**Multi-dimensional assessment of idiopathic pulmonary fibrosis across a wide range of disease severity**

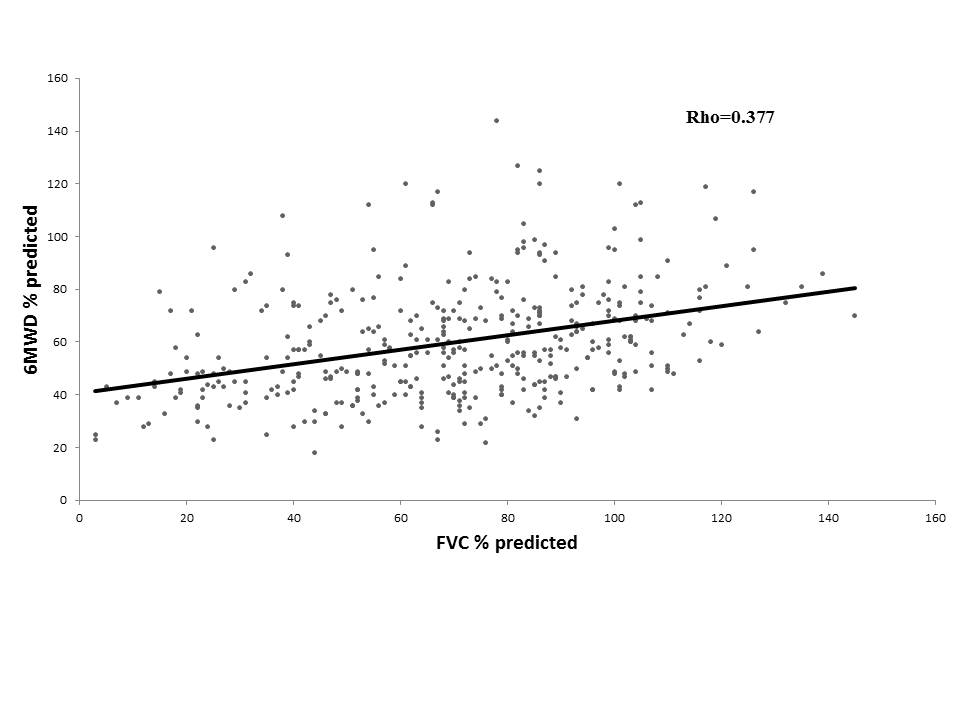
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**Supplemental Figure 1**.



**Supplemental Figure 1 legend**. Relationship between FVC (% pred) and 6MWD (% pred).

**SUPPLEMENTAL TABLES**

**Supplemental Table 1A**. Stepwise regression analysis: predictors of MRCDS.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **F ratio** | **p value** | **VIF** (with MRCDS) |
| **6MWD** (% pred | 45.6 | <0.0001 | 1.30 |
| **FVC** (% pred) | 19.3 | <0.0001 | 1.14 |
| **DLCO** (% pred) | 16.4 | <0.0001 | 1.20 |

**Supplemental Table 1B**. Stepwise regression analysis: predictors of 6MWD (% pred).

|  |  |  |  |
| --- | --- | --- | --- |
|  | **F ratio** | **p value** | **VIF** (with6MWD % pred) |
| **MRCDS** | 45.6 | <0.0001 | 1.30 |
| **DLCO** (% pred) | 23.5 | <0.0001 | 1.18 |
| **FVC** (% pred) | 11.3 | <0.0009 | 1.17 |

**Supplemental Table 1C**. Stepwise regression analysis (predictors of FVC % pred). DLCO % pred was not retained as a significant predictor.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **F ratio** | **p value** | **VIF** (withFVC  % pred) |
| **MRCDS** | 24.9 | <0.0001 | 1.33 |
| **6MWD** (% pred) | 19.2 | <0.0001 | 1.33 |

Abbreviations as in Table 1 and 2.

**Supplemental Table 2**. Multivariate regression analysis, independent predictors (ordinal variables with cutoffs identified by ROC analysis) of 18-month mortality.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Hazard Ratio** (C.I.) | **p value** | **Chi Square of the model** |
| **Model 1**   * **MRCDS >3** * **6MWD m ≤333** * **FVC % ≤58** | * 1.39 (1.05-1.83) * 1.71 (1.31-2.25) * 1.97 (1.50-2.59) | * 0.0206 * 0.0001 * < 0.0001 | 74.2 |
| **Model 1**   * **MRCDS >3** * **6MWD % ≤68** * **FVC % ≤58** | * 1.33 (1.01-1.75) * 1.92 (1.47-2.52) * 1.93 (1.47- 2.55) | * 0.0450 * < 0.0001 * < 0.0001 | 80.4 |
| **Model 2**   * **MRCDS >3** * **6MWD % ≤68** * **DLCO %≤37** | * 1.65 (1.21-2.23) * 2.05 (1.50-2.79) * 1.22 (0.67-1.66) | * 0.0015 * <0.0001 * n.s. | 50.9 |

\*VIF seen in table 3 were all very low suggesting independent predictive value of variables. Abbreviations as in Table 1 and 2.

**Supplemental Table 3**. Multivariate regression analysis, independent predictors (continuous variables) of 18-month mortality, in patients stratified according to FVC % pred.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Hazard Ratio** (C.I.) | **p value** | **Chi Square of the model** |
| **FVC <57% pred** (n=206)   * **MRCDS** * **6MWD** (m) * **FVC** (% pred) | * 1.08 (0.88-1.33) * 0.99 (0.99-0.99) * 0.98 (0.96-0.99) | * n.s. * <0.0001 * 0.0282 | 47.8 |
| **FVC ≥57% pred**  (n=231)   * **MRCDS** * **6MWD** (m) * **FVC** (% pred) | * 1.80 (1.42-2.30) * 0.99 (0.99-0.99) * 0.98 (0.96-0.99) | * <0.0001 * 0.0005 * 0.0018 | 67.2 |

**Supplemental Table 4.** Univariate regression analysis. Predictors of 18-month mortality, considering LTx as competing event.

|  |  |  |
| --- | --- | --- |
| **Variables** | **Hazard Ratio** (C.I.) | **p value** |
| **Age**  **Age ≤70** | 1.04 (1.02-1.06)  0.63 (0.42-0.95) | <0.0001  0.0260 |
| **BMI**  **BMI ≤28** | 0.96 (0.92-1.01)  1.28 (0.86-1.90) | n.s.  n.s. |
| **MRCDS**  **MRCDS >3** | 2.18 (1.70-2.78)  4.01 (2.74-6.02) | <0.0001  <0.0001 |
| **6MWD m**  **6MWD m ≤333** | 0.99 (0.99-1.00)  3.99 (2.52-6.30) | <0.0001  <0.0001 |
| **6MWD** % pred  **6MWD ≤68** % pred | 0.97 (0.97-0.98)  3.12 (2.04-4.79) | <0.0001  <0.0001 |
| **FVC** % pred  **FVC ≤58** % pred | 0.99 (0.98-1.00)  1.40 (0.95-2.07) | <0.0001  n.s. |
| **DLCO** % pred  **DLCO ≤37** % pred | 0.95 (0.94-0.97)  4.47 (2.76-7.24) | <0.0001  <0.0001 |

n.s. = not significant. Abbreviations as in Table 1.

**Supplemental Table 5A**. Multivariate regression analysis, independent predictors (continuous variables) of 18-month mortality, considering LTx as competing event.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Hazard Ratio** (C.I.) | **p value** | **Chi Square**  **of the model** |
| **Model 1**   * **MRCDS** * **6MWD** (m) * **FVC** (% pred) | * 1.60 (1.19-2.14) * 0.99 (0.99-1.00) * 1.00 (0.99-1.01) | * 0.002 * <0.001 * n.s. | 57.3 |
| **Model 2**   * **MRCDS** * **6MWD** (% pred) * **FVC** (% pred) | * 1.70 (1.27-2.29) * 0.98 (0.97-0.99) * 1.01 (1.00-1.02) | * <0.001 * <0.001 * n.s. | 50.1 |
| **Model 3**   * **MRCDS** * **6MWD** (% pred) * **DLCO** (% pred) | * 1.84 (1.33-2.54) * 0.99 (0.98-1.00) * 0.98 (0.97-1.00) | * <0.001 * 0.011 * 0.060 | 55.3 |

n.s. = not significant. Abbreviations as in Table 1.

**Supplemental Table 5B**. Multivariate regression analysis, independent predictors (ordinal variables with cutoffs identified by ROC analysis) of 18-month mortality, considering LTx as competing event.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Hazard Ratio** (C.I.) | **p value** | **Chi Square**  **of the model** |
| **Model 1**   * **MRCDS >3** * **6MWD m ≤333** * **FVC % ≤58** | * 2.72 (1.75-4.21) * 2.88 (1.75-4.74) * 0.81 (0.52-1.26) | * <0.0001 * <0.0001 * n.s. | 51.1 |
| **Model 2**   * **MRCDS >3** * **6MWD % ≤68** * **FVC % ≤58** | * 2.91 (1.87-4.52) * 2.23 (1.37-3.65) * 0.79 (0.50-1.26) | * <0.0001 * 0.001 * n.s. | 46.2 |
| **Model 3**   * **MRCDS >3** * **6MWD % ≤68** * **DLCO % ≤37** | * 2.83 (1.75-4.59) * 1.52 (0.91-2.55) * 2.43 (1.39-4.22) | * <0.0001 * n.s. * 0.002 | 57.6 |

Abbreviations as in Table 1.