Supplement 2 for

Efficacy and Safety of Treamid in the Rehabilitation of Patients After COVID-19 Pneumonia: a phase 2, randomized, double-blind, placebo-controlled trial

Evgeny Bazdyrev¹, , Maria Panova², Maria Brachs³, Elena Smolyarchuk⁴, Daria Tsygankova¹, Liudmila Gofman⁵, Yana Abdyusheva², Fedor Novikov²

- Research Institute for Complex Issues of Cardiovascular Diseases, 6, Sosnoviy Blvd., 650002 Kemerovo, Russia
- PHARMENTERPRISES LLC, Skolkovo Innovation Center, Bolshoi Blvd., 42 (1), 143026 Moscow, Russia; m.panova@pharmenterprises.ru (M.P.); fnovikov@pharmenterprises.ru (F.N.); ya.abdyusheva@pharmenterprises.ru (Y.A.);
- Treamid Therapeutics GmbH, c/o CoLaborator (Bayer), Building S141, Muellerstr. 178, 13353 Berlin, Germany
- I.M. Sechenov First Moscow State Medical University (Sechenov University). Trubetskaya ul. 8, Moscow, 119991 Russia
- Kemerovo Regional Clinical Hospital named after S.V. Belyaev, 22, Oktyabskiy pr., 650066, Kemerovo, Russia

Table of contents

A	ppendixes	3
	Appendix 1 Assessment of dyspnea by the mMRC scale (modified medical research council)	3
	Appendix 2 Modified Borg Dyspnea Scale	4
	Appendix 3 King's Brief Interstitial Lung Disease Questionnaire (KBILD)	5
	Appendix 4 Chest computed tomography (CT)	7
	Appendix 5 Calculation of the percentage of predicted normal values	8
	Appendix 6 Reasons for patients' exclusion from study populations	9
	Appendix 7. Eight linear models that considered different variants of interaction between fixed factors	.10
	Appendix 8. Parameters of selected linear models for a change in modified Borg score, TLC and lung damage	.11
	Appendix 9. Results of evaluated adjusted means for selected models for change in modified Borg score, TL and lung damage	
	Appendix 10. Linear models diagnostics for change in modified Borg score, TLC and lung damage	.13
	Appendix 11. Linear models for change in modified dyspnea score including baseline value of lung damage (initCT), DLCO (initDLCO) and 6MWD (init6MWD) as covariate and corresponding Treamid superiority in women according to least-squares means differences between Treamid and placebo groups adjusted to two different baseline values (low and high).	n
	Appendix 12. Treamid superiority in change in lung damage in women.	.15
	Appendix 13. Smoking history for Treamid and placebo groups.	.16
	Appendix 14. Cardiovascular diseases (hypertension) for Treamid and placebo groups	.17
	Appendix 15. Difference in analyzed parameters change from baseline to week 4 between patients who achieved and did not achieve clinical benefits	.18
	Appendix 16. Exploratory analysis of age, hospitalization time and time after the onset of the first symptoms.	.20
	Appendix 17. Rationale for study drug dose selection based on PK/PD models	.22
Fi	gures	.25
	Figure 1. Correlation of change in a) lung damage and b) TLC with change in FVC in women	.25
T	ables	.26
	Table 1. Demographics and baseline clinical characteristics of PPS population by study cohort	.26
	Table 2. The frequency (n (%)) of clinically significant improvement in DLCO after 4-week treatment period in subgroup of patients with gas exchange impairment at baseline.	
	Table 3. Means of baseline values and change for 4 weeks of therapy for ITT population, women, and patient with baseline DLCO < 80%.	
	Table 4. List of protocol deviations	.20
	References	67

Appendixes

Appendix S1 Assessment of dyspnea by the mMRC scale (modified medical research council) [1]

Grade	Description
0	I only get breathless with strenuous exercise
1	I get short of breath when hurrying on level ground or walking up a slight hill
2	On level ground, I walk slower than people of the same age because of breathlessness, or have to stop for breath when walking at my own pace
3	I stop for breath after walking about 100 yards or after a few minutes on level ground
4	I am too breathless to leave the house or I am breathless when dressing/undressing

Appendix S2 Modified Borg Dyspnea Scale [2]

Rating	Shortness of breath
0	Nothing at all
0.5	Very, very slight (just noticeable)
1	Very slight
2	Slight
3	Moderate
4	Somewhat severe
5	Severe
6	
7	Very severe
8	
9	Very, very severe (almost maximal)
10	Maximal

Appendix S3 King's Brief Interstitial Lung Disease Questionnaire (KBILD) [3]

This questionnaire is designed to assess the impact of your lung disease on various aspects of your life. Please circle the response that best applies to you for each question.

	<u> </u>	of your lung disease on variou		ease circle the response th	at best applies to you for ea	ch question.				
·		mbing stairs or walking up a								
1. Every time	2. Most times	3. Several Times	4. Some times	5. Occasionally	6. Rarely	7. Never				
2. In the last 2 weeks, because of my lung condition, my chest has felt tight.										
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
3. In the last 2 weeks	3. In the last 2 weeks have you worried about the seriousness of your lung complaint?									
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
4. In the last 2 weeks	•	ings that make you breathle	ess?							
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
	have you felt in control of	• 0								
1. None of the time	2. Hardly any of the time	3. A little of the time	4. Some of the time	5. A good bit of the time	6. Most of the time	7. All of the time				
· ·	· · · · ·	made you feel fed up or dow								
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
	- U	athe, also known as 'air hun	U .							
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
	my lung condition has ma									
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
9. In the last 2 weeks,	• •	ienced 'wheeze' or whistling	•							
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
		have you felt your lung dise	0 0							
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
		interfered with your job or o	-							
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
	<u> </u>	ung complaint to get worse?								
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
	, ,	g condition limited you carry	0 0, 1	, 0						
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
	• •	made you think more about								
1. All of the time	2. Most of the time	3. A good bit of the time	4. Some of the time	5. A little of the time	6. Hardly any of the time	7. None of the time				
•	y worse off because of you	ŭ .								
1. A significant amount	2. A large amount	3. A considerable amount	4.A reasonable amount	5. A small amount	6. Hardly at all	7. Not at all				

Appendix S4 Chest computed tomography (CT)

The assessment of lung damage was performed in accordance with the classification according to the degree of recorded changes.

Chest computer tomography							
Chest CT Score	Ground glass	Consolidation	Signs of viral pneumonia	Involvement of the lung parenchyma, %			
CT 0	No	No	No (The norm and the absence of CT signs of viral pneumonia against a typical clinical pattern and a relevant epidemiological history)	No			
Yes no, single small ones			The absence of CT signs against a typical clinical pattern and a relevant epidemiological history Single areas of small size reticular changes	< 25			
CT 2 Yes yes, single		yes, single	Single areas of small size reticular changes, can be reverse "halo"	25-49			
Yes yes, possible solid		• •	Areas of reticular changes, can be reverse "halo", A symptom of an air bronchogram is possible Minimal hydrothorax not associated with pneumonia	50-74			
CT 4	Yes	yes, solid predominant	Hydrothorax (bilateral, predominates on the left) Areas of reticular changes, can be reverse "halo", Symptom of air bronchogram Hydrothorax mainly on the left	≥ 75%			

Image recording, description, and CT conclusion shall be evaluated by the Investigator. Changes in the CT image shall be registered in accordance with the procedure in the primary documentation and in the eCRF.

Appendix S5 Calculation of the percentage of predicted normal values

Pulmonary function	Equation
DLCO ¹	Men : 0.142*Height – 0.232*Age + 16.30 [4]
DECO	Women : 0.219*Height – 0.115*Age – 5.97 [4]
FVC ²	Men : -0.1933 + 0.00064*Age - 0.000269*Age ² + 0.00018642*Height ² [5]
rvc	Women : -0.3560 + 0.01870*Age - 0.000382*Age ² + 0.00014815*Height [5]
FEV1 ³	Men : 0.5536 – 0.01303*Age – 0.000172*Age ² + 0.00014098*Height [6]
LE VI-	Women : 0.4333 - 0.00361*Age - 0.000194*Age ² + 0.00011496*Height [6]
TLC ⁴	Men : exp(2.2633*log(Height)+0.00585*Age-7.228*10 ⁻⁵ *Age ² -9.9529) [7]
ILC	Women : exp(2.246*log(Height)+0.0064*Age-9.386*10 ⁻⁵ *Age ^{2-9.99}) [7]
FRC ⁵	Men : 0.0234*Height + 0.00009*Age – 0.0109 [8]
rkc	Women : 0.0224*Height + 0.00001*Age – 0.01 [8]

¹**DLCO**: diffusing capacity for carbon monoxide

²FVC: forced vital capacity

³FEV1: forced expiratory volume in one second

⁴TLC: total lung capacity

⁵**FRC**: functional residual capacity

Appendix S6 Reasons for patients' exclusion from study populations

Patient	Group	Sex	Age	RAN ¹	SAF ²	FAS ³	PPS ⁴	Reason for exclusion	
09-02	Placebo	M	60	Yes ⁵	Yes ⁵	No ⁶	No ⁶	No efficacy data after baseline.	
15-13	Placebo	M	61	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶	CT data were erroneously entered at the screening visit. Instead of CT2, CT1 (15-13) was introduced. Instead of CT3, CT1 (15-14) was introduced.	
15-14	Placebo	F	68	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶	Because of this, an incorrect stratification was carried out.	
18-01	Placebo	M	56	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶		
18-02	Placebo	M	65	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶	Incorrectly performed 6-minute walk tests on all visits (patients were stopped after walking a distance of 42 meters). The researcher did not fully	
18-03	Treamid	M	57	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶	understand how to perform this test and did not contact the monitor for clarification.	
18-04	Placebo	M	69	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶		
11-17	Treamid	F	57	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶	Serious adverse event: ulcerative keratitis of the left eye.	
15-02	Treamid	F	60	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶	Spirometry was performed on B1 as part of body plethysmography, followed by spirometry performed on a spirometer in the center.	
15-15	Treamid	F	58	Yes ⁵	Yes ⁵	Yes ⁵	No ⁶	The patient had an AE of ARVI on 25.10.2020, spirometry was performed on V4 on 26.10.20, and body plethysmography was performed on 30.10. Spirometry was performed on B5 dated 11.03.2020. The protocol states that in case of upper respiratory disease, spirometry can be performed only 7 days after the last symptoms of the disease.	

¹**RAN**: all randomised patients;

²SAF: Safety Analysis Set;

³FAS: Full Analysis Set;

⁴**PPS**: Per-protocol Set.

⁵**Yes**: the patient is included in the set

⁶No: the patient is not included in the set

Appendix 7. Eight linear models that considered different variants of interaction between fixed factors (Group – group of therapy, Sex – patient sex) and covariate (init – baseline values of corresponding parameter) for a change in a) modified Borg dyspnea scale, b) TLC and c) lung damage as a predictive value. Models marked in bold (with Delta_AICc < 1) were used for the adjusted means calculations. The selection was made based on AICc (Akaike information criterion, corrected for small sample sizes). K – number of parameters (including intercept) + 1, using for AIC calculation. Delta_AICc – difference between AIC of corresponding model and the model with minimal AIC value. AIC weight can be interpreted as weight of evidence in favor of a given model being the best one for the given candidate model set. n – number of patients. ":" – interaction term without main effect, "*" – interaction term with main effect.

a) Change in dyspnea modified Borg scale (n = 55)

Formular	K	AICc	Delta_AICc	AIC weight
init:Group+init:Sex+Group:Sex	6	99.57	0	0.26
init:Sex+Group:Sex	6	99.88	0.31	0.22
init:Group+Group:Sex	6	99.93	0.36	0.21
init+Group*Sex	6	100.45	0.88	0.17
init:Sex+Group*Sex	7	102.47	2.9	0.06
init:Group+Group*Sex	7	102.49	2.92	0.06
init:Group+init:Sex+Group*Sex	8	104.75	5.18	0.02
init*Group*Sex	9	107.19	7.62	0.01

b) Change in TLC, % pred. (n = 58)

Formular	K	AICc	Delta_AICc	AIC weight	AIC (median regression)
init:Group+Group:Sex	6	441.34	0	0.23	431.29
init:Group+init:Sex+Group:Sex	6	441.56	0.23	0.2	431.25
init:Group+Group*Sex	7	441.93	0.59	0.17	425.87
init+Group*Sex	6	442.46	1.13	0.13	432.22
init:Sex+Group:Sex	6	442.68	1.34	0.12	432.17
init*Group*Sex	9	443.29	1.95	0.08	422.97
init:Group+init:Sex+Group*Sex	8	444.63	3.29	0.04	425.57
init:Sex+Group*Sex	7	445.05	3.71	0.04	434.16

c) Change in lung damage, % (n = 58)

Formular	K	AICc	Delta_AICc	AIC weight
init+Group*Sex	6	455.59	0	0.31
init:Group+Group*Sex	7	456.19	0.6	0.23
init:Sex+Group:Sex	6	456.41	0.82	0.2
init:Sex+Group*Sex	7	458.18	2.59	0.08
init:Group+init:Sex+Group*Sex	8	458.83	3.23	0.06
init:Group+Group:Sex	6	459.26	3.67	0.05
init:Group+init:Sex+Group:Sex	6	459.37	3.78	0.05
init*Group*Sex	9	460.5	4.91	0.03

Appendix S8. Parameters of selected linear models for a change in a) modified Borg score, b) TLC and c) lung damage. Group – group of therapy, Sex – patient sex, init – baseline value of corresponding parameter.

a) Change in modified Borg score

Formular	R2 (R2adj), %	F (DF), p value	Coefficient of Group:Sex interaction, p value
init:Group+init:Sex+Group:Sex	57.0 (53.6)	16.6 (4,50), < 0.001	-0.98, 0.001**
init:Sex+Group:Sex	56.8 (53.3)	16.4 (4,50), < 0.001	-0.63, 0.002**
init:Group+Group:Sex	56.8 (53.3)	16.4 (4,50), < 0.001	-0.79, < 0.001***
init+Group*Sex	56.3 (52.9)	16.1 (4,50), < 0.001	-0.95, 0.004**

b) TLC, % pred.

Formular	R2 (R2adj), %	F (DF), p value	Coefficient of Group:Sex interaction, p value
init:Group+Group*Sex	24.3 (17.0)	3.33 (5,52), 0.011	14.36, 0.012*
init:Group+Group:Sex	21.6 (15.7)	3.65 (4,53), 0.011	4.09, 0.301
init:Group+init:Sex+Group:Sex	21.3 (15.4)	3.59 (4,53), 0.012	15.07, 0.008**

c) Lung damage, %

Formular	R2 (R2adj), %	F (DF), p value	Coefficient of Group:Sex interaction, p value
init:Group+Group*Sex	22.9 (15.5)	3.09 (5,52), 0.016	-15.50, 0.015*
init+Group*Sex	20.2 (14.2)	3.36 (4,53), 0.016	-14.65, 0.022*
init:Sex+Group:Sex	19.1 (13.0)	3.12 (4,53), 0.022	-4.60, 0.240

Appendix 9. Results of evaluated adjusted means for selected models for change in a) modified Borg score, b) TLC and c) lung damage. Group – group of therapy, Sex – patient sex, init – baseline value of corresponding parameter.

a) Change in modified Borg scale

model	R2 (R2adj), %	Placebo [95% CI]	Treamid [95% CI]	Treamid superiority [95% CI]	p-value
init:Group+init:Sex+Group:Sex	57.0 (53.6)	-0.46 [-0.73; -0.19]	-1.11 [-1.36; -0.85]	0.64 [0.27; 1.02]	0.001**
init:Sex+Group:Sex	56.8 (53.3)	-0.46 [-0.73; -0.19]	-1.08 [-1.34; -0.83]	0.63 [0.25; 1.00]	0.002**
init:Group+Group:Sex	56.8 (53.3)	-0.46 [-0.76; -0.16]	-1.10 [-1.36; -0.84]	0.64 [0.25; 1.04]	0.002**
init+Group*Sex	56.3 (52.9)	-0.47 [-0.77; -0.16]	-1.08 [-1.34; -0.82]	0.61 [0.22; 1.01]	0.003**

b) Change in TLC, % pred.

Linear models:

model	R2 (R2adj), %	Placebo [95% CI]	Treamid [95% CI]	Treamid superiority [95% CI]	p-value
init:Group+Group:Sex	21.6 (15.7)	-0.42 [-5.92; 5.08]	7.72 [2.92; 12.52]	8.14 [0.79; 15.50]	0.031*
init:Group+init:Sex+Group:Sex	21.3 (15.4)	-0.06 [-5.43; 5.31]	7.62 [2.82; 12.43]	7.69 [0.46; 14.91]	0.038*
init:Group+Group*Sex	24.3 (17.0)	-0.94 [-6.46; 4.58]	7.38 [2.59; 12.17]	8.32 [1.01; 15.63]	0.026*
Median regression:					
model	pseudo-R2, %	Placebo [95% CI]	Treamid [95% CI]	Treamid superiority [95% CI]	p-value
Init*Group*Sex	21.4	-3.96 [-8.49; 0.56]	7.07 [3.47; 10.68]	11.04 [5.25; 16.82]	<0.001***
init:Group+init:Sex+Group*Sex	18.2	-1.73 [-5.43; 1.98]	7.61 [0.74; 14.48]	9.34 [1.66; 17.02]	0.018*
init:Group+Group*Sex	16.5	-2.39 [-6.11; 1.33]	6.19 [1.01; 11.37]	8.58 [2.20; 14.95]	0.009**

c) Change in lung damage, %

model	R2 (R2adj), %	Placebo [95% CI]	Treamid [95% CI]	Treamid superiority [95% CI]	p-value
init+Group*Sex	20.2 (14.2)	-11.29 [-17.70; -4.91]	-17.20 [-22.50; -11.94]	5.91 [-2.35; 14.18]	0.157
init:Group+Group*Sex	22.9 (15.5)	-10.89 [-17.30; -4.53]	-17.25 [-22.50; -12.03]	6.36 [-1.88; 14.59]	0.127
init:Sex+Group:Sex	19.1 (13.0)	-12.59 [-18.30; -6.89]	-17.19 [-22.50; -11.89]	4.60 [-3.16; 12.35]	0.240

Appendix 10. Linear models diagnostics for change in a) modified Borg score, b) TLC and c) lung damage. The following parameters are given: maximum variance inflation factor (VIF) value as a measure of collinearity, normality of residuals according to Shapiro–Wilk test, maximum value of Cook's distance as a measure of the influence of a data point and the equality of variance between treatment groups according to F-test.

a) Change in modified Borg score

Formular	Max. VIF value	Normality of residuals (Shapiro–Wilk test)	Max. Cook's distance	Equality of variance F (p-value)
init:Group+init:Sex+Group:Sex	1.82	W = 0.978, p = 0.400	0.29	1.82 (0.130)
init:Sex+Group:Sex	1.20	W = 0.967, p = 0.129	0.27	1.78 (0.143)
init:Group+Group:Sex	1.25	W = 0.984, p = 0.684	0.19	1.77 (0.147)
init+Group*Sex	3.96	W = 0.974, p = 0.289	0.15	1.71 (0.171)

b) TLC, % pred.

Formular	Max. VIF value	Normality of residuals (Shapiro–Wilk test)	Max. Cook's distance	Equality of variance F (p-value)
init:Group+Group*Sex	7.42	W = 0.931, p = 0.003	0.16	2.22 (0.040)
init:Group+Group:Sex	1.25	W = 0.938, p = 0.005	0.18	2.17 (0.047)
init:Group+init:Sex+Group:Sex	1.92	W = 0.940, p = 0.006	0.25	2.40 (0.025)

c) Lung damage, %

Formular	Max. VIF value	Normality of residuals (Shapiro–Wilk test)	Max. Cook's distance	Equality of variance F (p-value)
init:Group+Group*Sex	2.15	W = 0.985, p = 0.714	0.15	1.70 (0.166)
init+Group*Sex	3.75	W = 0.979, p = 0.398	0.16	1.68 (0.175)
init:Sex+Group:Sex	1.11	W = 0.983, p = 0.590	0.24	1.63 (0.202)

Appendix S11. Linear models for change in modified dyspnea score including baseline value of lung damage (initCT), DLCO (initDLCO) and 6MWD (init6MWD) as covariate and corresponding Treamid superiority in women according to least-squares means differences between Treamid and placebo groups adjusted to two different baseline values (low and high).

Baseline parameter	Formular	Treamid superiority in women [95% CI], p-value
Lung	initCT:Group + Group:Sex	initCT=10%: 0.58 [0.01, 1.16], 0.048*
damage, %	inite 1:Group + Group:Sex	initCT=50%: 0.74 [0.13, 1.35], 0.019*
DLCO, %	initDLCO:Group+initDLCO:Sex+Group:Sex	initDLCO=100%: 0.62 [0.04, 1.19], 0.036*
pred.	initibleO.Group+initibleO.sex+Group.sex	initDLCO=60%: 0.66 [0.13, 1.20], 0.016*
6MWD, %	init6MWD:Group + Group:Sov	init6MWD=100%: 0.61 [0.07, 1.15], 0.027*
pred.	init6MWD:Group + Group:Sex	init6MWD=60%: 0.69 [0.16, 1.23], 0.012*

Appendix S12. Treamid superiority in change in lung damage in women (least-squares means differences between Treamid and placebo groups with 95% CI of difference and corresponding p-values) adjusted to different baseline lung damage according to init:Group+Group*Sex linear model (for the model parameter see Appendix 8, c).

Baseline lung damage, %	Treamid superiority [95% CI]	p-value
10	2.7 [-6.7, 12.2]	0.564
20	4.8 [-3.6, 13.1]	0.261
30	6.8 [-1.6, 15.1]	0.109
40	8.8 [-0.5, 18.0]	0.063
50	10.8 [-0.2, 21.7]	0.053

Appendix S13. Smoking history for Treamid and placebo groups.

There were no statistically significant differences in smoking history between the cohorts (Table S13.1). Most patients (81%) never smoked. Only two patients in the placebo group were smokers.

Table S13.1. Smoking history of **ITT** population.

Smoking history	Treamid (n = 29)	Placebo (n = 30)	P value	Total (n = 59)
Current	0 (0.0%)	2 (6.6%)	0.492 (f)	2 (3.4%)
Former (≥ 10 pack-years)	2 (6.9%)	2 (6.6%)	1.000 (f)	4 (6.8%)
Former (< 10 pack-years)	2 (6.9%)	3 (10.0%)	1.000 (f)	5 (8.4%)
Never	25 (86.2%)	23 (76.8%)	0.347 (c)	48 (81.4%)

^aIn brackets: c, chi-squared test; f, Fisher's exact test.

For non-smokers, the clinically significant improvement at the primary endpoint was observed in the Treamid group compared to placebo in ITT and PPS populations (Table S13.2). This is consistent with the result obtained for whole study cohort.

Table S13.2. Primary efficacy outcome for non-smokers.

	Primary efficacy outcome (≥10% increase in FVC or [5–10% increase in FVC and						
	≥15% incre	≥15% increase in DLCO])					
mITT	Placebo : 5/28 (18%)	Treamid : 12/29 (41%)					
шпп	p = 0	$p = 0.052 (\chi^2)$					
	Placebo : 4/24 (17%)	Treamid : 11/25 (44%)					
PPS	p = 0	$038 (\chi^2)$					

Appendix S14. Cardiovascular diseases (hypertension) for Treamid and placebo groups. Approximately one half of the randomized patients had a history of hypertension. However, Stage 3 hypertension was diagnosed only in two patients in the placebo group (Table S14.1).

Table S14.1. Hypertension in **ITT** population.

Hypertension	Treamid (n = 29)	Placebo (n = 30)	P value ^a	Total (n = 59)
No	17 (58.62%)	11 (36.7%)	0.091 (c)	28 (47%)
Stage 1	7 (24.14%)	13 (43.3%)	0.119 (c)	20 (34%)
Stage 2	5 (17.24%)	4 (13.3%)	0.731 (f)	9 (15%)

^aIn brackets: c, chi-squared test; f, Fisher's exact test.

After exclusion of Stage 3 patients, the clinically significant improvement of the primary endpoint was observed in the Treamid group compared to placebo in ITT and PPS populations (Table S14.2). The effect was statistically significant for PPS population and «almost significant» for mITT.

Table S14.2. Primary efficacy outcome excluding patients with hypertension stage 3.

	Primary efficacy outcome (≥10% increase in FVC or [5–10% increase in FVC				
	and ≥15% increase in DLCO])				
mITT	Placebo : 5/28 (18%)	Treamid : 12/29 (41%)			
IIII I	$p = 0.052 (\chi^2)$				
222	Placebo : 4/24 (17%)	Treamid : 11/25 (44%)			
PPS	ŗ	$\rho = 0.038 \ (\chi^2)$			

Appendix S15. Difference in analyzed parameters change from baseline to week 4 between patients who achieved and did not achieve clinical benefits.

Table S15.1 Difference in analyzed parameters change from baseline to week 4 between patients from **mITT** population who achieved (responders) and did not achieve (non-responders) clinical benefits from treatment (M \pm SD or n (%)).

Parameter	Change from baseline to week 4		
rarameter	Responders	Non-responders	P value ^a
Number of patients	17	42	
Age (year)	56 ± 11	55 ± 11	0.839(t)
Male, n (%)	7 (41.2)	19 (45.2)	0.776 (c)
BMI (kg/m^2)	27.4 ± 4.0	28.5 ± 4.9	0.415 (t)
PneumDays	37 ± 17	43 ± 14	0.183 (w)
SympDays	44 ± 16	48 ± 14	0.421 (w)
Hospitalization time (day)	13 ± 5	12 ± 8	0.906 (w)
6MWD (m)	63.1 ± 55.3	79.8 ± 66.6	0.650 (w)
6MWD (%, predicted) ^a	17.7 ± 17.2	21.6 ± 21.1	0.674(w)
Borg scale (score)	-0.8 ± 0.5	-0.6 ± 0.9	0.500 (w)
mMRC scale (score)	-1.2 ± 0.4	-1.0 ± 0.6	0.293 (w)
KBILD questionnaire (total score)	12.1 ± 6.3	13.0 ± 9.5	0.763 (w)
Breathlessness and activities	15.1 ± 8.5	17.7 ± 12.4	0.362 (w)
Chest symptoms	20.2 ± 13.2	20.1 ± 16.5	0.873 (w)
Psychological symptoms	14.0 ± 8.0	15.2 ± 12.9	0.722 (t)
Pulmonary function:			
FEV1 (l)	0.3 ± 0.3	0.0 ± 0.3	<0.001 (w)
FVC (I)	0.5 ± 0.3	0.0 ± 0.2	<0.001 (t)
FEV1/FVC, %	-2.8 ± 4.9	2.2 ± 11.5	0.061 (w)
TLC (I)	0.5 ± 0.4	0.2 ± 0.7	0.043 (w)
FRC (1)	0.0 ± 0.4	0.1 ± 0.6	0.969(w)
DLCO (mmol/min/kPa)	2.3 ± 2.7	1.5 ± 2.2	0.286 (t)
Pulmonary function (%, predicted) ^a :			
FEV1	10.9 ± 11.1	2.1 ± 15.3	0.001 (w)
FVC	14.7 ± 6.9	-0.2 ± 5.9	<0.001 (t)
TLC	8.7 ± 9.6	4.8 ± 11.5	0.043 (w)
FRC	0.2 ± 14.5	2.2 ± 17.1	0.977(w)
DLCO	12.9 ± 13.4	9.0 ± 12.6	0.096 (w)
Lung damage, %	-17.4 ± 11.1	-12.8 ± 12.7	0.131 (w)
CT score:			
Increase or no change	4 (23.5)	14 (33)	
Decrease	13 (76.5)	28 (67)	0.459 (c)

^aData are given in relation to baseline level. Data in bold indicates significant p value (< 0.05).

^aTest is put in brackets: c – Chi-squared test, t – Student's t-test, u – Mann–Whitney test.

Table S15.2. Difference in analyzed parameters change from baseline to week 4 between patients from **Treamid group** who achieved (responders) and did not achieve (non-responders) clinical benefits from treatment ($M \pm SD$ or n (%)).

Number of patients	Parameter	Change from	Change from baseline to week 4		
$\begin{array}{c} {\rm Age \ (year)} & 55.2 \pm 10.7 & 53.5 \pm 9.9 & 0.665 \ (t) \\ {\rm Male, n \ (\%)} & 4 \ (33) & 6 \ (35) & 1.000 \ (f) \\ {\rm BMI \ (kg/m^2)} & 28.0 \pm 3.8 & 28.9 \pm 5.7 & 0.631 \ (t) \\ {\rm PneumDays} & 39.4 \pm 16.2 & 43.9 \pm 10.6 & 0.378 \ (t) \\ {\rm SympDays} & 47.2 \pm 14.2 & 49.3 \pm 10.2 & 0.655 \ (t) \\ {\rm Hospitalization \ time \ (day)} & 13.8 \pm 5.0 & 11.2 \pm 8.7 & 0.362 \ (t) \\ {\rm 6MWD \ (m)} & 51.4 \pm 54.3 & 96.2 \pm 82.8 & 0.221 \ (w) \\ {\rm 6MWD \ (\%)}, \ {\rm predicted})^a & 14.7 \pm 16.8 & 25.6 \pm 26.1 & 0.404 \ (w) \\ {\rm Borg \ scale \ (score)} & -1.0 \pm 0.4 & -0.9 \pm 0.9 & 1.000 \ (w) \\ {\rm mMRC \ scale \ (score)} & -1.2 \pm 0.4 & -1.1 \pm 0.6 & 0.887 \ (w) \\ {\rm KBILD \ questionnaire \ (total \ score)} & 12.7 \pm 6.6 & 14.5 \pm 7.5 & 0.522 \ (t) \\ {\rm Breathlessness \ and \ activities} & 16.2 \pm 9.2 & 18.3 \pm 9.1 & 0.560 \ (t) \\ {\rm Chest \ symptoms} & 22.2 \pm 11.8 & 22.0 \pm 19.8 & 0.548 \ (w) \\ {\rm Psychological \ symptoms} & 14.2 \pm 8.3 & 18.5 \pm 10.4 & 0.252 \ (t) \\ {\rm Pulmonary \ function:} & & & & & & & & & & & & & & & & & & &$	rarameter	Responders	Non-responders	P value ^a	
$\begin{array}{c} {\rm Age \ (year)} & 55.2 \pm 10.7 & 53.5 \pm 9.9 & 0.665 \ (t) \\ {\rm Male, n \ (\%)} & 4 \ (33) & 6 \ (35) & 1.000 \ (f) \\ {\rm BMI \ (kg/m^2)} & 28.0 \pm 3.8 & 28.9 \pm 5.7 & 0.631 \ (t) \\ {\rm PneumDays} & 39.4 \pm 16.2 & 43.9 \pm 10.6 & 0.378 \ (t) \\ {\rm SympDays} & 47.2 \pm 14.2 & 49.3 \pm 10.2 & 0.655 \ (t) \\ {\rm Hospitalization \ time \ (day)} & 13.8 \pm 5.0 & 11.2 \pm 8.7 & 0.362 \ (t) \\ {\rm 6MWD \ (m)} & 51.4 \pm 54.3 & 96.2 \pm 82.8 & 0.221 \ (w) \\ {\rm 6MWD \ (\%)}, \ {\rm predicted})^a & 14.7 \pm 16.8 & 25.6 \pm 26.1 & 0.404 \ (w) \\ {\rm Borg \ scale \ (score)} & -1.0 \pm 0.4 & -0.9 \pm 0.9 & 1.000 \ (w) \\ {\rm mMRC \ scale \ (score)} & -1.2 \pm 0.4 & -1.1 \pm 0.6 & 0.887 \ (w) \\ {\rm KBILD \ questionnaire \ (total \ score)} & 12.7 \pm 6.6 & 14.5 \pm 7.5 & 0.522 \ (t) \\ {\rm Breathlessness \ and \ activities} & 16.2 \pm 9.2 & 18.3 \pm 9.1 & 0.560 \ (t) \\ {\rm Chest \ symptoms} & 22.2 \pm 11.8 & 22.0 \pm 19.8 & 0.548 \ (w) \\ {\rm Psychological \ symptoms} & 14.2 \pm 8.3 & 18.5 \pm 10.4 & 0.252 \ (t) \\ {\rm Pulmonary \ function:} & & & & & & & & & & & & & & & & & & &$	Number of patients	12	17		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		55.2 ± 10.7	53.5 ± 9.9	0.665(t)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Male, n (%)	4 (33)	6 (35)	1.000 (f)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	BMI (kg/m^2)	28.0 ± 3.8	28.9 ± 5.7	0.631 (t)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	PneumDays	39.4 ± 16.2	43.9 ± 10.6	0.378(t)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	SympDays	47.2 ± 14.2	49.3 ± 10.2	0.655(t)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Hospitalization time (day)	13.8 ± 5.0	11.2 ± 8.7	0.362 (t)	
Borg scale (score) -1.0 ± 0.4 -0.9 ± 0.9 1.000 (w) mMRC scale (score) -1.2 ± 0.4 -1.1 ± 0.6 0.887 (w) KBILD questionnaire (total score) 12.7 ± 6.6 14.5 ± 7.5 0.522 (t) Breathlessness and activities 16.2 ± 9.2 18.3 ± 9.1 0.560 (t) Chest symptoms 22.2 ± 11.8 22.0 ± 19.8 0.548 (w) Psychological symptoms 14.2 ± 8.3 18.5 ± 10.4 0.252 (t) Pulmonary function: $80.00000000000000000000000000000000000$	6MWD (m)	51.4 ± 54.3	96.2 ± 82.8	0.221 (w)	
mMRC scale (score) -1.2 ± 0.4 -1.1 ± 0.6 0.887 (w) KBILD questionnaire (total score) 12.7 ± 6.6 14.5 ± 7.5 0.522 (t) Breathlessness and activities 16.2 ± 9.2 18.3 ± 9.1 0.560 (t) Chest symptoms 22.2 ± 11.8 22.0 ± 19.8 0.548 (w) Psychological symptoms 14.2 ± 8.3 18.5 ± 10.4 0.252 (t) Pulmonary function: $80.00000000000000000000000000000000000$	6MWD (%, predicted) ^a	14.7 ± 16.8	25.6 ± 26.1	0.404 (w)	
KBILD questionnaire (total score) 12.7 ± 6.6 14.5 ± 7.5 0.522 (t) Breathlessness and activities 16.2 ± 9.2 18.3 ± 9.1 0.560 (t) Chest symptoms 22.2 ± 11.8 22.0 ± 19.8 0.548 (w) Psychological symptoms 14.2 ± 8.3 18.5 ± 10.4 0.252 (t) Pulmonary function: FEV1 (I) 0.2 ± 0.2 0.1 ± 0.4 0.012 (w) FEV1/FVC, % -2.4 ± 3.7 5.9 ± 17.3 0.037 (w) TLC (I) 0.5 ± 0.4 0.2 ± 0.5 0.189 (t) FRC (I) 0.1 ± 0.4 0.0 ± 0.5 0.918 (t) DLCO (mmol/min/kPa) 2.6 ± 2.8 1.5 ± 2.0 0.264 (t) Pulmonary function (%, predicted)a: FEV1 9.2 ± 9.6 3.8 ± 24.0 0.007 (w) FVC 12.2 ± 6.2 -2.2 ± 7.0 <0.001 (w) TLC 9.1 ± 8.6 4.7 ± 9.0 0.110 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 $7.5 \pm $	Borg scale (score)	-1.0 ± 0.4	-0.9 ± 0.9	1.000 (w)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	mMRC scale (score)	-1.2 ± 0.4	-1.1 ± 0.6	0.887 (w)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	KBILD questionnaire (total score)	12.7 ± 6.6	14.5 ± 7.5	0.522 (t)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Breathlessness and activities	16.2 ± 9.2	18.3 ± 9.1	0.560(t)	
Pulmonary function: FEV1 (I) 0.2 ± 0.2 0.1 ± 0.4 0.012 (w) FVC (I) 0.4 ± 0.2 -0.1 ± 0.3 <0.001 (w) FEV1/FVC, % -2.4 ± 3.7 5.9 ± 17.3 0.037 (w) TLC (I) 0.5 ± 0.4 0.2 ± 0.5 0.189 (t) FRC (I) 0.1 ± 0.4 0.0 ± 0.5 0.918 (t) DLCO (mmol/min/kPa) 2.6 ± 2.8 1.5 ± 2.0 0.264 (t) Pulmonary function (%, predicted)a: FEV1 9.2 ± 9.6 3.8 ± 24.0 0.007 (w) FVC 12.2 ± 6.2 -2.2 ± 7.0 <0.001 (w) TLC 9.1 ± 8.6 4.7 ± 9.0 0.110 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	Chest symptoms	22.2 ± 11.8	22.0 ± 19.8	0.548 (w)	
FEV1 (I) 0.2 ± 0.2 0.1 ± 0.4 0.012 (w) FVC (I) 0.4 ± 0.2 -0.1 ± 0.3 <0.001 (w) FEV1/FVC, % -2.4 ± 3.7 5.9 ± 17.3 0.037 (w) TLC (I) 0.5 ± 0.4 0.2 ± 0.5 0.189 (t) FRC (I) 0.1 ± 0.4 0.0 ± 0.5 0.918 (t) DLCO (mmol/min/kPa) 2.6 ± 2.8 1.5 ± 2.0 0.264 (t) Pulmonary function (%, predicted)a: FEV1 9.2 ± 9.6 3.8 ± 24.0 0.007 (w) FVC 12.2 ± 6.2 -2.2 ± 7.0 <0.001 (w) FVC 12.2 ± 6.2 -2.2 ± 7.0 <0.001 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	Psychological symptoms	14.2 ± 8.3	18.5 ± 10.4	0.252 (t)	
FVC (I) 0.4 ± 0.2 -0.1 ± 0.3 <0.001 (w) FEV1/FVC, % -2.4 ± 3.7 5.9 ± 17.3 0.037 (w) TLC (I) 0.5 ± 0.4 0.2 ± 0.5 0.189 (t) FRC (I) 0.1 ± 0.4 0.0 ± 0.5 0.918 (t) DLCO (mmol/min/kPa) 2.6 ± 2.8 1.5 ± 2.0 0.264 (t) Pulmonary function (%, predicted)a: FEV1 9.2 ± 9.6 3.8 ± 24.0 0.007 (w) FVC 12.2 ± 6.2 -2.2 ± 7.0 <0.001 (w) TLC 9.1 ± 8.6 4.7 ± 9.0 0.110 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	Pulmonary function:				
FEV1/FVC, % -2.4 ± 3.7 5.9 ± 17.3 0.037 (w) TLC (l) 0.5 ± 0.4 0.2 ± 0.5 0.189 (t) FRC (l) 0.1 ± 0.4 0.0 ± 0.5 0.918 (t) DLCO (mmol/min/kPa) 2.6 ± 2.8 1.5 ± 2.0 0.264 (t) Pulmonary function (%, predicted)a: 9.2 ± 9.6 3.8 ± 24.0 0.007 (w) FVC 12.2 ± 6.2 -2.2 ± 7.0 <0.001 (w) TLC 9.1 ± 8.6 4.7 ± 9.0 0.110 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	FEV1 (l)	0.2 ± 0.2	0.1 ± 0.4	0.012(w)	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	FVC (I)	0.4 ± 0.2	-0.1 ± 0.3	<0.001 (w)	
FRC (1) 0.1 ± 0.4 0.0 ± 0.5 0.918 (t) 0.10 ± 0.5	FEV1/FVC, %	-2.4 ± 3.7	5.9 ± 17.3	0.037(w)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	TLC (1)	0.5 ± 0.4	0.2 ± 0.5	0.189(t)	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		0.1 ± 0.4	0.0 ± 0.5	0.918 (t)	
FEV1 9.2 ± 9.6 3.8 ± 24.0 0.007 (w) FVC 12.2 ± 6.2 -2.2 ± 7.0 $<0.001 \text{ (w)}$ TLC 9.1 ± 8.6 4.7 ± 9.0 0.110 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change $4 (33)$ $5 (29)$	DLCO (mmol/min/kPa)	2.6 ± 2.8	1.5 ± 2.0	0.264 (t)	
FVC 12.2 ± 6.2 -2.2 ± 7.0 <0.001 (w) TLC 9.1 ± 8.6 4.7 ± 9.0 0.110 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	Pulmonary function (%, predicted) ^a :				
TLC 9.1 ± 8.6 4.7 ± 9.0 0.110 (w) FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change $4 (33)$ $5 (29)$	FEV1	9.2 ± 9.6	3.8 ± 24.0	0.007(w)	
FRC 1.9 ± 15.9 3.1 ± 17.3 0.852 (t) DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	FVC	12.2 ± 6.2	-2.2 ± 7.0	<0.001 (w)	
DLCO 14.3 ± 12.7 7.5 ± 10.1 0.125 (t) Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	TLC	9.1 ± 8.6	4.7 ± 9.0	0.110(w)	
Lung damage, % -17.9 ± 11.8 -11.2 ± 11.7 0.111 (w) CT score: Increase or no change 4 (33) 5 (29)	FRC	1.9 ± 15.9	3.1 ± 17.3	0.852 (t)	
CT score: Increase or no change 4 (33) 5 (29)	DLCO	14.3 ± 12.7	7.5 ± 10.1	0.125 (t)	
Increase or no change 4 (33) 5 (29)	Lung damage, %	-17.9 ± 11.8	-11.2 ± 11.7	0.111 (w)	
	CT score:				
Decrease 8 (67) 12 (71) 1.000 (f)	Increase or no change	4 (33)	5 (29)		
	Decrease	8 (67)	12 (71)	1.000 (f)	

^aData are given in relation to baseline level. Data in bold indicates significant p value (< 0.05).

 $^{^{}a}$ Test is put in brackets: c – Chi-squared test, f – Fisher's exact test, t – Student's t-test, u – Mann–Whitney test.

Appendix S16. Exploratory analysis of age, hospitalization time and time after the onset of the first symptoms.

Table S16.1. Result summary of the exploratory analysis of a) age, b) hospitalization time and c) time after the onset of the first symptoms: parameters of selected models for a change in modified Borg score, TLC and lung damage. Group – group of therapy, init – baseline value of corresponding parameter. The models were chosen by the analogy of the exploratory analysis of sex.

a) Result summary of the exploratory analysis of age.

	Characteristics of model				
Predicted parameter	Formular ^a	R ² (R ² adj.), % F-statistic (df), p-value	Coefficient of Group: Age interaction, p-value		
Dyspnea Borg scale	init:Group +init:Age+ Group*Age	33.7 (pseudo- R^2); F (6,48) = 14.6,	0.00,		
score	(median regression)	p < 0.001***	1.000		
TLC,	init*Group*Age	14.9 (pseudo- R^2); F (7,50) = 1.99,			
% pred.	(median regression)	p = 0.075	_		
Lung damage, %	init:Group +init:Age+ Group:Age	13.6 (7.03); F (4,53) = 2.08, p = 0.097	_		

a ":" – interaction term without main effect, "*" – interaction term with main effect, Age – patient age as descrete factor with two levels (≥58 years old, <58 years old). Patients from Placebo group <58 years old were used as baseline level.

b) Result summary of the exploratory analysis of hospitalization time

	Characteristics of model				
Predicted parameter	Formular ^a	R ² (R ² adj.), % F-statistic (df), p-value	Coefficient of Group:Hosp interaction, p-value		
Dyspnea Borg	init:Subst+init:Hosp+Subst*Hosp	31.7 (pseudo- R^2); F (6,48) = 6.97,	0.00,		
scale score	(median regression)	p < 0.001***	1.000		
TLC, % pred.	init+Subst*Hosp (median regression)	3.99 (pseudo- R^2); F (4,53) = 0.79, p = 0.534	_		
Lung damage, %	init+Subst*Hosp	12.8 (6.16); F (4,53) = 1.94, p = 0.118	-		

a":" – interaction term without main effect, "*" – interaction term with main effect, Hosp – hospitalization time as discrete factor with two levels (≥14 days, <14 days). Patients from Placebo group with <2 weeks of hospitalization old were used as baseline level.

c) Result summary of the exploratory analysis of hospitalization time

	Characteristics of model				
Predicted parameter	Formular ^a	R ² (R ² adj.), % F-statistic (df), p-value	Coefficient of Group:Symp interaction, p-value		
Dyspnea Borg scale score	init:Symp+Subst*Symp	47.4 (42.1); F (5,49) = 8.84, p < 0.001***	0.12, 0.736		
TLC, % pred.	init+Subst*Symp (median regression)	6.44 (pseudo-R ²); F (4,53) = 1.20, p = 0.323	_		
Lung damage, %	init+Subst*Symp	19.0 (12.9); F (4,53) = 3.11, p = 0.023*	2.41, 0.693		

a ":" – interaction term without main effect, "*" – interaction term with main effect. Symp – time after the onset of the first symptoms as discrete factor with two levels (≥53 days, <53 days). Patients from Placebo group with <53 days after the onset of the first symptoms were used as baseline level.

Table S16.2. Primary efficacy outcome evaluation for subgroups of patients divided by a) age, b) hospitalization time and c) time after the onset of the first symptoms.

a) Primary efficacy outcome evaluation for subgroups of patients divided by age.

	Older patients (≥58 years old)					
mITT	Placebo : 3 out of 15 (20%)	Treamid : 7 out of 15 (47%)	p = 0.245 (Fisher's exact test)			
PPS	Placebo : 2 out of 11 (18%)	Treamid : 7 out of 13 (54%)	p = 0.105 (Fisher's exact test)			
		'				
		Younger patients (<58 years old)				
mITT	Placebo : 2 out of 15 (13%)	Treamid : 5 out of 14 (36%)	p = 0.215 (Fisher's exact test)			
PPS	Placebo : 2 out of 14 (14%)	Treamid : 4 out of 12 (33%)	p = 0.365 (Fisher's exact test)			

b) Primary efficacy outcome evaluation for subgroups of patients divided by hospitalization time.

	Hospitalization ≥14 days				
mITT	Placebo : 2 out of 14 (14%)	Treamid : 7 out of 15 (47%)	p = 0.109 (Fisher's exact test)		
PPS	Placebo : 2 out of 13 (15%)	Treamid : 7 out of 15 (47%)	p = 0.114 (Fisher's exact test)		
		Hospitalization <14 days			
mITT	Placebo : 3 out of 16 (19%)	Hospitalization <14 days Treamid: 5 out of 14 (36%)	p = 0.417 (Fisher's exact test)		

c) Primary efficacy outcome evaluation for subgroups of patients divided by time after the onset of the first symptoms.

	Symptoms onset ≥53 days				
mITT	Placebo : 2 out of 17 (12%)	Treamid : 6 out of 14 (43%)	p = 0.097 (Fisher's exact test)		
PPS	Placebo : 2 out of 16 (13%)	Treamid : 6 out of 13 (46%)	p = 0.092 (Fisher's exact test)		
		Symptoms onset <53 days			
mITT	Placebo : 3 out of 13 (23%)	Symptoms onset <53 days Treamid: 6 out of 15 (40%)	p = 0.435 (Fisher's exact test)		

Appendix S17. Rationale for study drug dose selection based on PK/PD models

Dose selection for the exploratory clinical study was based on data from PK and preclinical efficacy studies. An oral dose of 10 mg/kg showed a therapeutic effect in all mouse models studied. Preclinical tissue distribution data showed that daily administration of this dose administered led to mean respiratory concentration of $0.50 - 0.75 \mu M$. According to preclinical data, oral administration led to uneven distribution between tissue and blood, resulting in higher concentration in tissues. The concentration measured in blood plasma was about 5 times lower compared to lung tissue. Thus, to describe the pharmacokinetics of the drug, it is reasonable to use a multicompartment model. Drug elimination is well described by a two-compartment model with first-order kinetics for absorption and elimination (Figure S16.1) and the ratio of constants $k_{12}/k_{21} >> 1$.

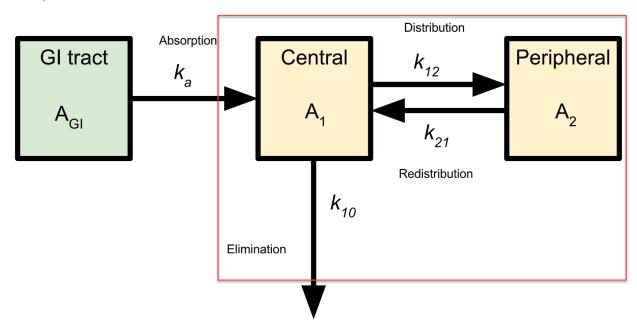


Figure S16.1 General scheme of a two-compartment model of oral pharmacokinetics

Based on the results of the preclinilca pharmacokinetic studies, a model of the pharmacokinetics of the drug in humans with repeated oral administration was built. Data on the concentrations of the substance in human plasma at different time points were taken from the results of phase I clinical trials (NCT04428593).

To build the model, we selected the kinetic constants of adsorption, elimination, and transfer of a substance between compartments at fixed dose parameters (5, 15, and 50 mg), bioavailability (0.02, 0.01, and 0.01, respectively), and the volume of the central compartment (5 L), in order to minimize equation according to the formula:

loss =
$$(\max(C_{\text{pred}}, 0) - C(t))^2/CV$$

where

Cpred is the predicted plasma concentration of the drug,

C(t) – experimentally measured drug concentration in blood plasma.

As a result, the values of the constants characterizing the pharmacokinetics of the drug were found: $k_e = 0.8 \ h^{-1}$, $k_a = 1.2 \ h^{-1}$, $k_{12} = 8.5 E + 06 \ h^{-1}$, $k_{21} = 3.4 E + 06 \ h^{-1}$ (Figure S16.2).

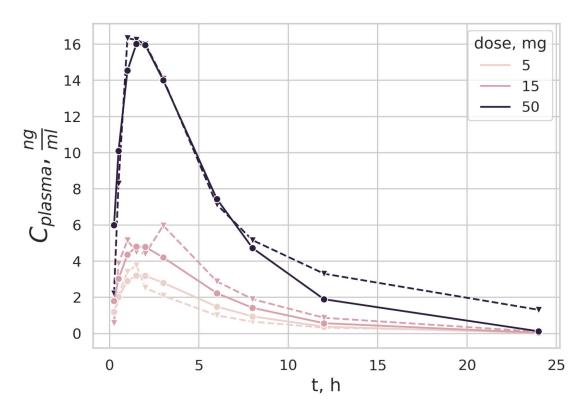


Figure S16.2 Human plasma concentrations obtained in Ph I clinical trial (dashed line) and predicted by the PK model (solid line)

To calculate the concentration of the substance in the lung tissue, data on the distribution of the drug in mice were used. Oral application of 10 mg/kg in mice revealed a linear relation between blood plasma and lung tissue concentration (R^2 =0.81 for a linear relationship between lung concentration and plasma concentration). This mice plasma concentration is corresponding to the human concentration in dose of 50mg per day. This indicates that the relation ke, $k_a \ll k_{12}$, k_{21} is preserved for mice. Based on the protocol given in (Proceedings of the National Academy of Sciences Feb 2002, 99 (suppl 1) 2473-2478; DOI: 10.1073/pnas.012579799), the distribution of the substance between the lungs and human blood plasma was recalculated.

$$C_{lung} = C_{plasm} \times 3.6 \times 2 \times 10^3 - 30$$

where

C_{lung} – concentration of the drug in the lungs,

C_{plasm} – plasma concentration,

 3.6×10^3 –distribution coeffitient,

2 – coefficient of interspecies transfer taking into account the volumes of compartments.

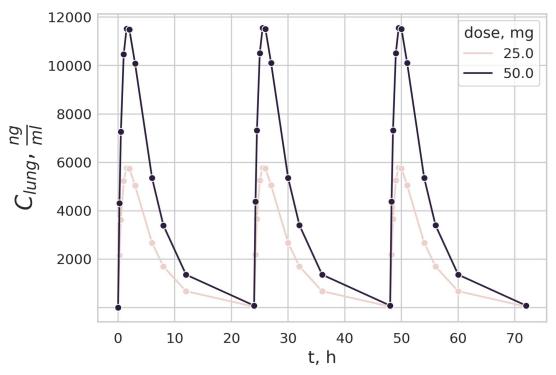


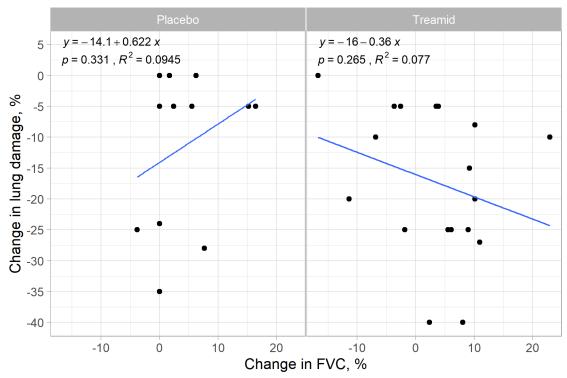
Figure S16.3 Predicted concentration in the human lungs after daily oral administration of Treamid

As a result, it was shown that the administration of Treamid (50 mg daily) allows reaching the average drug concentration in the human respiratory organs at 0.75-1 μ M, which correlates with the lung concentrations estimated in mice PK/PD study.

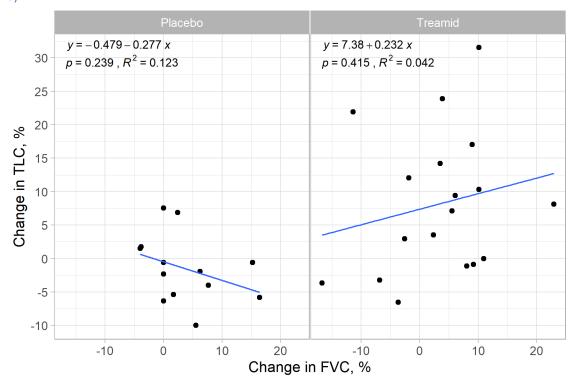
Figures

Figure S1. Correlation of change in a) lung damage and b) TLC with change in FVC in women.

a)



b)



Tables Table S1. Demographics and baseline clinical characteristics of PPS population by study cohort.

Parameter	Treamid (n = 25)	Placebo (n = 25)	p-value ^a	Overall (n = 50)
Age (year)	53.6 ± 10.8	54.5 ± 12.6	0.783 (t)	54 ± 12
Male, n (%)	9 (36.0)	12 (48.0)	0.390(c)	21 (42)
BMI (kg/m^2)	28.7 ± 5.1	27.3 ± 4.3	0.289 (u)	28 ± 4.7
Lung damage	27.4 ± 21.6	26.1 ± 19.7	0.822 (t)	26.7 ± 20.5
CT score:				
1	15 (60.0)	14 (56.0)	0.774(c)	29 (58)
2	7 (28.0)	10 (40.0)	0.370 (c)	17 (34)
3	3 (12.0)	1 (4.0)	0.609 (f)	4 (8)
Pulmonary function (abs.				
FEV1 (l)	2.7 ± 0.7	2.9 ± 0.8	0.497 (t)	2.8 ± 0.7
FVC (l)	3.4 ± 0.8	3.5 ± 0.9	0.726 (u)	3.4 ± 0.8
FEV1/FVC ratio	80.4 ± 11.0	82.3 ± 10.5	0.524 (t)	81.3 ± 10.7
TLC (1)	5.8 ± 1.4	6.0 ± 1.2	0.557(t)	5.9 ± 1.3
FRC (1)	3.2 ± 0.9	3.4 ± 1.2	0.764 (u)	3.3 ± 1.0
DLCO (mmol/min/kPa)	20.4 ± 5.2	20.2 ± 5.6	0.884 (u)	20.3 ± 5.4
Pulmonary function (%,				
FEV1	88.1 ± 18.8	89.3 ± 16.7	0.819(t)	88.7 ± 17.7
FVC	87.0 ± 14.5	85.7 ± 15.3	0.528 (u)	86.4 ± 14.7
FEV1/FVC	100.9 ± 11.4	104.5 ± 11.9	0.276 (t)	102.7 ± 11.7
TLC	97.8 ± 13.7	98.5 ± 16.2	0.859(t)	98.1 ± 14.9
FRC	102.3 ± 20.6	110.8 ± 36.6	0.560 (u)	106.5 ± 29.7
DLCO	74.6 ± 16.5	73.5 ± 15.2	0.846 (u)	74.1 ± 15.7
6MWD (m)	426.2 ± 84.3	422.1 ± 97.8	0.876 (t)	424.1 ± 90.4
6MWD (%, predicted)	78.0 ± 15.5	75.7 ± 19.2	0.647 (t)	76.9 ± 17.3
Borg scale (score)	2.1 ± 0.9	1.8 ± 1.1	0.227 (t)	2.0 ± 1.0
mMRC scale (score)	2.0 ± 0.0	2.1 ± 0.3	0.161 (u)	2.0 ± 0.2
KBILD questionnaire (score)	49.4 ± 3.7	51.5 ± 6.2	0.148 (t)	50.5 ± 5.2

Data are n (%) or mean ± SD. Baseline defined as the mean assessments at screening (or at randomization for 6MWD, Borg scale, mMRC scale and KBILD questionnaire). **Abbreviations:** 6MWD – distance walked in 6 min walk test; BMI – body mass index; CT – computed tomography; DLCO – diffusing capacity of the lungs for carbon monoxide, adjusted for blood hemoglobin concentration; FEV1 – forced expiratory volume in one second; FRC – functional residual capacity; FVC – forced vital capacity; Hb – hemoglobin; K-BILD – King's brief interstitial lung disease questionnaire; mMRC – modified Medical Research Council dyspnea scale; TLC – total lung capacity.

^aTest is in brackets: c − Chi-squared test, f − Fisher's exact test, t − Student's t-test, u − Mann–Whitney test.

Table S2. The frequency (n (%)) of clinically significant improvement in DLCO after 4-week treatment period in subgroup of patients with gas exchange impairment at baseline.

Population	Relative change in DLCO, % pred.	Treamid n = 23	Placebo n = 25
	Decrease, no change or <15% increase, n (%)	14 (61)	22 (88)
Baseline DLCO < 80%	≥ 15% increase, n (%)	9 (39)	3 (12)
	p-value (χ^2)	0.0	30

Table S3. Means of baseline values and change for 4 weeks of therapy for ITT population, women, and patients with baseline DLCO < 80%.

MWD (m) D	Population mITT DLCO < 80% Women	Treamid 423.6±80.2	Placebo	p-value ^a	Treamid	Placebo	1 9
(m) L MWD	OLCO < 80%		440000			1 laccoo	p-value ^a
(m) L MWD			418.9±96.7	0.844 (t)	78.6±75.2	71.8±50.2	0.960 (u)
MWD	Women	405.6 ± 76.8	409.3±95.0	0.886 (t)	89.2±74.1	81.0 ± 50.7	0.981 (u)
		422.9 ± 84.4	428.8 ± 96.2	0.854 (t)	83.5±74.7	59.5±36.2	0.623 (u)
	mITT	78.3±14.8	76.0±18.6	0.609 (t)	21.3±23.1	19.7±16.5	0.720 (u)
	DLCO < 80%	75.5 ± 14.5	76.1 ± 18.7	0.892 (t)	25.1±24.1	22.5 ± 17.0	0.954 (u)
(% pred.)	Women	81.3±15.3	80.9±16.2	0.952 (t)	22.4±23.7	15.5±11.0	0.815 (u)
D 1 .	mITT	2.2±0.8	1.8±1.1	0.144 (u)	-0.9 ± 0.7	-0.4 ± 0.8	0.018* (u)
Borg scale	DLCO < 80%	2.2 ± 0.8	1.8 ± 1.1	0.114 (u)	-0.9 ± 0.7	-0.4 ± 0.9	0.020* (u)
(score)	Women	2.2 ± 0.9	2.1±1.1	0.748 (u)	-1.2 ± 0.5	-0.5 ± 0.9	0.010* (u)
mMRC	mITT	2.0±0.0	2.1±0.3	0.168 (u)	-1.1±0.5	-1.1±0.6	0.683 (u)
	DLCO < 80%	2.0 ± 0.0	2.1 ± 0.3	0.180 (u)	-1.1 ± 0.5	-1.0 ± 0.7	0.827 (u)
(score)	Women	2.0 ± 0.0	2.0 ± 0.0		-1.1 ± 0.4	-1.0 ± 0.7	0.816 (u)
K-BILD,	mITT	37.8±5.5	38.8±8.6	0.594 (t)	17.4±9.1	16.5±13.4	0.383 (u)
breathlessness D	OLCO < 80%	37.1 ± 5.8	38.3 ± 9.1	0.590 (t)	18.3±9.0	17.3 ± 14.5	0.327 (u)
and activities	Women	37.9 ± 5.4	37.6 ± 5.4	0.903 (t)	16.3±7.0	14.4 ± 5.5	0.408 (t)
K-BILD, chest	mITT	51.6±14.4	56.1±14.0	0.218 (u)	22.1±16.7	18.3±14.3	0.134 (u)
symptoms D	DLCO < 80%	51.8±16.1	56.2±14.5	0.264 (u)	22.2±17.9	18.8 ± 15.3	0.162 (u)
(score)	Women	51.8 ± 10.4	53.2±10.5	0.817 (u)	23.5±12.3	18.4 ± 13.6	0.272 (t)
K-BILD,	mITT	49.6±7.7	54.3±11.3	0.204 (u)	16.7±9.7	13.1±13.2	0.145 (u)
	OLCO < 80%	50.1±7.9	54.7±12.2	0.396 (u)	17.0±9.6	13.8±14.3	0.373 (t)
(score)	Women	49.0±6.3	52.9±12.0	0.232 (t)	16.9±8.6	15.0±9.5	0.551 (t)
` /	mITT	50.2±4.5	52.8±6.7	0.089 (t)	13.8±7.1	11.7±10.0	0.117 (u)
K-BILD	DLCO < 80%	50.2±4.6	52.8±7.2	0.283 (u)	14.2±7.2	12.2±10.9	0.183 (u)
(total score)	Women	50.1±3.9	51.6±5.7	0.396 (t)	13.3±5.1	11.8±5.5	0.439 (t)
	mITT	87.5±17.8	91.1±17.0	0.439 (t)	6.1±19.1	3.4±8.7	1.000 (u)
FEV1	DLCO < 80%	92.6±15.5	92.0±18.4	0.904 (t)	0.7 ± 6.5	4.0±9.3	0.413 (u)
(% pred.)	Women	86.7±18.0	84.3±12.4	0.681 (t)	6.6±22.6	1.8±5.9	0.936 (u)
	mITT	86.0±14.0	87.4±16.2	0.932 (u)	4.0±9.8	4.4±8.8	0.805 (u)
FVC	OLCO < 80%	88.9±14.3	90.0±16.7	0.924 (u)	1.6±8.2	4.6 ± 9.6	0.668 (u)
(% pred.)	Women	85.1±13.8	81.0±9.9	0.502 (u)	3.3±9.3	3.6 ± 6.4	0.901 (t)
EELII /ELIG	mITT	101.5±10.9	104.6±11.2	0.283 (t)	2.1±15.2	-0.8 ± 5.6	0.968 (u)
FEV1/FVC	OLCO < 80%	104.3 ± 8.3	102.3±9.5	0.439 (t)	-0.6±5.5	-0.4 ± 5.6	0.478 (u)
(% pred.)	Women	101.7±12.2	104.1±8.7	0.545 (t)	3.2±18.8	-1.6 ± 5.0	0.708 (u)
TIC	mITT	96.6±13.8	98.5±14.9	0.596 (u)	6.6±8.9	5.3±12.8	0.255 (u)
TLC	OLCO < 80%	93.7±12.8	99.9±15.7	0.090 (u)	6.3±9.1	6.0 ± 13.5	0.440 (u)
(% pred.)	Women	94.6 ± 14.1	102.6±16.9	0.117 (u)	8.1±10.5	-0.9 ± 5.3	0.004* (t)
EDC	mITT	100.8±21.9	108.6±34.7	0.601 (u)	2.6±16.4	0.6±16.4	0.421 (u)
FRC	DLCO < 80%	97.6 ± 18.3	111.8±36.7	0.201 (u)	2.0±18.1	-2.8 ± 12.2	0.311 (t)
(% pred.)	Women	95.2 ± 20.2	106.5±45.5	0.884 (u)	2.3±18.0	-2.4 ± 11.2	0.405 (t)
DI CO	mITT	73.9±15.7	73.7±14.1	0.559 (u)	10.4±11.6	9.9±14.1	0.575 (u)
DLCO	OLCO < 80%	67.2±7.4	69.0±9.6	0.231 (u)	12.8±10.1	11.4±14.2	0.380 (u)
(% pred.)	Women	73.2 ± 17.3	72.6±12.9	0.536 (u)	10.6±12.6	9.5 ± 17.7	0.595 (u)
T 1.	mITT	27.9±20.7	29.6±21.5	0.736 (u)	-14.0±12.0	-14.3±12.9	0.962 (u)
Lung damage	OLCO < 80%	32.3 ± 20.7	32.3±22.3	0.975 (u)	-15.4±12.8	-14.3 ± 13.7	0.812 (u)
(%)	Women	27.5±21.5	27.4±24.7	0.739 (u)	-17.1±11.7	-10.5 ± 12.6	0.073 (u)

 $Data\ in\ bold\ indicates\ p\text{-value} \leq 0.100.\ ^aTest\ is\ put\ in\ brackets:\ t-Student's\ t\text{-test},\ u-Mann-Whitney\ test.$

Table S4. List of protocol deviations

ID	Date*	Patient ID	Description of the deviation	Deviation category	The main reason	Planned deviation? (Yes/No)	Corrective action	Preventive action	Significant deviation? (Yes/No)	Comments
1	2	3	4	5	6	7	8	9	10	11
5-1	03.11	05-01	On the visit 6 patient was not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
5-2	20.11	05-02	The patient made the visit 6 two days later scheduled	Visits windows	Patient	Yes	No	It was discussed with investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
5-2	20.11	05-01	On visits 1, 2, 4, 6, 7 the patient did not have a haemoglobin level determined as part of the urine test due to technical reasons.	Protocol procedures	Investigator	Yes	No	No	No	
5-2	20.11	05-02	On visits 1, 2, 4, 6, 7 the patient did not have a haemoglobin level determined as part of the urine test due to technical reasons.	Protocol procedures	Investigator	Yes	No	No	No	
7-1	25.11	07-01	On the visit 6 patient was not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	
9-1	03.10	09-01	Patient 09-01 made visit 3 two days later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was re-discussed with the investigator to instruct patients on the timing of visits in order to avoid deviations.	No	

1	2	3	4	5	6	7	8	9	10	11
9-2	29.10	09-01	Patient 09-01 made visit 4 a day later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was re-discussed with the investigator to instruct patients on the timing of visits in order to avoid deviations.	No	
9-2	29.10	09-01	Patient 09-01 made visit 5 five days later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was re-discussed with the investigator to instruct patients on the timing of visits in order to avoid deviations.	No	
9-2	29.10	09-01	On the visit 6 patient was not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	
9-3	27.11	09-03	Patient 09-03 made visit 6 a day later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was re-discussed with the investigator to instruct patients on the timing of visits in order to avoid deviations.	No	
9-3	27.11	09-01	The presence of concomitant chronic diseases in patient 09-01 was not taken into account during stratification	Randomization	Investigator	No	No	There was discussion about the need to enter accurate data into the IRC, especially data for stratification.	No	
9-3	27.11	09-02	The presence of concomitant chronic diseases in patient 09-02 was not taken into account during stratification	Randomization	Investigator	No	No	There was discussion about the need to enter accurate data into the IRC, especially data for stratification	No	
11-1	11.11	11-01	On the visit 6 patients were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7

1	2	3	4	5	6	7	8	9	10	11
11-1	11.11	11-09	On the visit 6 patients were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
11-2	24.11	11-10	On the visit 6 patient were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
11-2	24.11	11-11	On the visit 6 patient were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
11-2	24.11	11-12	On the visit 6 patients were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
11-2	24.11	11-13	On the visit 6 patients were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
11-2	24.11	11-16	On the visit 6 patients were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
11-2	24.11	11-17	On the visit 6 patient were not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA	Protocol procedures	Investigator	No	No	The investigators were interviewed about the protocol procedures	No	If possible, take a swab at visit 7
11-2	24.11	11-02	The presence of concomitant chronic diseases in patients was not taken into account during stratification	Randomization	Investigator	No	No	There was discussion about the need to enter accurate data into the IRC, especially data for stratification	No	
11-2	24.11	11-06	The presence of concomitant chronic diseases in patients was not taken into account during stratification	Randomization	Investigator	No	No	There was discussion about the need to enter accurate data into the	No	

1	2	3	4	5	6	7	8	9	10	11
								IRC, especially data for stratification		
11-2	24.11	11-10	The presence of concomitant chronic diseases in patients was not taken into account during stratification	Randomization	Investigator	No	No	There was discussion about the need to enter accurate data into the IRC, especially data for stratification	No	
11-2	24.11	11-17	The presence of concomitant chronic diseases in patients was not taken into account during stratification	Randomization	Investigator	No	No	There was discussion about the need to enter accurate data into the IRC, especially data for stratification	No	
11-2	24.11	11-06	Patient made visit 3 a day later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
11-2	24.11	11-10	Patient made visit 6 a day later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
11-2	24.11	11-11	Patient made visit 6 a day later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
11-2	24.11	11-16	Patient made visit 5 a day later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with investigators to instruct patients on the timing	No	

1	2	3	4	5	6	7	8	9	10	11
								of visits in order to avoid deviations.		
13-1	20.11	13-08	B7 was conducted with a deviation of 1 week earlier	Visits windows	Investigator	No	No	It was discussed with the principal investigator that visit windows must be strictly observed.	No	
13-1	20.11	13-03	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be respected and data must be entered into the IRC more carefully.	No	
13-1	20.11	13-10	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be respected and data must be entered into the IRC more carefully.	No	
13-1	20.11	13-11	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be respected and data must be entered into the IRC more carefully.	No	
13-1	20.11	13-12	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be	No	

1	2	3	4	5	6	7	8	9	10	11
								respected and data must be entered into the IRC more carefully.		
13-1	20.11	13-05	The stratification of patients was disturbed. Patients are over 60 years of age and have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be respected and data must be entered into the IRC more carefully.	No	
13-1	20.11	13-06	The stratification of patients was disturbed. Patients are over 60 years of age and have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be respected and data must be entered into the IRC more carefully.	No	
13-1	20.11	13-08	The stratification of patients was disturbed. Patients are over 60 years of age and have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be respected and data must be entered into the IRC more carefully.	No	
13-1	20.11	13-09	The stratification of patients was disturbed. Patients are over 60 years of age and have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that stratification must be respected and data must be entered into the IRC more carefully.	No	

1	2	3	4	5	6	7	8	9	10	11
15-1	19.10	15-01	No body plethysmography on B4 due to acute rhinopharyngitis	Protocol procedures	Patient	No	No	No	No	Such non- compliance with investigation procedures does not affect patient safety.
15-1	19.10	15-01	Patient had spirometry on B5 dated 12.10.2020. The patient developed an adverse event (ARI (acute rhinopharyngitis)) dated 06.10.2020. The protocol states that spirometry must not be performed earlier than 7 days after the last symptoms of upper respiratory tract disease	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that it was necessary to operate strictly within the protocol	No	Deviation compromises the integrity of the study data, but does not affect the assessment of the primary endpoint. When assessing the secondary endpoint, the data will be assessed as missing and will not be analysed.
15-2	03.11	15-02	The patient had spirometry on B3 (01.10) and on B4 (08.10). The patient developed an adverse event (ARI) from 26.09.2020 to 06.10.2020. The protocol states that spirometry must not be performed earlier than 7 days after the last symptoms of upper respiratory tract disease	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that it was necessary to operate strictly within the protocol	No	

1	2	3	4	5	6	7	8	9	10	11
15-2	03.11	15-02	Spirometry was performed on B1 as part of a body plethysmography, with subsequent spirometry performed on a spirometer in the centre.	Protocol procedures	Investigator	No	No	It was discussed with the investigators that it is important in spirometry to use one device for all measurements.	Yes	
15-2	03.11	15-13	Patient had a CT scan mistakenly entered at the screening visit. CT2 was replaced by CT1 (15-13) and CT3 was replaced by CT1 (15-14). As a result, incorrect stratification was carried out.	Randomization	Investigator	No	No	Clarifying questions were created in the IRC on these fields. A discussion was held on the need to enter accurate data in the IRC, especially data for stratification.	Yes	
15-2	03.11	15-14	Patient at the screening visits had a CT scan mistakenly entered CT scan. CT2 was replaced by CT1 (15-13), CT3 was replaced by CT1 (15-14). CT3 was replaced by CT1 (15-14). As a result, incorrect stratification was carried out.	Randomization	Investigator	No	No	Clarifying questions were created in the IRC on these fields. A discussion was held on the need to enter accurate data in the IRC, especially data for stratification.	Yes	
15-3	13.11	15-09	Patient 15-10 signed the FIS before patient 15-09.	Informed consent	Investigator	No	No	It was discussed with the principal investigator that it was necessary to register the patient alternately in the study.	No	
15-3	13.11	15-10	Patient 15-10 signed the FIS before patient 15-09.	Informed consent	Investigator	No	No	It was discussed with the principal investigator that it was necessary to register	No	

1	2	3	4	5	6	7	8	9	10	11
								the patient alternately in the study.		
15-3	13.11	15-11	Due to a failure in the eIRC and the unavailability of the IWRS, manual distribution of drug packages was carried out by a blinded employee. Patient 15-11 on B5 was given package 0244. According to the protocol, the drug must be dispensed through eIRC.	Protocol procedures	Other	No	No	No	No	
15-3	13.11	15-17	Due to a failure in the eIRC and the unavailability of the IWRS, manual distribution of drug packages was carried out by a blinded employee. Patient 15-11 on B5 was given package 0239. According to the protocol, the drug must be dispensed through eIRC.	Protocol procedures	Other	No	No	No	No	
15-4	27.11	15-12	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed with the principal investigator that the data in the IRC must be noted more carefully.	No	
15-4	27.11	15-10	Patient's body plethysmography on B4 was performed with a 7-day deviation (instead of 23.10.2020, it was performed on 30.10.2020) due to lack of recording places at a third-party organisation	Protocol procedures	Investigator	No	No	The principal investigator was advised to plan procedures in a timely manner	No	
15-4	27.11	15-14	Blood tests at visits 1, 2, 3 in a diabetic patient were not performed on an empty stomach because the patient felt a loss of energy.	Protocol procedures	Investigator	No	an empty stomach test on	It is recommended that patients should be better informed about compliance with protocol procedures.	Yes	

1	2	3	4	5	6	7	8	9	10	11
15-4	27.11	15-15	The patient had an ARI adverse event on 25.10.2020, on B4 of 26.10.20 spirometry was carried out, and on 30.10 body plethysmography was carried out. On B5 of 03.11.2020 spirometry was performed. The protocol states that in case of upper respiratory tract disease, spirometry can only be performed 7 days after the last symptoms of the disease.	Protocol procedures	Investigator	No	No	It was discussed with the researchers that this time range must be respected.	Yes	
16-1	17.11	16-05	Patient 16-05 did not take into account the presence of comorbidity chronic diseases, which resulted in an incorrect stratification.	Randomization	Patient	No	No	A discussion was held on the need to enter accurate data into the IRC, especially data for stratification.	No	
16-1	17.11	16-03	Patients 16-03 made visit 6 a day later than the window of the visit envisaged by the schedule of procedures	Protocol procedures	Patient	No	No	The investigators were interviewed about the need to instruct patients on the timing of their visits in order to avoid deviations.	No	
16-1	17.11	16-04	Patients 16-04 made visit 6 a day later than the window of the visit envisaged by the schedule of procedures	Protocol procedures	Patient	No	No	The investigators were interviewed about the need to instruct patients on the timing of their visits in order to avoid deviations.	No	
16-1	17.11	16-06	Patient 16-06 was not swabbed nasopharynx and/or oropharynx for PCR for SARS-CoV-2 RNA due to technical reasons	Protocol procedures	Investigator	No	No	The researchers were interviewed about protocol procedures	No	
18-1	23.11	18-02	B4 in a patient was carried out 1 day late with a deviation. The investigator	Protocol procedures	Investigator	No	No	It was discussed with the researcher that	No	

1	2	3	4	5	6	7	8	9	10	11
			attributed this to the fact that the referral for admission to hospital could not be made in time.					visitation windows must be respected.		
18-1	23.11	18-03	B4 in a patient was carried out 1 day late with a deviation. The investigator attributed this to the fact that the referral for admission to hospital could not be made in time.	Protocol procedures	Investigator	No	No	It was discussed with the researcher that visitation windows must be respected.	No	
18-1	23.11	18-01	The 6 minute walk test was not performed correctly at all visits (patients were stopped after walking 42 metres). The investigator attributed this to the fact that she did not fully understand how to perform this test and did not contact the monitor for clarification.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that protocol procedures must be followed and followed correctly.	Yes	
18-1	23.11	18-02	B4 in a patient was carried out 1 day late with a deviation. The investigator attributed this to the fact that the referral for admission to hospital could not be made in time.	Protocol procedures	Investigator	No	No	It was discussed with the researcher that visitation windows must be respected.	No	
18-1	23.11	18-02	The 6 minute walk test was not performed correctly at all visits (patients were stopped after walking 42 metres). The investigator attributed this to the fact that she did not fully understand how to perform this test and did not contact the monitor for clarification.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that protocol procedures must be followed and followed correctly.	Yes	
18-1	23.11	18-03	The 6 minute walk test was not performed correctly at all visits (patients were stopped after walking 42 metres). The investigator attributed this to the fact that she did not fully understand how to	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that protocol procedures	Yes	

1	2	3	4	5	6	7	8	9	10	11
			perform this test and did not contact the monitor for clarification.					must be followed and followed correctly.		
18-1	23.11	18-04	The 6 minute walk test was not performed correctly at all visits (patients were stopped after walking 42 metres). The investigator attributed this to the fact that she did not fully understand how to perform this test and did not contact the monitor for clarification.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that protocol procedures must be followed and followed correctly.	Yes	
18-1	23.11	18-01	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed that stratification in the eIRC needs to be marked more carefully.	No	
18-1	23.11	18-02	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed that stratification in the eIRC needs to be marked more carefully.	No	
18-1	23.11	18-03	The stratification of patients was disturbed. These patients have chronic diseases, and the presence of a risk factor is marked as "no".	Randomization	Investigator	No	No	It was discussed that stratification in the eIRC needs to be marked more carefully.	No	
13-2	11.12	13-01	B7 was carried out with a deviation of 1 week early.	Visits windows	Investigator	No	No	It was discussed with the principal investigator that the visiting windows must be strictly respected.	No	
13-2	11.12	13-03	B7 was carried out with a deviation of 1 week early.	Visits windows	Investigator	No	No	It was discussed with the principal investigator that the visiting windows must be strictly respected	No	

1	2	3	4	5	6	7	8	9	10	11
13-2	11.12	13-04	B7 was carried out with a deviation of 1 week early.	Visits windows	Investigator	No	No	It was discussed with the principal investigator that the visiting windows must be strictly respected	No	
13-2	11.12	13-02	The patient did not have an FRC body plethysmography score on B1 for technical reasons.	Protocol procedures	Investigator	No	No	No	No	
13-2	11.12	13-01	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons.	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-03	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-04	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-05	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-06	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the	Protocol procedures	Other	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
			general urine sample due to technical reasons							
13-2	11.12	13-07	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-08	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-09	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-10	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-11	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-12	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the	Protocol procedures	Other	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
			general urine sample due to technical reasons							
13-2	11.12	13-13	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-14	Patients did not have: bacteria, leucocytes, salts, cylinders, epithelials and erythrocytes on B1, 2, 4, 6, 7 in the general urine sample due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-03	No erythrocyte sedimentation rate was performed in patients on B1 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-04	No erythrocyte sedimentation rate was performed in patients on B1 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-08	No erythrocyte sedimentation rate was performed in patients on B1 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-09	No erythrocyte sedimentation rate was performed in patients on B1 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-10	No erythrocyte sedimentation rate was performed in patients on B1 due to technical reasons	Protocol procedures	Other	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
13-2	11.12	13-01,	No erythrocyte sedimentation rate was performed in patients on B2 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-03	No erythrocyte sedimentation rate was performed in patients on B2 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-06	No erythrocyte sedimentation rate was performed in patients on B2 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-07	No erythrocyte sedimentation rate was performed in patients on B2 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-08	No erythrocyte sedimentation rate was performed in patients on B2 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-12	No erythrocyte sedimentation rate was performed in patients on B6 due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-04	Patients on B2 did not have basophils in CBC for technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-12	Patients on B2 did not have basophils in CBC for technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-14	Patients on B2 did not have basophils in CBC for technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-14	Patients on B1 did not have basophils in CBC for technical reasons	Protocol procedures	Other	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
13-2	11.12	13-12	Patients on B7 did not have monocytes in CBC due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-14	Patients on B7 did not have monocytes in CBC due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-04	Patient 13-04 on B1 did not have eosinophins in CDC due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-12	Patient 13-12 on B1 did not have eosinophins in CDC due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-14	Patient 13-14 on B1 did not have eosinophins in CDC due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-01	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-05	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-06	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-08	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
13-2	11.12	13-09	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-10	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-11	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	
13-2	11.12	13-12	GGT, chlorine, sodium, alkaline phosphatase, creatine phosphokinase in BC on B1,2,4 not performed due to technical reasons	Protocol procedures	Other	No	No	No	No	
15-5	08.12	15-01	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-02	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	

1	2	3	4	5	6	7	8	9	10	11
15-5	08.12	15-03	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-05	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-06	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-07	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	

1	2	3	4	5	6	7	8	9	10	11
15-5	08.12	15-08	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-09	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-10	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-11	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	

1	2	3	4	5	6	7	8	9	10	11
15-5	08.12	15-12	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-13	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-14	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-15	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	

1	2	3	4	5	6	7	8	9	10	11
15-5	08.12	15-16	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-17	CT scan was performed later than B6 because the CT scan was performed at an external organisation and due to the epidemiological situation the recording was limited.	Protocol procedures	Investigator	No	No	It was discussed with the principal investigator that patients must be registered in advance for protocol procedures with external organisations	No	
15-5	08.12	15-05	Patient came to B7 later than planned due to personal circumstances. 1505 3 days late.	Visits windows	Patient	No	No	It was discussed with the principal investigator that patients needed to be instructed about the visit windows in more detail and asked to better follow these windows.	No	
15-5	08.12	15-06	Patient came to B7 later than planned due to personal circumstances. 1506 2 days late	Visits windows	Patient	No	No	It was discussed with the principal investigator that patients needed to be instructed about the visit windows in more detail and asked to	No	

1	2	3	4	5	6	7	8	9	10	11
								better follow these windows.		
15-5	08.12	15-07	Patient came to B7 later than planned due to personal circumstances. 1507 2 days late	Visits windows	Patient	No	No	It was discussed with the principal investigator that patients needed to be instructed about the visit windows in more detail and asked to better follow these windows.	No	
15-5	08.12	15-09	Patient came to B7 later than planned due to personal circumstances. 1509 2 days late	Visits windows	Patient	No	No	It was discussed with the principal investigator that patients needed to be instructed about the visit windows in more detail and asked to better follow these windows.	No	
15-5	08.12	15-12	Patient came to B7 later than planned due to personal circumstances. 1512 4 days late	Visits windows	Patient	No	No	It was discussed with the principal investigator that patients needed to be instructed about the visit windows in more detail and asked to better follow these windows.	No	
15-5	08.12	15-15	Patient came to B7 later than planned due to personal circumstances. 1515 12 days late	Visits windows	Patient	No	No	It was discussed with the principal investigator that patients needed to be	No	

1	2	3	4	5	6	7	8	9	10	11
								instructed about the visit windows in more detail and asked to better follow these windows.		
18-2	10.12	18-04	The patient did not have an FRC body plethysmography score on B6 for technical reasons.	Protocol procedures	Investigator	No	No	No	No	
18-2	10.12	18-03	The patient did not have an FRC body plethysmography score on B6 for technical reasons.	Protocol procedures	Investigator	No	No	No	Yes	
18-2	10.12	18-02	The patient did not have an FRC body plethysmography score on B6 for technical reasons.	Protocol procedures	Investigator	No	No	No	No	
18-2	10.12	18-01	The patient did not have an FRC body plethysmography score on B4 for technical reasons.	Protocol procedures	Investigator	No	No	No	Yes	
18-2	10.12	18-02	Patient did not have sodium parameter in BC on B1 due to technical reasons	Protocol procedures	Other	No	No	No	No	
16-2	04.12	16-06	Patient 16-06 on Visits 1, 2, 4 did not have pH determined as part of the general urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-06	Patient 16-06 on Visit 7 did not have transparency and color determined as part of the general urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No		No	
16-2	04.12	16-01	Patient 16-01 on Visits 1, 2, 4, 6, 7 did not have gamma-glutamyltransferase levels	Protocol procedures	Investigator	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
			determined as part of the biochemical blood test due to technical reasons.							
16-2	04.12	16-02	Patient 16-02 on Visits 1, 2, 4, 6, 7 did not have gamma-glutamyltransferase levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-03	Patient 16-03 on Visits 1, 2, 4, 6, 7 did not have gamma-glutamyltransferase levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-04	Patient 16-04 on Visits 1, 2, 4, 6, 7 did not have gamma-glutamyltransferase levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-05	Patient 16-05 on Visits 1, 2, 4, 6, 7 did not have gamma-glutamyltransferase levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-06	Patient 16-06 on Visits 1, 2, 4, 6, 7 did not have gamma-glutamyltransferase levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-01	Patient 16-01 on Visit 4 did not have potassium levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-02	Patient 16-02 on Visit 6 did not have potassium, sodium, chlorine levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
16-2	04.12	16-05	Patient 16-05 on Visit 6 did not have creatine phosphokinase, alkaline phosphatase levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-06	Patient 16-06 on Visit 6 did not have creatine phosphokinase, alkaline phosphatase levels determined as part of the biochemical blood test due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-06	Patient 16-06 on Visit 4 did not have a complete blood count and biochemical blood count due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-01	Patient 16-01 on Visit 4 did not have an erythrocyte sedimentation rate determination as part of the general blood test for technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-05	Patient 16-05 on Visit 4 did not have an erythrocyte sedimentation rate determination as part of the general blood test for technical reasons.	Protocol procedures	Investigator	No	No	No	No	
16-2	04.12	16-06	Patient 16-06 on Visit 4 did not have an erythrocyte sedimentation rate determination as part of the general blood test for technical reasons.	Protocol procedures	Investigator	No	No	No	No	
9-2	29.10	09-03	Patient 09-03 made visit 6 a day later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was re-discussed with the investigators to instruct patients on the timing of visits in order to avoid deviations.	No	

1	2	3	4	5	6	7	8	9	10	11
9-3	27.11	09-01	Patient 09-01 made visit 7 two days later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was re-discussed with the investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
9-3	27.11	09-01	Patients 09-01 on visits 1, 2, 4, 6, 7 did not have haemoglobin levels determined as part of their urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
9-3	27.11	09-03	Patients 09-03 on visits 1, 2, 4, 6, 7 did not have haemoglobin levels determined as part of their urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
9-3	27.11	09-02	Patients 09-02 on visits 1, 2, did not have haemoglobin levels determined as part of their urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
5-3	08.12	05-02	Patient made visit 7 two days later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with the investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
11-3	07.12	11-03	Patient 11-03 made visit 7 two days later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with the investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
11-3	07.12	11-09	Patient 11-09 made visit 7 two days later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with the investigators to instruct patients on the	No	

1	2	3	4	5	6	7	8	9	10	11
								timing of visits in order to avoid deviations.		
11-3	07.12	11-17	Patient 11-17 made visit 7 two days later than the window of the visit envisaged by the schedule of procedures	Visits windows	Patient	No	No	It was discussed with the investigators to instruct patients on the timing of visits in order to avoid deviations.	No	
11-3	07.12	11-01	Patient 11-01 did not have a bacterial count on Visits 1, 2, 7 and did not have a haemoglobin count on Visit 2 as part of the urinalysis for technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-02	Patient 11-02 did not have a bacterial count on Visits 1, 2, 4, 7 and did not have a haemoglobin count on Visits 2 and 7 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-03	Patient 11-03 did not have a bacterial count on Visits 1, 2, 4, 7 and did not have a haemoglobin count on Visits 1 and 7 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-04	Patient 11-04 did not have a bacterial count on Visits 1, 4, 7 and did not have a haemoglobin count on Visits 1 and 7 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-05	Patient 11-05 did not have a bacterial count on Visits 2, 6 and did not have a haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
11-3	07.12	11-06	Patient 11-06 did not have a bacterial count on Visits 1, 2 and did not have a haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-07	Patient 11-07 did not have a bacterial count on Visits 1, 4, 7 and did not have a haemoglobin count on Visits 1, 2 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-08	Patient 11-08 did not have a bacterial count on Visits 1, 2, 4, 7 and did not have a haemoglobin count on Visits 1, 2 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-09	Patient 11-09 did not have a bacterial count on Visits 2, 6, 7 and did not have a haemoglobin count on Visit 7 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-10	Patient 11-10 did not have a bacterial count on Visits 1, 6, 7 and did not have a haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-11	Patient 11-11 did not have a bacterial count on Visits 1, 2, 6, 7 and did not have a haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-12	Patient 11-12 did not have a bacterial count on Visits 1, 2, 7 and did not have a haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-13	Patient 11-13 did not have a bacterial count on Visits 1, 4, 7 and did not have a	Protocol procedures	Investigator	No	No	No	No	

1	2	3	4	5	6	7	8	9	10	11
			haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.							
11-3	07.12	11-14	Patient 11-14 did not have a bacterial and haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-15	Patient 11-15 did not have a bacterial and haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-16	Patient 11-16 did not have a bacterial count on Visits 2, 7 and did not have a haemoglobin count on Visit 7 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-17	Patient 11-17 did not have a bacterial count on Visits 1, 2, 6 and did not have a haemoglobin count on Visit 1 as part of the urinalysis due to technical reasons.	Protocol procedures	Investigator	No	No	No	No	
11-3	07.12	11-17	Patient 11-17 treated with prohibited therapy during the study (dexamethasone 0.3 ml parabulbar) as part of treatment for a serious adverse event	Other	Investigator	No	No	The investigators were interviewed about the prohibited therapy in the study	No	

^{*}Date of the deviation: all of the trials in the table were conducted in 2020

Table S5. Rate of relative DLCO and FVC changes in mITT and PPS populations as n (%) and primary efficacy outcome evaluation.

	Relative	e FVC chang	ge in placeb o	o group	Relative F	VC change	in Treamid	group
Population	Decrease or		Increase:		Decrease or		Increase:	
	no change	<5%	5-10%	≥10%	no change	<5%	5-10%	≥10%
mITT	14 (47%)	4 (13%)	7 (23%)	5 (17%)	11 (38%)	4 (14%)	7 (24%)	7 (24%)
PPS	13 (52%)	3 (12%)	5 (20%)	4 (16%)	10 (40%)	2 (8%)	6 (24%)	7 (28%)
	Relative	DLCO chan	ge in place b	oo group	Relative D	LCO change	e in Treami	d group
	Decrease or		Increase:		Decrease or		Increase:	
	no change	<15%)	≥15%	no change	<15%)	≥15%
mITT	7 (23.3%)	19 (63.3	%)	4 (13.3%)	8 (28%)	11 (38%	6) 1	0 (34%)
PPS	7 (28%)	14 (56%	(0)	4 (16%)	6 (24%)	10 (40%	(o)	9 (36%)
		'		Primary effic	acy outcome			
	(≥1	0% increase	in FVC or [5–10% increa	se in FVC and \geq	15% increas	se in DLCO)
mITT	P	lacebo: 5 ou	t of 30 (17%	(a)	Trea	mid : 12 ou	t of 29 (41%	b)
				p-value =	$0.036 (\chi^2)$			
PPS	P	lacebo: 4 ou	t of 25 (16%	(a)	Trea	mid : 11 ou	t of 25 (44%	5)
113				p-value =	$= 0.031 (\chi^2)$			

References

- 1. Brooks S.M. Task group on surveillance for respiratory hazards in the occupational setting. Surveillance for respiratory hazards. ATS News 1982; 8: 12-16.
- 2. Am Rev Respir Dis. 126(5), Burdon, et al. The perception of breathlessness in asthma, 825–828; Copyright (1982)
- 3. Patel, Amit S., et al. The development and validation of the King's Brief Interstitial Lung Disease (K-BILD) health status questionnaire. *Thorax* 67.9 (2012): 804-810.
- 4. Salorinne Y. Single breath pulmonary diffusing capacity; Reference values and application in connective tissue diseases and in various lung diseases. Scand J Respir Dis 56:165. 1975.
- 5. Hankinson JL, Odencrantz JR, Fedan KB. Spirometric reference values from a sample of the general US population. *Am J Respir Crit Care Med.* 1999;159(1):179-87.
- 6. Hankinson JL, Odencrantz JR, Fedan KB. Spirometric reference values from a sample of the general US population. *Am J Respir Crit Care Med.* 1999;159(1):179-87.
- 7. Respiration 2015;89:226–234.
- 8. Quanjer PH, Tammeling GJ, Cotes JE, Pedersen OF, Peslin R, Yernault JC. Lung volumes and forced ventilatory flows. *Eur Respir J.* 1993;6(Suppl 16):5–40