

# COMPARATIVE ANALYSIS OF THE SAFETY AND TOLERABILITY PROFILE OF PIRFENIDONE AND NINTEDANIB IN THE TREATMENT OF IDIOPATHIC PULMONARY FIBROSIS

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## BACKGROUND

The main treatments of idiopathic pulmonary fibrosis are pirfenidone and nintedanib. Although their efficacy is known, further studies are needed to evaluate the safety and tolerability profiles (STPs) based on real-world data. For this purpose we evaluated the STP of nintedanib and pirfenidone according to our hospital data.

	Pirfenidone	Nintedanib
Period of the study	September 2016 - 2019	
N° of patients in treatment	148	120
Gender	72% M; 28% F	77% M; 23% F
Average age	72.7	74.4
N° of patients who started therapy in September 2016	88	120

## Tolerability

- Drugs were compared by a student t-test considering the **average of the days of treatment (DOT)** of the patients who started the therapy since September 2016.

## Safety

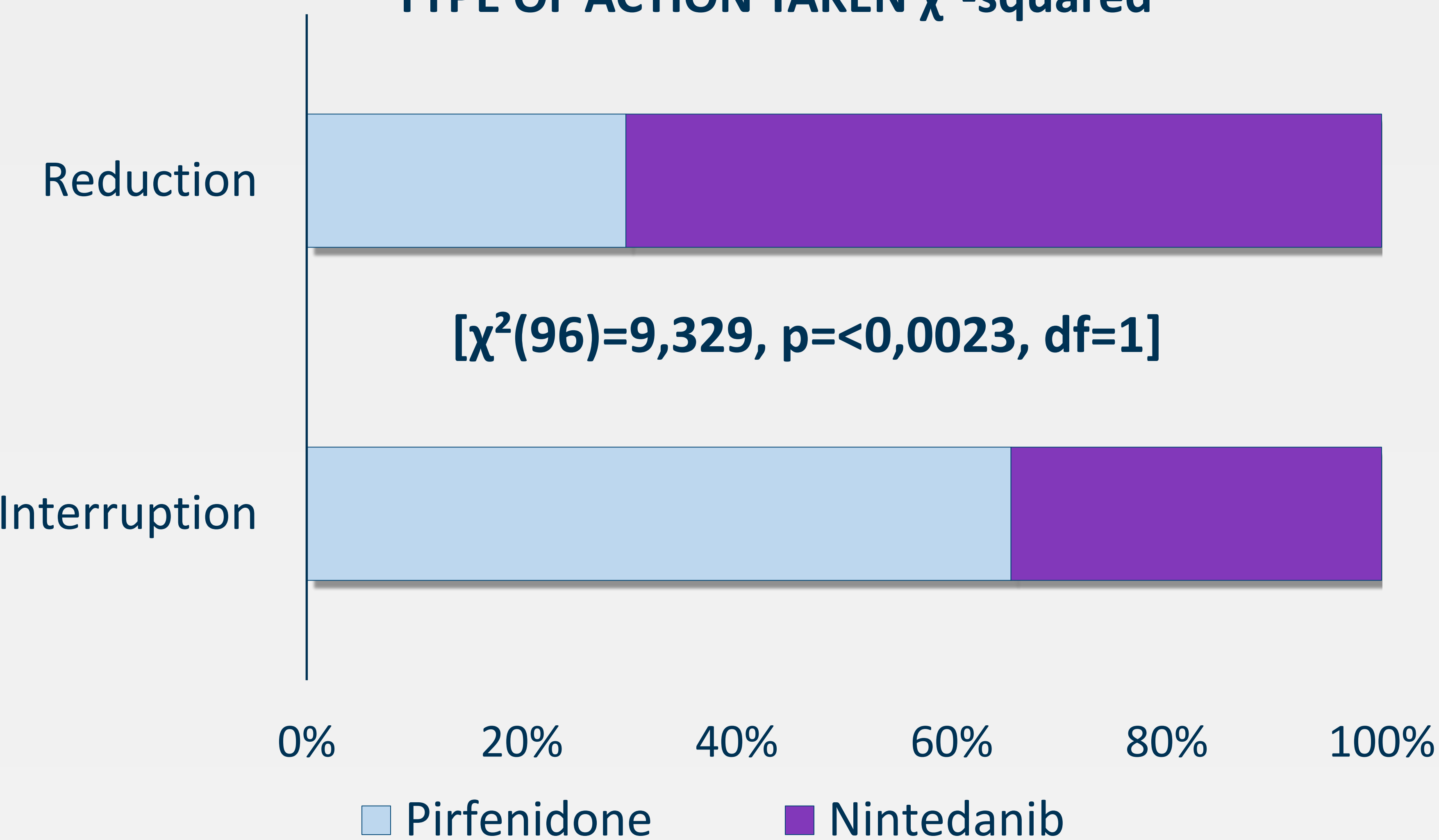
- The safety of the two treatments was compared **analyzing and classifying the Adverse Drug Reactions (ADRs)** reported.

## Action taken

- We also considered the type of action taken (**interruption, reduction of dosage**) and compared the frequencies using a  $\chi^2$ -test.

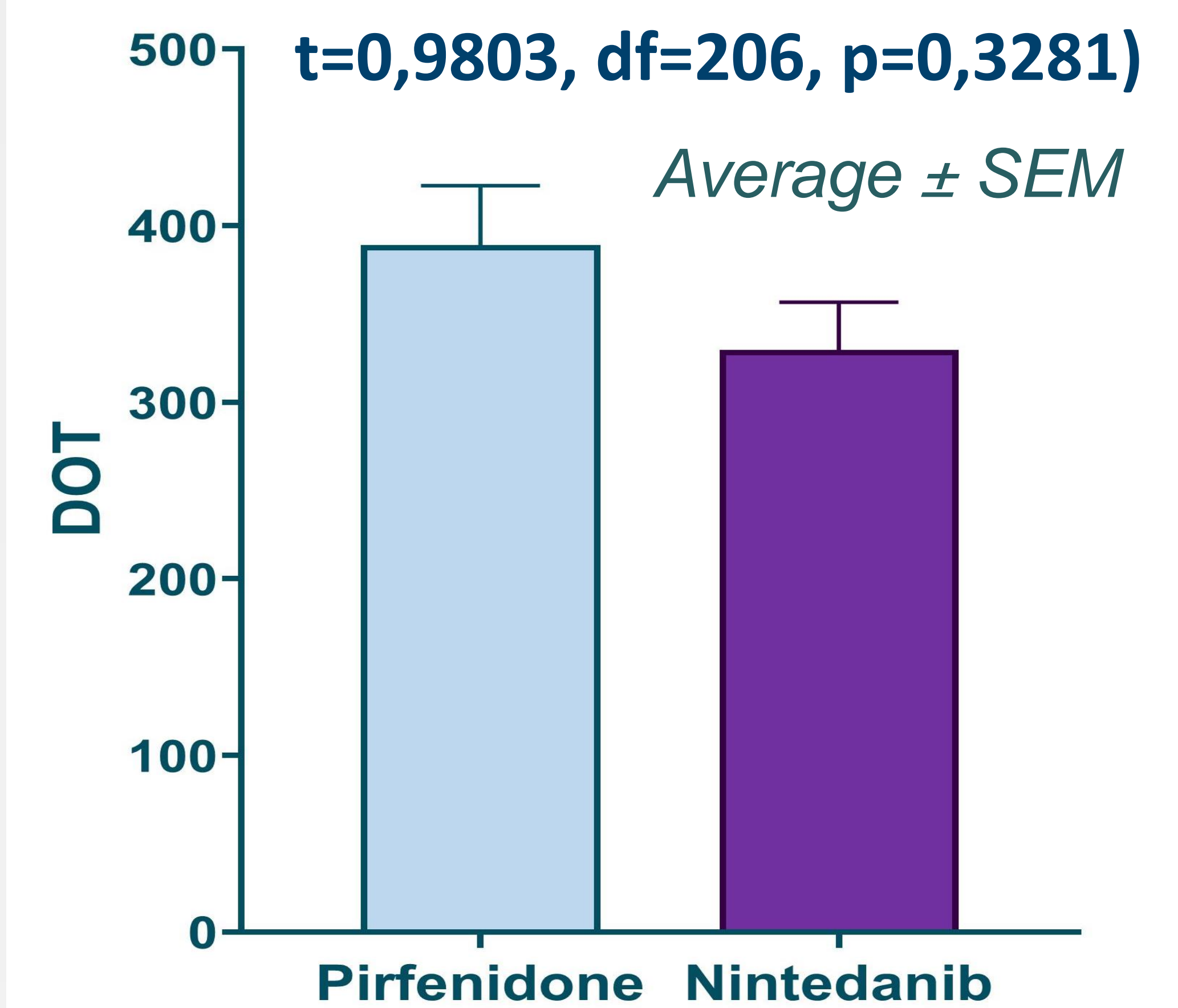
## RESULTS

TYPE OF ACTION TAKEN  $\chi^2$ -squared



## TOLERABILITY

DOT pirfenidone vs nintedanib



No significant differences emerged

Classes of ADR	Pirfenidone	Nintedanib
Nausea/vomiting	17%	40%
diarrhea	7%	93%
Rash	43%	17%
Weight-Loss	13%	50%
Non-specific GI disturbance	20%	87%

- Nintedanib showed a higher percentage of patients who reduced the dosage (70%) compared to pirfenidone (37%).
- Pirfenidone showed a higher percentage of patients who suspended therapy (63%) compared to nintedanib (30%).

## CONCLUSION

Although the drugs tolerability was comparable, nintedanib showed a higher incidence of ADRs compared to pirfenidone but with a lower severity.

