

Table S1 Univariate Cox regression analysis of the clinical features in patients with idiopathic pulmonary fibrosis

| | HR | 95% CI | P |
|-----------------------------------|-----------|-------------|--------|
| Age | 1.039 | 1.018–1.061 | <0.001 |
| FVC% | 0.981 | 0.970–0.992 | 0.001 |
| FEV1% | 0.977 | 0.966–0.989 | <0.001 |
| DLCO% | 0.968 | 0.956–0.980 | <0.001 |
| FVC absolute change in 12 months | 0.983 | 0.971–0.995 | 0.006 |
| DLCO absolute change in 12 months | 0.988 | 0.977–0.998 | 0.020 |
| Gender, female | Reference | | |
| Male | 1.619 | 1.071–2.447 | 0.022 |
| Ever-smoker | 1.162 | 0.798–1.692 | 0.433 |
| Dyspnea | 1.088 | 0.716–1.653 | 0.693 |
| Cough | 0.654 | 0.454–0.943 | 0.023 |
| Oxygen therapy | 0.843 | 0.580–1.224 | 0.368 |

P value <0.05 regarded as significant. HRCT, high-resolution computed tomography; HR, hazard ratio; CI, confidence interval; FVC%, forced vital capacity percent predicted; FEV1%, forced expiratory volume in one second percent predicted; DLCO%, diffusion capacity to carbon monoxide percent predicted.

Table S2 Median survival in patients with IPF in the presence of specific HRCT patterns according to the unadjusted Kaplan-Meier estimator analysis

| Radiological pattern | Median survival in months (95% CI) | Log Rank P |
|----------------------------------|------------------------------------|------------|
| Honeycombing: no/yes | 75 (54.3–95.7)/37 (27.7–46.3) | 0.001 |
| Traction bronchiectasis: no/yes | 67 (45.2–88.8)/37 (28.3–45.7) | 0.021 |
| Emphysema: no/yes | 52 (37.2–66.8)/36 (27.4–44.6) | 0.006 |
| Architectural distortion: no/yes | 59 (43.1–74.9)/32 (22.0–42.0) | <0.001 |
| Possible UIP/UIP | 56 (29.5–82.5)/37 (28.0–46.0) | 0.032 |

P value <0.05 regarded as significant. IPF, idiopathic pulmonary fibrosis; HRCT, high resolution computed tomography; CI, confidence interval; UIP, usual interstitial pneumonia.

Table S3 Correlations between the extent of HRCT patterns and selected features in patients with IPF according to Spearman's correlation coefficient

| | Traction bronchiectasis Score | Honeycombing Score | Architectural distortion Score | Reticulation Score | GGO Score | Emphysema Score |
|---------------------|-------------------------------------|-----------------------|--------------------------------------|-----------------------|--------------|--------------------|
| FVC% | -0.187* | -0.225* | -0.193* | -0.281** | -0.059 | 0.240** |
| FEV1% | -0.196* | -0.275** | -0.235** | -0.150 | 0.021 | 0.094 |
| DLCO% | -0.347*** | -0.284** | -0.298** | -0.279** | -0.039 | -0.083 |
| FVC6 [†] | 0.257* | 0.036 | -0.129 | 0.113 | -0.081 | -0.111 |
| DLCO12 [‡] | -0.245* | -0.152 | -0.157 | 0.104 | 0.072 | -0.034 |
| DLCO12 [§] | 0.197 | 0.232* | 0.177 | -0.081 | -0.046 | 0.023 |
| Ever-smoker | -0.064 | 0.206* | 0.207* | -0.141 | -0.106 | 0.280** |
| Gender | 0.127 | 0.289** | 0.253** | -0.051 | -0.081 | 0.208* |
| ReHosp | 0.008 | -0.077 | 0.027 | 0.125 | 0.120 | -0.191* |
| UIP | 0.401*** | 0.742*** | 0.419*** | -0.202* | -0.522*** | 0.233** |
| GGO | -0.184* | -0.364*** | -0.249** | 0.443*** | 1.000 | -0.224* |
| HC | 0.645*** | 1.000 | 0.680*** | -0.105 | -0.364*** | 0.205* |
| Ret | 0.180* | -0.105 | -0.147 | 1.000 | 0.443*** | -0.284** |
| Em | 0.003 | 0.205* | 0.289** | -0.284** | -0.224* | 1.000 |
| TX | 1.000 | 0.645*** | 0.617*** | 0.180* | -0.184* | 0.003 |
| AD | 0.617*** | 0.680*** | 1.000 | -0.147 | -0.249** | 0.289** |

*, P<0.05; **, P<0.01; ***, P<0.001; †, classified change in six months; ‡, absolute change in 12 months; §, classified change in 12 months. IPF, idiopathic pulmonary fibrosis; HRCT, high resolution computed tomography; GGO, ground glass opacity; FVC%, forced vital capacity percent predicted; FEV1%, forced expiratory volume in one second percent predicted; DLCO%, diffusion capacity to carbon monoxide percent predicted; ReHosp, hospitalization due to respiratory reasons (yes/no); UIP, usual interstitial pneumonia; HC, honeycombing; Ret, reticulation; Em, emphysema; TX, traction bronchiectasis; AD, architectural distortion.

Table S4 The extent of specific HRCT patterns in patients with IPF categorized according to gender and different smoking habits

| Feature | Female | Male | Non-smoker | Ever-smoker |
|--------------------------|-----------------|------------------|-----------------|------------------|
| Reticulation | 9.06±2.6 (3–13) | 8.89±3.3 (0–19) | 9.40±2.3 (4–13) | 8.73±3.4 (0–19) |
| Traction bronchiectasis | 2.83±2.6 (0–10) | 3.68±2.9 (0–13) | 3.74±3.1 (0–13) | 3.27±2.8 (0–12) |
| Honeycombing | 2.12±2.8 (0–10) | 4.18±3.6 (0–14)* | 2.63±3.2 (0–14) | 4.03±3.6 (0–13)* |
| Architectural distortion | 0.89±1.7 (0–6) | 2.34±3.2 (0–14)* | 1.20±2.1 (0–8) | 2.34±3.3 (0–14)* |
| GGO | 4.13±5.4 (0–18) | 2.94±3.9 (0–16) | 4.05±4.9 (0–18) | 2.91±4.0 (0–16) |
| Emphysema | 0.37±1.1 (0–4) | 1.82±3.6 (0–14)* | 0.50±2.0 (0–12) | 1.98±3.6 (0–14)* |

Score numbers are presented as mean ± SD (min–max). *, P<0.05. IPF, idiopathic pulmonary fibrosis; HRCT, high resolution computed tomography; GGO, ground glass opacity.