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FVC variability in patients with idiopathic pulmonary fibrosis and role of 6-min walk test to predict further change

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Variability in 3-month changes in FVC was examined in 954 patients with IPF (n=3966 observations) from phase 3 trials; concurrent 3-month decline in the FVC and 6MWD (n=1321 observations) predicted further decline in FVC over the subsequent 3 months http://bit.ly/2GfBKW3

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To the Editor:

Disease progression in idiopathic pulmonary fibrosis (IPF) is monitored by decline in forced vital capacity (FVC) [1]. An absolute or relative decline in % predicted FVC ⩾10% is associated with mortality [2, 3]. Measures of FVC decline were selected as primary endpoints in the pivotal phase 3 trials of antifibrotic therapies [4–6]. Despite consistent trends for FVC decline in the IPF population, the rate of disease progression in individuals is unpredictable and highly variable: significant variability in FVC is observed over time, and prior declines are a poor predictor of future FVC decline [1, 7, 8]. In new trials in IPF, the margin for reducing FVC decline is smaller (~70 mL) in patients who are receiving an investigational drug with background antifibrotics than in the placebo arms of past trials (130–210 mL) [9].