

Effect of nintedanib on decline in forced vital capacity (FVC) in patients with progressive fibrosing interstitial lung diseases (ILDs) by time since diagnosis

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INTRODUCTION

- In the INBUILD trial in patients 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% compared with placebo, with adverse events that were manageable for most patients.¹
- For some ILDs, the risk of progression is greatest early in the course of disease.^{2,3}

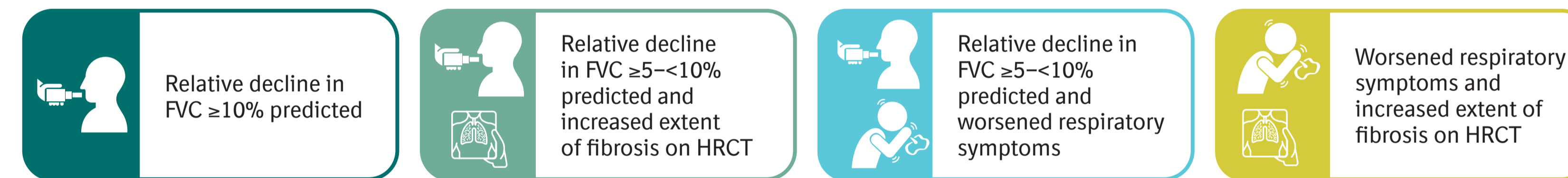
AIM

- To evaluate the efficacy and safety of nintedanib in subgroups by time since diagnosis of ILD in the INBUILD trial.

METHODS

Trial design¹

- Patients in the INBUILD trial had diffuse fibrosing ILD (reticular abnormality with traction bronchiectasis, with or without honeycombing) of >10% extent on HRCT, FVC ≥45% predicted, and DLco ≥30%–<80% predicted. Patients with IPF were excluded.
- Patients met ≥1 of the following criteria for ILD progression within the 24 months before screening, despite management deemed appropriate in clinical practice:



- Patients were randomized to receive nintedanib or placebo, stratified by HRCT pattern (usual interstitial pneumonia [UIP]-like fibrotic pattern or other fibrotic patterns).
- The primary endpoint was the rate of decline in FVC (mL/year) over 52 weeks. Patients continued to receive blinded randomized treatment until all subjects had completed the follow-up visit or entered the open-label extension study (INBUILD-ON).

Analyses

- In subgroups by time since diagnosis of ILD at randomization (≤1 year, >1 to ≤3 years, >3 to ≤5 years, >5 years), we analyzed *post-hoc* the rate of FVC decline (mL/year) over 52 weeks in the overall population and in patients with a UIP-like fibrotic pattern on HRCT, and the time to absolute decline in FVC ≥10% predicted or death over the whole trial in the overall population.
- Interaction p-values were calculated to assess potential heterogeneity in the treatment effect of nintedanib versus placebo between subgroups. No adjustment for multiplicity was made.

CONCLUSIONS

- In the INBUILD trial, nintedanib had a consistent effect on slowing the progression of ILD in patients with progressive fibrosing ILDs irrespective of the time since diagnosis of ILD.

Patients



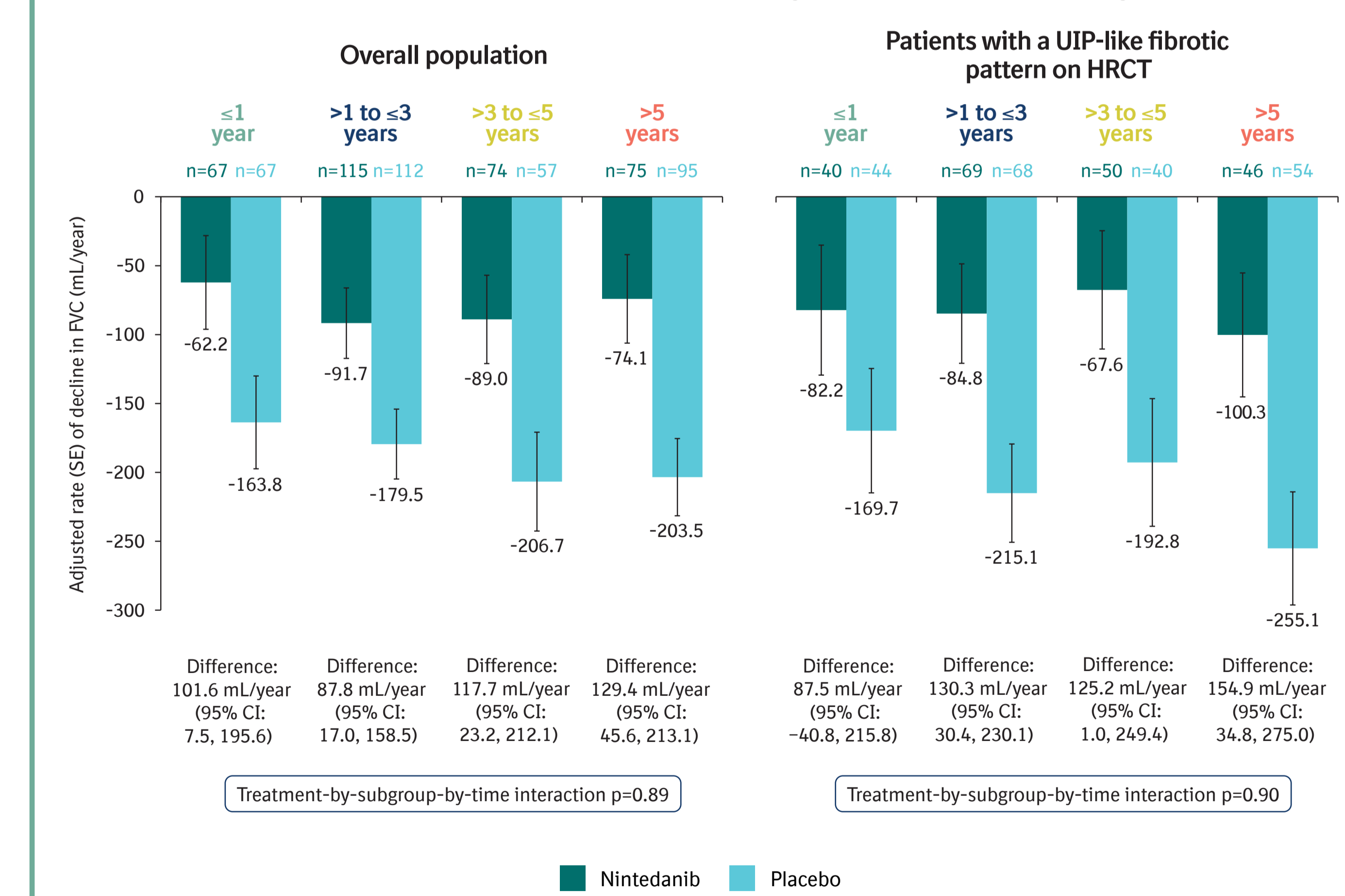
Baseline characteristics

	Time since diagnosis of ILD			
	≤1 year (n=134)	>1 to ≤3 years (n=227)	>3 to ≤5 years (n=131)	>5 years (n=170)
Mean age (years)	65.6	66.2	65.4	65.6
Male, %	56.7	57.3	55.0	45.9
Former or current smoker, %	47.8	52.0	57.3	47.6
Mean FVC % predicted	69.5	68.8	69.3	68.7
Mean DLco % predicted	47.4	46.6	46.6	44.0
UIP-like fibrotic pattern on HRCT, %	62.7	60.4	68.7	58.8

Rate of decline in FVC (mL/year) over 52 weeks

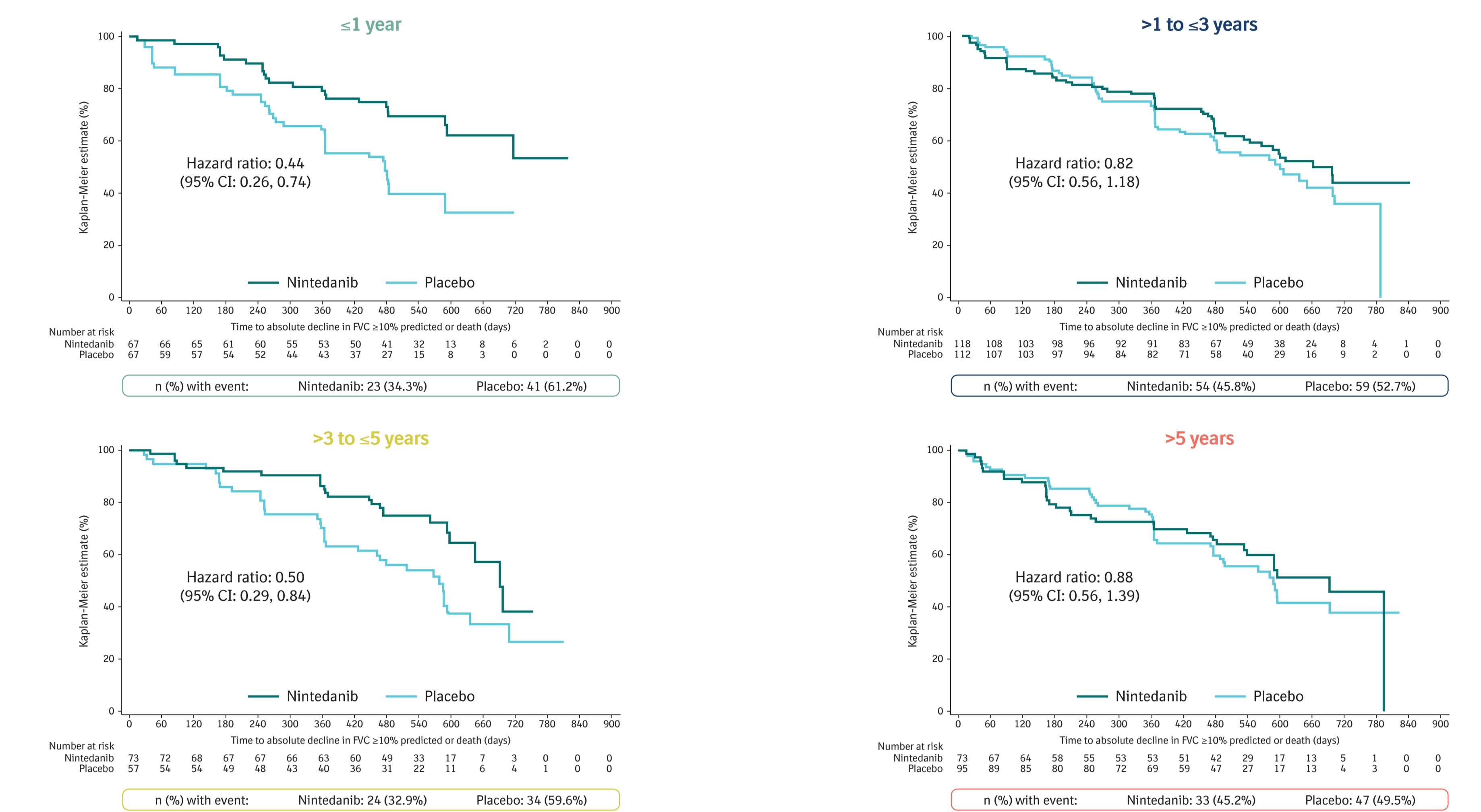
- No heterogeneity was detected in the treatment effect of nintedanib versus placebo between the subgroups by time since diagnosis of ILD.

Rate of decline in FVC (mL/year) over 52 weeks in subgroups by time since diagnosis of ILD



RESULTS

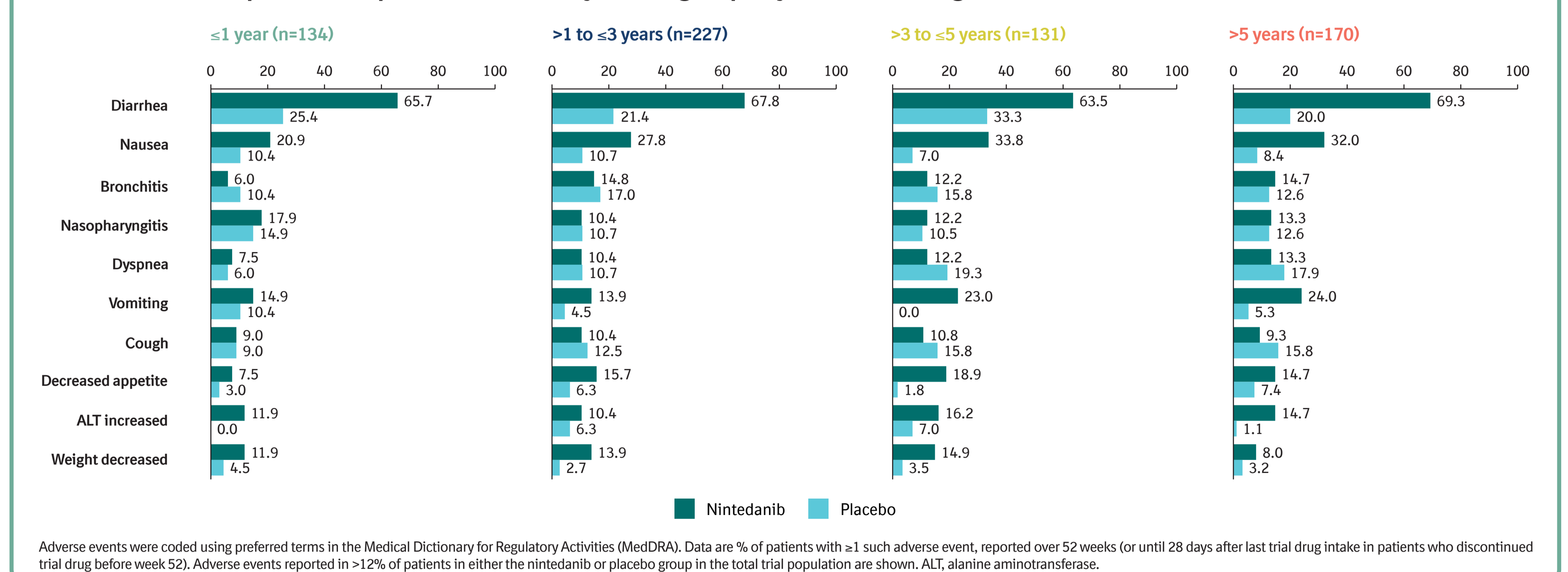
Time to absolute decline in FVC ≥10% predicted or death in subgroups by time since diagnosis of ILD (treatment-by-subgroup interaction p=0.09)



Adverse events

- The adverse event profile of nintedanib was generally consistent between the subgroups by time since diagnosis of ILD.

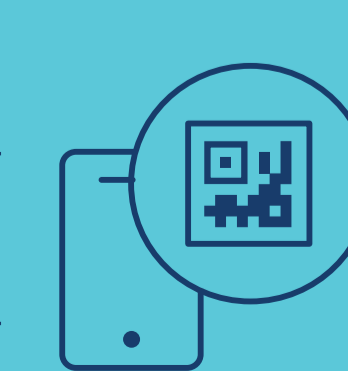
Adverse events (reported irrespective of causality) in subgroups by time since diagnosis of ILD



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