

Table 4 Impact of pulmonary rehabilitation on selected physiological and outcome parameters pre- and post-rehabilitation for 32 patients with chronic lung diseases

Variable	All patients (n = 32)	Interstitial lung diseases (n = 11)	Bronchiectasis (n = 13)	Asthma (n = 4)	Scoliosis (n = 4)
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
6-min. walking distance (m)					
Pre-rehab.	226 (113)	179 (74)	235 (137)	295 (82)	258 (109)
Post-rehab.	339 (134)	293 (97)	350 (160)	413 (120)	358 (139)
Difference	113 (40)	114 (58)	116 (65)	118 (43)	100 (35)
P-value	< 0.001	0.006	0.061	0.157	0.301
Distance on treadmill (m)					
Pre-rehab.	120 (80)	114 (66)	135 (106)	105 (51)	99 (32)
Post-rehab.	387 (205)	371 (199)	386 (264)	358 (100)	470 (43)
Difference	268 (163)	257 (163)	251 (170)	253 (87)	370 (126)
P-value	< 0.001	0.001	0.004	0.004	< 0.001
Distance on bicycle (m)					
Pre-rehab.	1041 (440)	1031 (358)	1054 (508)	1223 (630)	845 (216)
Post-rehab.	2865 (1404)	2532 (1120)	3035 (1756)	3195 (1011)	2898 (1475)
Difference	1824 (1156)	1503 (962)	1981 (1294)	1973 (678)	2052 (799)
P-value	< 0.001	0.004	< 0.001	0.016	0.331
Distance on ergometer (m)					
Pre-rehab.	526 (154)	555 (136)	560 (179)	430 (111)	425 (100)
Post-rehab.	1392 (665)	1238 (522)	1400 (829)	1643 (528)	1540 (663)
Difference	867 (602)	683 (438)	840 (602)	1213 (438)	1115 (415)
P-value	< 0.001	< 0.001	0.002	0.004	0.016
Emergency department visits (no.)					
Pre-rehab.	2.5 (2.9)	1.3 (1.9)	3.1 (2.3)	4.5 (5.8)	1.8 (1.7)
Post-rehab.	0.9 (1.2)	0.6 (0.9)	1.2 (1.1)	1.3 (1.9)	0.8 (0.9)
Difference	-1.1 (1.7)	-0.7 (0.8)	-1.9 (1.4)	-3.3 (1.6)	-1.0 (0.4)
P-value	0.005	0.280	0.012	0.327	0.343
Outpatient department visits (days)					
Pre-rehab.	5.3 (2.1)	4.7 (2.7)	5.3 (1.8)	6.8 (1.5)	6.0 (1.4)
Post-rehab.	2.8 (0.9)	2.7 (0.6)	2.5 (0.9)	3.3 (0.9)	3.5 (1.0)
Difference	-2.6 (1.8)	-1.9 (1.6)	-2.8 (1.7)	3.5 (1.2)	-2.5 (0.9)
P-value	< 0.001	0.033	< 0.001	0.007	0.028
Short-acting bronchodilator inhalers (no.)					
Pre-rehab.	7.3 (5.1)	4.2 (3.5)	10.0 (5.8)	8.0 (1.8)	6.3 (3.1)
Post-rehab.	3.2 (2.4)	1.7 (2.0)	4.7 (2.2)	3.0 (1.4)	2.5 (1.7)
Difference	-4.1 (2.4)	-2.5 (1.8)	-5.3 (4.0)	-5.0 (1.7)	-3.6 (1.3)
P-value	< 0.001	0.492	0.005	0.005	0.078
Cumulative prednisone dose (mg)					
Pre-rehab.	117 (162)	41 (92)	143 (160)	160 (194)	179 (260)
Post-rehab.	33 (76)	21 (46)	56 (106)	25 (50)	0 (0)
Difference	-84 (126)	-25 (25)	-87 (78)	-135 (59)	-194 (92)
P-value	0.011	0.516	0.115	0.225	0.187
Antibiotic courses (no.)					
Pre-rehab.	2.0 (2.2)	2.1 (2.8)	2.2 (1.9)	2.0 (2.2)	1.3 (1.5)
Post-rehab.	0.9 (1.1)	0.8 (1.2)	1.2 (1.2)	1.0 (1.4)	0.5 (0.6)
Difference	-1.1 (1.2)	-1.3 (1.1)	-1.0 (1.4)	-1.1 (1.6)	-0.8 (0.4)
P-value	0.016	0.181	0.112	0.468	0.387

SD = standard deviation.