 6/EOS				
Mean±SD	1.50±0.71	1.77±1.33	1.39±0.83	1.68±1.22
Median (Min-Max)	1.50 (1.00, 2.00)	1.50 (0.00, 5.00)	1.25 (0.50, 3.00)	1.50 (0.00, 5.00)
Change from baseline				
Mean±SD	-1.00±0.35	-0.74±0.91	0.04±0.92	-0.61±0.93
Median (Min-Max)	-1.00 (-1.25, -0.75)	-0.75 (-2.50, 1.25)	0.25 (-1.25, 1.25)	-0.75 (-2.50, 1.25)
P-value	0.500	<0.001**	0.906	<0.001**
CCQ functional state score				
Baseline				
Mean±SD	1.83±1.44	1.8±1.14	1.03±0.73	1.74±1.12
Median (Min-Max)	1.00 (1.00, 3.40)	1.75 (0.00, 4.25)	1.00 (0.00, 2.25)	1.50 (0.00, 4.25)
Month 6/EOS				
Mean±SD	0.88±0.53	1.84±1.26	1.25±1.22	1.68±1.24
Median (Min-Max)	0.88 (0.50, 1.25)	1.50 (0.50, 5.50)	1.00 (0.00, 3.75)	1.50 (0.00, 5.50)
Change from baseline				
Mean±SD	-1.38±1.24	-0.07±1.03	0.21±0.85	-0.09±1.03
Median (Min-Max)	-1.38 (-2.25, -0.50)	0.00 (-2.75, 1.50)	0.00 (-0.75, 1.50)	0.00 (-2.75, 1.50)
P-value	0.500	0.721	0.625	0.613
CCQ mental state score				
Baseline				
Mean±SD	3.00±0.87	1.70±1.82	1.14±1.44	1.70±1.75
Median (Min-Max)	2.50 (2.50, 4.00)	1.00 (0.00, 6.00)	0.00 (0.00, 3.00)	1.50 (0.00, 6.00)
Month 6/EOS				
Mean±SD	2.00±2.82	1.12±1.53	1.00±1.32	1.15±1.52
Median (Min-Max)	2.00 (0.00, 4.00)	0.50 (0.00, 6.00)	0.50 (0.00, 3.50)	0.50 (0.00, 6.00)
Change from baseline				
Mean±SD	-1.25±3.89	-0.41±1.68	-0.14±1.46	-0.41±1.72
Median (Min-Max)	-0.50 (-4.00, 0.00)	0.00 (-4.00, 3.50)	0.00 (-2.0, 2.0)	0.00 (-4.00, 3.50)
P-value	0.954	0.197	0.998	0.152

*p<0.05, **p<0.001. Abbreviations: CCQ, clinical COPD questionnaire; EOS, end of study; Max, maximum; Min, minimum; SD, standard deviation.

Table S3. The change in CCQ total and domain scores between the baseline and end of study in the “Changers” dataset and its corresponding subgroups.

	Treatment naïve patients (n=4)	Add-on patients (n=19)	Switched patients (n=10)	Total (n=33)
CCQ total score				
Baseline				
Mean±SD	2.10±0.85	2.36±1.02	1.33±0.78	2.18±0.97
Median (Min-Max)	2.00 (1.00, 3.50)	2.20 (0.90, 4.50)	1.10 (0.70, 2.20)	2.00 (0.70, 4.50)
		Month 6/EOS		
Mean±SD	1.48±1.05	1.74±1.26	2.80±0.00	1.73±1.18
Median (Min-Max)	1.10 (0.30, 2.90)	1.40 (0.20, 4.20)	2.80 (2.80, 2.80)	1.40 (0.20, 4.2)
		Change from baseline		
Mean±SD	-0.38±0.44	-0.56±0.98	0.60±0.00	-0.45±0.87
Median (Min-Max)	-0.20 (-0.90, 0.10)	-0.50 (-3.00, 0.90)	0.60 (0.00, 1.20)	-0.40 (-3.00, 0.90)
P-value	0.188	0.055	0.622	0.036*
CCQ symptoms score				
Baseline				
Mean±SD	2.48±1.09	2.43±0.98	1.42±0.63	2.35±1.02
Median (Min-Max)	2.25 (1.25, 4.50)	2.50 (0.75, 4.50)	1.50 (0.75, 2.00)	2.13 (0.75, 4.50)
		Month 6/EOS		
Mean±SD	1.45±0.65	1.79±1.12	2.50±0.00	1.74±0.99
Median (Min-Max)	1.25 (0.75, 2.25)	2.00 (0.25, 4.25)	2.50 (2.50, 2.50)	2.00 (0.25, 4.25)
		Change from baseline		
Mean±SD	-0.75±0.64	-0.63±0.91	0.50±0.00	-0.61±0.85
Median (Min-Max)	-0.75 (-1.50, 0.00)	-0.50 (-3.00, 0.00)	0.50 (0.00, 1.50)	-0.50 (-3.00, 0.75)
P-value	0.125	0.019*	0.632	0.006*
CCQ functional state score				
Baseline				
Mean±SD	1.52±0.96	2.10±1.19	1.50±0.87	1.84±1.10
Median (Min-Max)	1.25 (0.25, 3.00)	1.88 (0.75, 5.50)	1.00 (1.00, 2.50)	1.75 (0.25, 5.50)
		Month 6/EOS		
Mean±SD	1.55±1.72	1.67±1.71	2.50±0.00	1.68±1.63
Median (Min-Max)	1.00 (0.00, 4.50)	1.50 (0.00, 5.25)	2.50 (2.50, 2.50)	1.25 (0.00, 5.25)
		Change from baseline		
Mean±SD	0.30±0.96	-0.29±1.57	0.00±0.00	-0.12±1.38
Median (Min-Max)	0.50 (-1.00, 1.50)	-0.75 (-2.5, 3.00)	0.00 (-1.50, 2.00)	-0.25 (-2.50, 3.00)
P-value	0.625	0.486	0.988	0.713
CCQ mental state score				
Baseline				
Mean±SD	2.50±2.18	2.75±2.04	0.83±1.04	2.48±2.05
Median (Min-Max)	2.00 (0.00, 6.00)	2.50 (0.00, 5.50)	0.50 (0.00, 2.00)	2.00 (0.00, 6.00)
		Month 6/EOS		
Mean±SD	1.40±1.85	1.77±2.00	4.00±0.00	1.79±1.94
Median (Min-Max)	1.00 (0.00, 4.50)	1.00 (0.00, 6.00)	4.00 (4.00, 4.00)	1.40 (0.00, 6.00)
		Change from baseline		
Mean±SD	-1.00±0.35	-0.96±1.95	2.00±0.00	-0.82±1.74
Median (Min-Max)	-1.00 (-1.50, -0.5)	-0.50 (-2.00, 2.00)	2.00 (1.00, 3.00)	-0.40 (-5.00, 2.00)
P-value	0.063	0.100	0.455	0.056

*p<0.05. Abbreviations: CCQ, clinical COPD questionnaire; EOS, end of study; Max, maximum; Min, minimum; SD, standard deviation.