

Figure S1 Flow chart of this study. Some excluded patients met duplicated criteria, such as those with rheumatic disease-associated ILD lacking either chest CT or PFTs. IPF, idiopathic pulmonary fibrosis; HIRA, Health Insurance Review and Assessment Service; CT, computed tomography; PFT, pulmonary function test; PR, pulmonary rehabilitation.

Table S1 ICD-10 diagnostic codes for excluding patients with ILD other than IPF

Description	ICD-10 code
Rheumatic disease or vasculitis	
Rheumatoid lung disease	M0510
Rheumatoid vasculitis	M052
Rheumatoid arthritis (RA)	M053
Seropositive RA	M058, M059, M060, M068, M069
Polyarteritis with lung involvement	M30.1
Goodpasture's syndrome	M31.0
Wegener's granulomatosis	M31.3
Microscopic polyangiitis	M31.7
Systemic lupus erythematosus (SLE)	M32
Polymyositis	M33.2
Dermatomyositis	M33.9
Systemic sclerosis	M34
Sjogren's syndrome	M350
Mixed connective tissue disease (MCTD)	M351
Ankylosing spondylitis	M45.9

Table S1 (continued)

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Description	ICD-10 code
Other diffuse lung parenchymal disease	
Coal workers' pneumoconiosis	J60
Asbestosis	J61
Pneumoconiosis due to other silica or silicates	J62.8
Pneumoconiosis due to other inorganic dust	J63.0-63.6
Pneumoconiosis, unspecified	J64
Pneumoconiosis due to inhalation of other dust	J66.8
Extrinsic allergic alveolitis	J67.9
Chronic respiratory conditions due to fumes or vapors	J68.4
Chronic and other pulmonary manifestations due to radiation	J70.1
Respiratory conditions due to other specified external agents	J70.8
Idiopathic non-specific interstitial pneumonia	J84.113
Acute interstitial pneumonia	J84.114
Respiratory bronchiolitis interstitial lung disease	J84.115
Cryptogenic organizing pneumonia	J84.116
Desquamative interstitial pneumonia	J84.117
Pulmonary eosinophilia	J82
Chronic eosinophilic pneumonia	J82.81
Pulmonary alveolar microlithiasis	J84.02
Idiopathic pulmonary hemosiderosis	J84.03
Pulmonary alveolar proteinosis (PAP)	J84.01
Sarcoidosis of lung	D86
Lymphangioleiomyomatosis (LAM)	J84.81
Pulmonary Langerhans cell histiocytosis	C96, C96.5, C96.9
Neurofibromatosis	Q85.00
Tuberous sclerosis	Q85.1
Lipidoses	E75.21-75.22
Amyloidosis	E85.9
Lung involvement in other diseases classified elsewhere	J99

ICD, international classification of disease; ILD, interstitial lung disease; IPF, idiopathic pulmonary fibrosis.

Table S2 Insurance policies for pulmonary rehabilitation in National Health Insurance (NHI) in South Korea

Category	Details
Indications	In cases of respiratory symptoms including dyspnea or difficulties in daily activities among patients in the following categories <ol style="list-style-type: none"> 1. Chronic obstructive pulmonary disease (COPD), asthma, bronchiectasis 2. Interstitial lung disease (ILD), tuberculosis-related lung disease, pulmonary artery hypertension 3. Lung cancer and pre-/post-lung cancer surgery, pre-/post-lung transplantation, pre-/post lung volume reduction surgery, pre-/post-thoracic and abdominal surgery 4. Chest wall deformity that may result in restrictive lung disease (e.g., scoliosis, kyphosis)
Resources	Medical doctor, physical therapist, nurse
Time required	60 minutes
Approach	Based on the evaluation results of the patient, the doctor will prescribe an individualized exercise program, taking into consideration the patient's exercise capacity, degree of breathlessness, underlying conditions, and comorbidities <ul style="list-style-type: none"> - Aerobic exercise: perform exercise at an intensity of 60% or more of maximum exercise capacity for 20-60 minutes, 3-5 times per week. For patients unable to perform high-intensity exercise, low intensity exercise should be implemented - Weight training: Perform 1 set of 10 or more repetitions at an intensity of 60-70% of maximum strength, repeating the set 2-3 times
Program composition	<ol style="list-style-type: none"> 1. Warm-up: 5-10 minutes of low (<40% of maximum oxygen uptake) or moderate (40-60% of maximum oxygen uptake) intensity activities 2. Stretching: 10 minutes following the warm-up exercise 3. Main Exercise: Tailored to the patient's exercise capacity, includes 20-30 minutes of aerobic exercise (using an ergometer or treadmill), strength training at 60-80% of the patient's maximum strength (10-15 repetitions per muscle group, 2-3 sets), and flexibility training (upper and lower body stretching) 4. Cool-down: 5-10 minutes of low (<40% of maximum oxygen uptake) or moderate (40-60% of maximum oxygen uptake) intensity cardiovascular and muscular endurance exercises
Equipment	transcutaneous oxygen saturation monitor, treadmill, bicycle ergometer, upper body bicycle ergometer, theraband set, dumbbell set, portable oxygen or wall-mounted oxygen, frequency modulated receiver bag

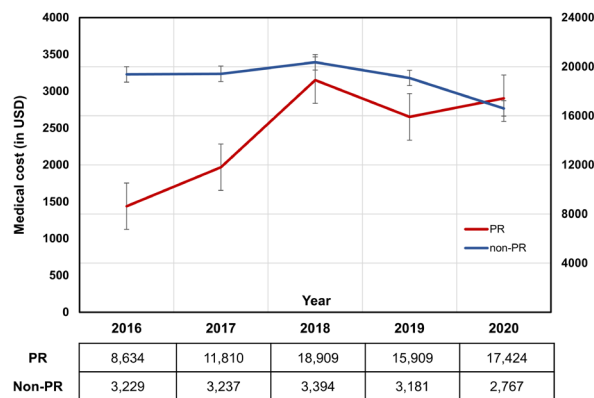


Figure S2 Differences in direct medical costs between PR and non-PR groups. Costs for the PR group are plotted against the right Y-axis (red line), while costs for the non-PR group are plotted against the left Y-axis (blue line). Error bar represents standard deviation of the mean cost for each group. PR, pulmonary rehabilitation.