NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Nintedanib for treating progressive fibrosing interstitial lung diseases (TA747)

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Summary

NICE has recommended nintedanib as an option for treating chronic progressive fibrosing interstitial lung diseases (PF-ILD) in adults.

We estimate that:

- Around 830 people have progressive fibrosing interstitial lung diseases and are eligible for treatment with nintedanib.
- By 2024/25, around 665 people in total will have started treatment with nintedanib once the market share has reached 80% as shown in table 1.
- Based on the company's INBUILD trial around 19.6% of people starting nintedanib will discontinue treatment within their first year of treatment. It is assumed that these people receive half a year of treatment.
- There is a level of uncertainty in the estimates for the eligible population therefore these assumptions can be amended in the template to reflect local practice.

Table 1 Estimated number of people in England receiving nintedanib

	2021/22	2022/23	2023/24	2024/25	2025/26
Cumulative market share for nintedanib (%)	8	50	75	80	80
Cumulative people who will have received nintedanib treatment	67	416	624	665	665
People starting treatment with nintedanib in year	67	349	208	42	0
Population expected to discontinue treatment during first year of treatment (half year cost assumed)	(13)	(68)	(41)	(8)	0
People receiving subsequent year treatment with nintedanib	0	53	334	501	535
Total number of people receiving full year costs	**53**	**334**	**501**	**535**	**535**

This report is supported by a local resource impact template because the list price of nintedanib has a discount that is commercial-in-confidence. The discounted price of nintedanib can be put into the template and other variables may be amended.

This technology is commissioned by NHS England. Providers are NHS Hospital trusts.

1 Nintedanib

1.1 NICE has recommended nintedanib as an option for treating chronic progressive fibrosing interstitial lung diseases (PF-ILD) in adults.

1.2 Current treatment of PF-ILD in the NHS includes treatments for the underlying disease including, but not limited to, systemic corticosteroids, mycophenolate mofetil, azathioprine, cyclophosphamide, methotrexate, rituximab, infliximab and best supportive care. These treatments do not have marketing authorisations for PF-ILD.

1.3 People with PF-ILD often have underlying systemic conditions such as rheumatoid arthritis or sarcoidosis and they are seen by different medical specialties, notably respiratory and rheumatology.

1.4 Current treatment for progressive fibrosing interstitial lung diseases (PF-ILD) may or may not be continued when nintedanib is offered.

1.5 Nintedanib represents a step-change in PF-ILD management, allowing patients to receive the same anti-fibrotic treatment currently offered to patients with idiopathic pulmonary fibrosis (IPF).

2 Resource impact of the guidance

2.1 We estimate that:

- Around 830 people have progressive fibrosing interstitial lung diseases and are eligible for treatment with nintedanib.
- By 2024/25, around 665 people in total will have started treatment with nintedanib once the market share has reached 80% as shown in table 1.
- It is estimated using the company's INBUILD trial that 19.6% of people starting nintedanib will discontinue treatment within their first year of treatment. It is assumed that these people receive half a year of treatment. This can be amended to reflect local practice.
- The market share figures are shown in the resource impact template. Table 2 shows the number of people in England who are estimated to have nintedanib by financial year.

Table 2 Estimated number of people receiving nintedanib using NICE assumptions

	2021/22	2022/23	2023/24	2024/25	2025/26
Cumulative market share for nintedanib (%)	8	50	75	80	80
Cumulative people who will have received nintedanib treatment	67	416	624	665	665
People starting treatment with nintedanib in year	67	349	208	42	0
Population expected to discontinue treatment during first year of treatment (half year cost assumed)	(13)	(68)	(41)	(8)	0
People receiving subsequent year treatment with nintedanib	0	53	334	501	535
Total number of people receiving full year costs	**53**	**334**	**501**	**535**	**535**

2.2 This report is supported by a local resource impact template because the list price of nintedanib has a discount that is commercial-in-confidence. The discounted price of nintedanib can be put into the template and other variables may be amended.

Savings and benefits

2.3 Clinical evidence suggests nintedanib may slow the decline of lung function.

2.4 Nintedanib will be the only treatment licensed for people with PF-ILD.

2.5 The template allows users to input local assumptions for changes in attendances in primary and secondary care as a result of treatment with nintedanib.

3 Implications for commissioners

3.1 This technology is commissioned by NHS England. Providers are NHS hospital trusts.

3.2 Nintedanib falls within the programme budgeting category 11X: Problems of the respiratory system.

4 How we estimated the resource impact

The population

4.1 Clinical experts estimate that there are around 5,700 people in England that have non-idiopathic pulmonary fibrosis. This estimate could also be seen at the midpoint of the Olsen et al (2020) paper.

4.2 The company's INBUILD trial estimates that 14.5% of these people would have progressive fibrosing interstitial lung diseases and be eligible for treatment with nintedanib. This equates to around 830 people in England.

4.3 Table 3 shows the total number of people with progressive fibrosing interstitial lung disease excluding idiopathic pulmonary fibrosis who are eligible for treatment each year with nintedanib.

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total population[1]		56,286,961
Prevalence of non-idiopathic pulmonary fibrosis[2]	0.01%	5,730
Prevalence of progressive fibrosing interstitial lung diseases[3]	14.5%	830
People expected to have received treatment by 2024/25[4]	80%	665

[1] Office for National Statistics

[2] Clinical expert opinion / mid-point of Olson et al (2020) paper

[3] Company submission INBUILD trial

[4] 19.6% of these people are expected to have discontinued treatment and 535 are expected to have remained on treatment with nintedanib.

Assumptions

4.4 The resource impact template assumes that:

- The market share of nintedanib will increase each year until 2024/25 where it reaches a steady state of 80% of the eligible population.
- It is assumed nintedanib can be administered either in secondary care or homecare, the template can be amended to reflect local assumption. It is assumed costs of £50 per month are incurred for oral and self-administered subcutaneous drugs delivered by a homecare service. Any additional costs for pharmacy services resulting from the addition of this to homecare can also be included within the template.
- The recommended dose of nintedanib is 150 mg orally twice daily, administered approximately 12 hours apart. A dose of 100 mg twice daily is recommended in patients who do not tolerate the 150 mg twice daily dose.
- It is expected that the implementation of nintedanib would not require any additional infrastructure to be put in place within the NHS. However, any additional monitoring/appointments required can be modelled in the template.
- The companies INBUILD trial included a 19.6% discontinuation rate which is applied in the year that treatment is started. It is assumed that people who discontinue treatment receive half a year of treatment.
- No cost has been included for current treatments because they are variable and some people may continue their current treatment(s) alongside nintedanib.
- The template allows users to input current and future practice in relation to the number of attendances for people receiving treatment with nintedanib and those not receiving nintedanib.

- Once market share reaches a steady state, we assume there will be a small drop off equal to a small population starting treatment with nintedanib.

About this resource impact report

This resource impact report accompanies the NICE guidance on Nintedanib for treating progressive fibrosing interstitial lung diseases and should be read with it. See terms and conditions on the NICE website.