

**Supplementary files**

**SUPPLEMENTARY TABLE S1.** Formulae to calculate the average of fibrosis grade points for each level and for all three levels

		<b>Fibrosis grade for upper level</b>	<b>Fibrosis grade for middle level</b>	<b>Fibrosis grade for lower level</b>
<b>Interpreted by radiologist</b>	Right lung	a	b	c
	Left lung	d	e	f
<b>Interpreted by pulmonologist</b>	Right lung	g	h	i
	Left lung	j	k	l
Average points for each level		$(a+d+g+j)/4$	$(b+e+h+k)/4$	$(c+f+i+l)/4$
Average points for three levels		$(a+b+c+d+e+f+g+h+i+j+k+l)/12$		

Grade points were allocated as follows: grade 0, 0%; grade 1, >0%–10%; grade 2, >10%–25%; grade 3, >25%–50%; grade 4, >50% of the fibrosis-occupied area.

**SUPPLEMENTARY TABLE S2.** Number of patients with other lung diseases included in the first dataset as part of the control dataset (disease control images) according to disease and learning or testing dataset inclusion

	Learning dataset	Testing dataset
	No. patients <sup>#</sup>	
Control	79	17
Lung cancer	33 <sup>¶</sup>	6
Pulmonary non-tuberculous mycobacteriosis	7	3
Sarcoidosis (without lung fibrosis)	5	3
COPD (with pulmonary emphysema)	7 <sup>+</sup>	1
Lung nodule	3	1
Pulmonary arteriovenous malformation	1	1
Bronchiectasis	2	0
Pleural plaque	1	0
Pulmonary aspergilloma	0	1
Pulmonary lymphangioliomyomatosis	1	0
Pulmonary tuberculosis	1	0
Allergic bronchopulmonary	1 <sup>§</sup>	0

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aspergillosis		
No abnormal findings	20	1
Bronchial asthma	17 <sup>¶</sup> + <sup>§</sup>	1
Cough variant asthma	3	0

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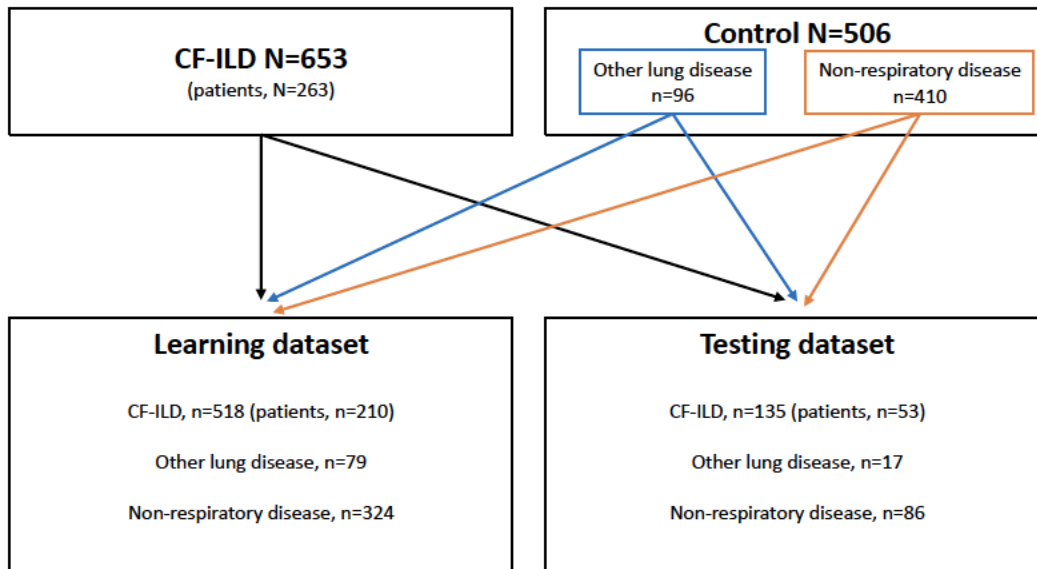
COPD, chronic obstructive pulmonary disease; CR, chest radiography.

#The control dataset included one CR from each patient. <sup>¶</sup>Lung cancer and bronchial asthma overlapped in one patient. <sup>+</sup>COPD and bronchial asthma overlapped in one patient. <sup>§</sup>Allergic bronchopulmonary aspergillosis and bronchial asthma overlapped in one patient.

**SUPPLEMENTARY TABLE S3.** Number of CT images according to the average of fibrosis grade points ( $\leq 1$ ,  $>1-2$ ,  $>2-3$ ,  $>3$ ) for each level and for the three levels combined.

<b>Average of grade points</b>	<b><math>\leq 1</math></b>	<b><math>&gt;1-2</math></b>	<b><math>&gt;2-3</math></b>	<b><math>&gt;3</math></b>
Upper level	284	61	14	8
Middle level	240	83	31	13
Lower level	135	121	56	55
Three levels	186	127	46	8

**SUPPLEMENTARY FIGURE S1.** Flow chart of chest radiographs included in the first dataset (includes the learning dataset and the testing dataset).



**SUPPLEMENTARY FIGURE S2.** Example CT images for each of the five grades (grade 0, 0%; grade 1, >0%–10%; grade 2, >10%–25%; grade 3, >25%–50%; grade 4, >50% of the fibrosis-occupied lung area) from patients with chronic fibrosing interstitial lung disease-suspected/ diagnosed in the second dataset.

