Effect of nintedanib on FVC decline in patients with progressive fibrosing ILDs: data from the INBUILD® trial

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Introduction

- In patients with chronic fibrosing ILDs and a progressive phenotype, decline in forced vital capacity (FVC) is predictive of mortality.[1-4]
- In the INBUILD trial in subjects with progressive fibrosing ILDs other than idiopathic pulmonary fibrosis (IPF), nintedanib slowed the rate of decline in FVC (mL/year) over 52 weeks by 57% versus placebo (difference 107.0 mL/year [95% CI: 65.4, 148.5]).[5]

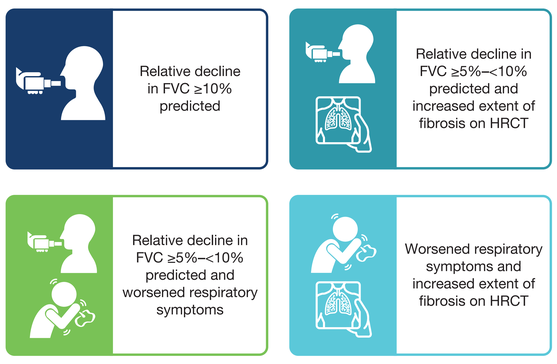
Aim

- We assessed the effect of nintedanib on categorical changes in FVC in the INBUILD trial.

Methods

Trial design[5]

- Subjects had an ILD other than IPF, diagnosed by the investigator according to their usual clinical practice, reticular abnormality with traction bronchiectasis (with or without honeycombing) of >10% extent on HRCT, FVC ≥45% predicted and DLco ≥30%–<80% predicted.
- Subjects met ≥1 of the following criteria for ILD progression in the 24 months before screening, despite management as deemed appropriate in clinical practice:



- Subjects were randomized 1:1 to receive nintedanib 150 mg bid or placebo, stratified by HRCT pattern (usual interstitial pneumonia [UIP]-like fibrotic pattern or other fibrotic patterns). For each subject, the trial consisted of two parts. Part A was a 52-week treatment period. Part B was a variable treatment period beyond 52 weeks, during which subjects continued on blinded randomized treatment. The first database lock was performed after the last subject had completed 52 weeks.

Analyses

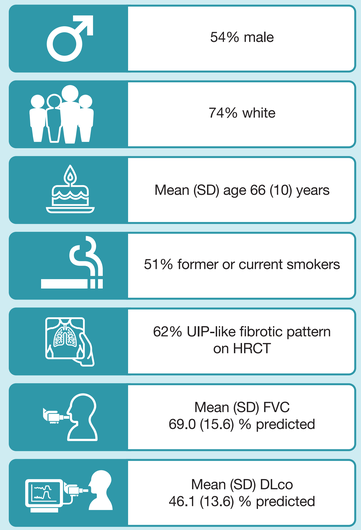
- In pre-specified analyses, we assessed:
  - Proportion of subjects with absolute and relative declines in FVC >5% and >10% predicted at week 52
  - Time to absolute decline in FVC ≥10% predicted or death up to first database lock
  - Time to first investigator-reported acute exacerbation of ILD or death up to first database lock.

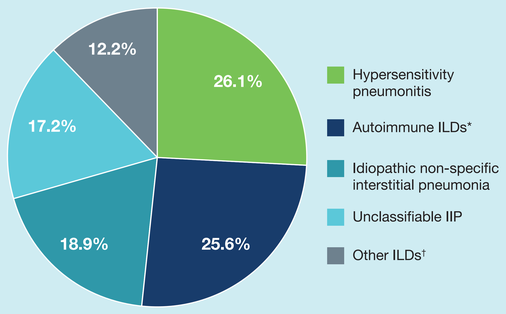
Results

Subjects

- A total of 663 subjects were treated in the INBUILD trial.

Baseline characteristics of subjects in the INBUILD trial



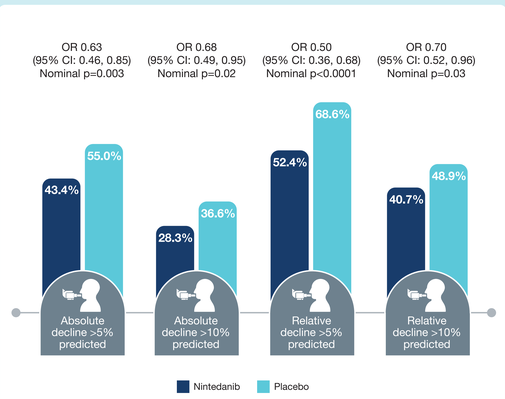


*Included RA-ILD, SSc-ILD, MCTD-ILD, plus autoimmune ILDs in "Other fibrosing ILDs" category of case report form.
†Included sarcoidosis, exposure-related ILDs and other terms in "Other fibrosing ILDs" category of case report form.

Categorical changes in FVC % predicted

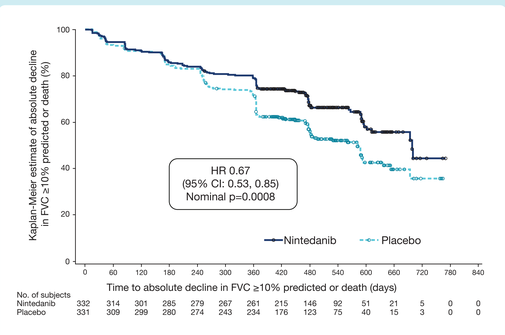
- At week 52, 27% of subjects in the nintedanib group and 13% of subjects in the placebo group had an increase or no decline in FVC % predicted.

Absolute and relative declines from baseline in FVC at week 52

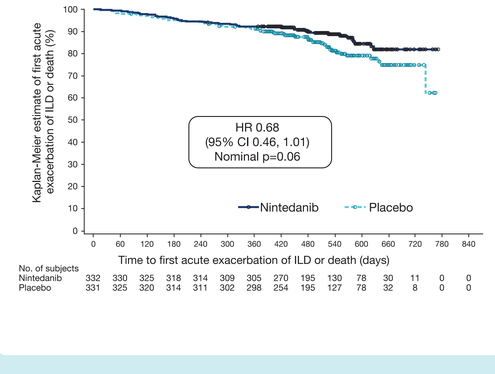


Percentages shown are the percentage of patients with the respective decline. Subjects with missing data were assumed to have had the respective decline (worst case analysis).

Time to absolute decline in FVC ≥10% predicted or death using data up to first database lock



Time to first acute exacerbation of ILD or death using data up to first database lock



Conclusions

- **In the INBUILD trial in subjects with progressive fibrosing ILDs other than IPF, fewer subjects treated with nintedanib than placebo had clinically relevant declines in FVC over 52 weeks.**
- **These results further support the benefit of nintedanib on slowing the progression of ILD in subjects with chronic fibrosing ILDs and a progressive phenotype.**

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Acknowledgements

The INBUILD trial was funded by Boehringer Ingelheim. Editorial and formatting assistance, supported financially by Boehringer Ingelheim, was provided by Julie Fleming and Wendy Morris of FleishmanHillard Fishburn, London, UK during preparation of this poster. The authors were fully responsible for all content and editorial decisions, were involved at all stages of poster development and have approved the final version. Boehringer Ingelheim was given the opportunity to review the poster for medical and scientific accuracy as well as intellectual property considerations. The authors received no direct compensation related to the development of this poster. Vincent Cottin reports research grants, personal fees, and non-financial support from Boehringer Ingelheim and Roche; personal fees from Bayer/Merck Sharp & Dohme, Celgene, Galapagos, Galecto, Gilead, Novartis, Promedior, and Sanofi; and personal fees and non-financial support from Actelion. Kevin Brown reports grants from NHLBI; personal fees from Biogen, Blade Therapeutics, Galapagos, Galecto Biotech, Huitai Biomedicine, Lifemax, Lilly, MedImmune, monARC Bionetworks, Pliant Therapeutics, ProMetic, Third Pole Therapeutics, Theravance, Three Lakes Partners, and Veracyte; personal fees and non-financial support from Boehringer Ingelheim; and other support from Genoa and the Open Source Imaging Consortium (OSIC).

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Poster developed for the American Thoracic Society International Conference, 2020.