Continued treatment with nintedanib in patients with limited cutaneous systemic sclerosis (lcSSc) and interstitial lung disease (ILD)

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INTRODUCTION

- ILD is a common manifestation of lcSSc, which may become progressive.[1-3] Few data are available on the management of ILD, or on adverse events associated with drug treatment, in patients with lcSSc.
- Nintedanib is a tyrosine kinase inhibitor that inhibits pathways leading to pulmonary fibrosis.[4] In the SENSCIS trial in patients with SSc and an extent of fibrotic ILD on HRCT ≥10%, nintedanib reduced the rate of decline in forced vital capacity (FVC) compared with placebo, with adverse events that were manageable for most patients.[5]
- SENSCIS-ON (NCT03313180) is an open-label extension trial that is collecting data on decline in FVC and adverse events in patients treated with nintedanib over the long term.

AIM

- To assess the decline in FVC and adverse events in patients with lcSSc and ILD treated with nintedanib in SENSCIS-ON.

METHODS

- Patients in SENSCIS-ON came from two parent trials:

1 SENSCIS trial[5]

- Patients with SSc-ILD were randomised to receive blinded treatment with nintedanib or placebo
- Patients remained on treatment until the last patient had reached week 52 but for ≤100 weeks
- Patients who completed the trial on treatment and attended a follow-up visit were eligible to enter SENSCIS-ON

2 Open-label drug-drug interaction study of nintedanib and Microgynon (ethinylestradiol + levonorgestrel)[6]

- Female patients with SSc-ILD received nintedanib over a period of ≥14 days to approximately 28 days
- Patients who completed the study on treatment were eligible to enter SENSCIS-ON

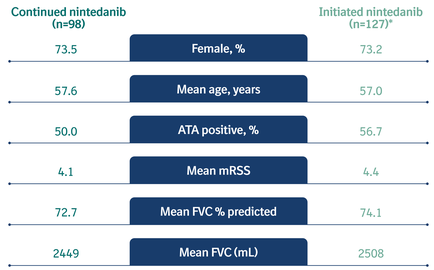
- Among patients with lcSSc, we analysed changes in FVC and adverse events over 52 weeks of SENSCIS-ON in:
  - Patients who had received nintedanib in the SENSCIS trial and continued nintedanib in SENSCIS-ON (**"continued nintedanib"** group)
  - Patients who received placebo in the SENSCIS trial and initiated nintedanib in SENSCIS-ON or who had received nintedanib for a short period in the drug-drug interaction study (**"initiated nintedanib"** group).

CONCLUSIONS

- Among patients with lcSSc and ILD who received nintedanib over 52 weeks of SENSCIS-ON, the change in FVC and the safety profile of nintedanib were similar to observations in patients with lcSSc and ILD who received nintedanib in SENSCIS.
- These analyses support a continued effect of nintedanib on targeting pulmonary fibrosis and slowing decline in FVC, and the ability to manage adverse events of nintedanib over the longer term in patients with lcSSc and ILD.

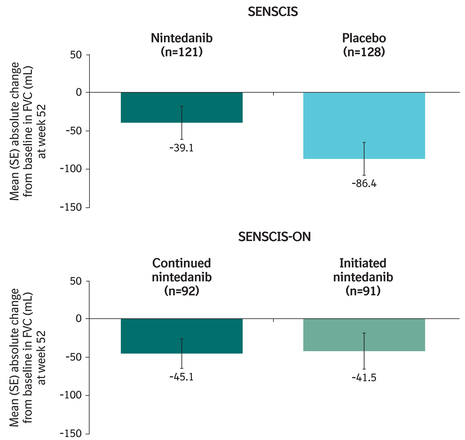
RESULTS

Baseline characteristics of patients with lcSSc at inclusion in SENSCIS-ON

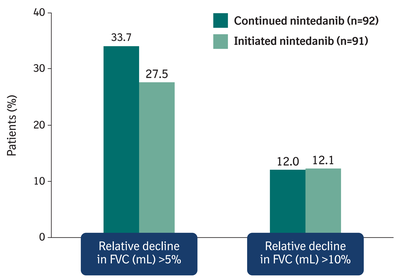


*n=114 from SENSCIS, n=13 from drug–drug interaction study.
ATA, anti-topoisomerase I antibodies; mRSS, modified Rodnan skin score. ATA status was determined at the start of the parent study.

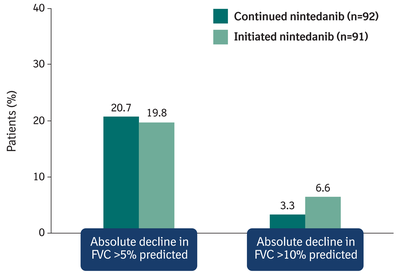
Change from baseline in FVC (mL) at week 52 in patients with lcSSc in SENSCIS and SENSCIS-ON



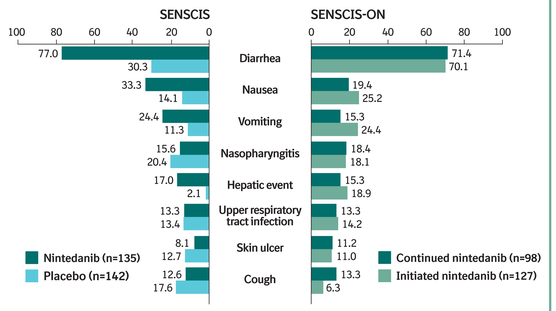
Proportions of patients with lcSSc with relative declines from baseline in FVC (mL) >5% and >10% over 52 weeks in SENSCIS-ON



Proportions of patients with lcSSc with absolute declines from baseline in FVC % predicted >5% and >10% over 52 weeks in SENSCIS-ON

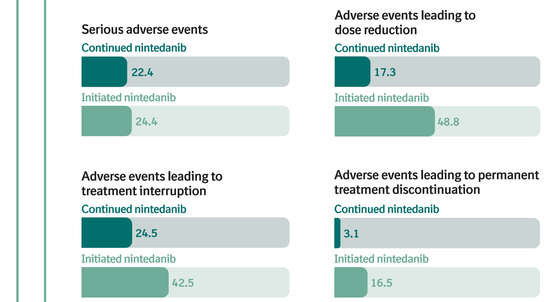


Adverse events over 52 weeks in patients with lcSSc in SENSCIS and SENSCIS-ON



Data are % of patients with ≥1 such event reported over 52 weeks (or until 28 days after last drug intake if earlier in SENSCIS or until 7 days after last trial drug intake if earlier in SENSCIS-ON). Adverse events reported in >10% of patients with lcSSc in either group in SENSCIS-ON are shown. Adverse events were based on single preferred terms in the Medical Dictionary for Regulatory Activities (MedDRA), except for hepatic events, which were based on the standardised MedDRA query 'liver related investigations, signs and symptoms' (broad definition).

Serious adverse events, dose adjustments and treatment discontinuations in patients with lcSSc over 52 weeks of SENSCIS-ON



Data are % of patients with ≥1 such event reported over 52 weeks (or until 7 days after last trial drug intake if earlier).
Serious adverse events were defined as events that resulted in death, were life-threatening, resulted in prolonged hospitalisation, resulted in persistent or clinically significant disability or incapacity, were a congenital anomaly or birth defect, or were deemed serious for any other reason.

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REFERENCES
1. Frantz C et al. Autoimmun Rev 2020;19:102452.
2. Simeón-Aznar CP et al. Semin Arthritis Rheum 2012;41:789–800.
3. Nihtyanova SI et al. Arthritis Rheumatol 2014;66:1625–35.
4. Wollin L. Eur Respir J 2019;54:1900161.
5. Distler O et al. N Engl J Med 2019;380:2518–2528.
6. Vonk MC et al. Eur J Drug Metab Pharmacokinet 2022;47:81–89.

ACKNOWLEDGEMENTS AND DISCLOSURES
The SENSCIS and SENSCIS-ON trials were supported by Boehringer Ingelheim International GmbH (BI). The authors meet criteria for authorship as recommended by the International Committee of Medical Journal Editors (ICMJE). The authors did not receive payment for the development of this poster. Elizabeth Ng of FleishmanHillard, London, UK, provided editorial and formatting assistance, which was contracted and funded by BI. BI was given the opportunity to review the poster for medical and scientific accuracy as well as intellectual property considerations. Yannick Allanore has received consulting fees and payment for presentations from BI; consulting fees from Sanofi; and has participated in a Data Safety Monitoring Board or advisory board for BI, Chemomab, Curizon, Medsenic, Menarini, Sanofi.

Poster presented at the Annual European Congress of Rheumatology, 1–4 June 2022.