Supplementary Table 8: Average annual change* in lung function and symptoms domain of health status related to step count, sedentary time and moderate-to-vigorous physical activity (MVPA) at baseline (multivariable linear regression model) after excluding patients participating in a pulmonary rehabilitation program at baseline (n=4)

	Step count		MVPA		Sedentary time	
	Per 1000 increase in steps.day^{-1} Estimate (95% CI)	p-value	Per 10 minutes.day^{-1} increase Estimate (95% CI)	p-value	Per hour.day^{-1} increase Estimate (95% CI)	p-value
ΔFEV_1 (ml.year^{-1})	7.00 (2.2 to 11.8)	<0.01	5.13 (1.53 to 8.28)	<0.01	-14 (-25 to -2.4)	0.02
ΔFVC (ml.year^{-1})	8.48 (0.29 to 16.7)	0.04	4.99 (-1.35 to 11.33)	0.12	-21 (-42 to -0.4)	0.046
ΔDL_{co} (ml/min/mmHg.year^{-1})	0.10 (0.06 to 0.14)	0.04	0.03 (-0.05 to 0.10)	0.49	-0.25 (-0.5 to 0.01)	0.06
$\Delta SGRQ_{symptoms}$score (points.year^{-1})	-0.35 (-0.67 to -0.02)	0.03	-0.20 (-0.45 to 0.05)	0.12	0.81 (0.0 to 1.6)	0.04

MVPA = moderate-to-vigorous physical activity, FEV_1 = forced expiratory volume in 1 second, FVC = forced vital capacity, DL_{co} = diffusion capacity of the lung carbon monoxide, SGRQ = Saint George's respiratory questionnaire. Analyses are bases on 109 patients (step count and MVPA) or 108 patients (sedentary time).

* Negative values represent a decline in the outcome measure.

† Every cell is a single multivariable model adjusted for baseline value of the corresponding outcome and (i) age, sex, exacerbation history (≥1 / 0), BMI, Charlson index, smoking status (current / not current), pack-years and duration of daylight for lung function variables, or (ii) age, sex, exacerbation history (≥1 / 0), smoking status, FEV_1% predicted, 6MWD and duration of daylight for SGRQ. The full list of potential confounders included: age, sex, education, marital status, work status, baseline smoking status, smoking history expressed as pack-years, medication (including long acting bronchodilators, inhaled corticosteroids and a combined inhaled therapy), diet (including vegetables, meat and fruit intake), Charlson index, BMI, FFM, FFMi, mMRC, COPD exacerbation history, FEV_1 % predicted, hand grip force, 6MWD and duration of daylight. Criteria for keeping them in the final model are detailed in the methods (complete version)