

Putting NICE guidance into practice

Resource impact report: Atezolizumab monotherapy for untreated advanced non-small cell lung cancer (TA705)

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Summary

NICE has recommended [atezolizumab](#) as a further treatment option for untreated advanced non-small-cell lung cancer (NSCLC) in accordance with the recommendation wording shown in paragraph 1.1.

We estimate that:

- Around 1,750 people with untreated advanced NSCLC are eligible for treatment with atezolizumab each year.
- Around 875 people will start treatment with atezolizumab each year from 2023/24 onwards once uptake has reached 50% as shown in table 1.
- People are treated with atezolizumab for an average period of 2 years therefore around 1,750 people are expected to receive atezolizumab each year from 2024/25 onwards.
- There is an increase in administration appointments needed because people continue treatment from the previous year.

Table 1 Estimated number of people in England receiving atezolizumab

	2021/22	2022/23	2023/24	2024/25	2025/26
Uptake rate for atezolizumab (%)	30	40	50	50	50
Population starting atezolizumab each year (first year of treatment)	500	700	875	875	875
People continuing treatment from previous year		500	700	875	875
Total	500	1,200	1,575	1,750	1,750

This report is supported by a local [resource impact template](#) because the list price of atezolizumab has a discount that is commercial in confidence. The discounted price of atezolizumab 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 Atezolizumab

- 1.1 NICE has recommended [atezolizumab](#) within its anticipated marketing authorisation, as an option for untreated metastatic non-small-cell lung cancer (NSCLC) in adults if:
- their tumours have PD-L1 expression on at least 50% of tumour cells or 10% of tumour infiltrating immune cells
 - their tumours do not have epidermal growth factor receptor (EGFR) or anaplastic lymphoma kinase (ALK) mutations and
 - the company provides atezolizumab according to the commercial arrangement (see section 2).
- 1.2 Current practice for untreated metastatic NSCLC tumours with no EGFR or ALK mutations depends on PD-L1 status. If tumours are PD-L1 positive with a score of at least 50%, pembrolizumab monotherapy is offered as standard. Pembrolizumab in combination with chemotherapy may also be offered.
- 1.3 Pembrolizumab is currently the only immunotherapy drug available in this indication and so there is still unmet need. Clinical expert input suggested atezolizumab is very similar to pembrolizumab, with no robust differences in toxicity or efficacy. The committee concluded that atezolizumab is an important treatment option for people with this condition.

2 Resource impact of the guidance

- 2.1 We estimate that:
- Around 1,750 people with untreated advanced NSCLC are eligible for treatment with atezolizumab each year.
 - Around 875 people will start treatment with atezolizumab each year from year 2023/24 onwards once uptake has reached 50% as shown in table 2.

- People are treated with atezolizumab for an average period of 2 years, therefore around 1,750 people are expected to receive atezolizumab each year from 2024/25 onwards.
- There is an increase in administration appointments needed because people continue treatment from the previous year.

2.2 The current treatment and future uptake figure assumptions are based on expert opinion provided by NHS England and Improvement and are shown in the resource impact template. Table 2 shows the number of people in England who are estimated to have atezolizumab by financial year.

Table 2 Estimated number of people having atezolizumab using NICE assumptions

	2021/22	2022/23	2023/24	2024/25	2025/26
Uptake rate for atezolizumab (%)	30	40	50	50	50
Population starting atezolizumab each year (first year of treatment)	500	700	875	875	875
People continuing treatment from previous year		500	700	875	875
Total	500	1,200	1,575	1,750	1,750

2.3 This report is supported by a local [resource impact template](#). The company has a commercial arrangement (simple discount patient access scheme). This makes atezolizumab available to the NHS with a discount. The size of the discount is commercial in confidence. It is the company's responsibility to let relevant NHS organisations know details of the discount. The discounted price of atezolizumab can be put into the template and other variables may be amended. For enquiries about the patient access scheme please contact: welwyn.rx_bdop@roche.com.

3 Implications for commissioners

- 3.1 This technology is commissioned by NHS England. Providers are NHS hospital trusts.
- 3.2 Atezolizumab is a further treatment option with a longer average treatment duration than the comparator option, pembrolizumab, in this patient group. The resource impact template allows the commissioner to assess the resource impact of any additional attendances required at provider services for reimbursement.
- 3.3 Atezolizumab falls within the programme budgeting category 2D: Cancers and Tumours - Lung.

4 How we estimated the resource impact

The population

- 4.1 Around 39,300 people were diagnosed with lung cancer in 2018 [\[Office for National Statistics 2018\]](#). Table 3 shows the details of the population with untreated metastatic NSCLC who are estimated to be eligible for treatment with atezolizumab monotherapy.

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people
Total population		56,286,981
Adult population		44,263,393
Incidence of lung cancer ¹	0.09	39,300
People who have NSCLC ²	88.6	34,800
People diagnosed with stage IV metastatic disease ²	49	17,000
People who have performance status of 0-1 ³	86.2	14,700
People who receive an active treatment ²	66	9,700
People with assessable samples for PD-L1 ³	90	8,700
People whose tumours have PD-L1 positive expression of at least 50% ³	30	2,600
People whose tumours have no EGFR or are anaplastic lymphoma kinase-positive ⁴	81	2,100
People able to have a targeted treatment ⁵	82.5	1,750
Total number of people eligible for treatment with atezolizumab		1,750
Total number of people estimated to receive atezolizumab each year from year 2024/25	50	875
Add: People continuing treatment from previous year		875
Total receiving treatment from 2024/25		1,750
¹ Cancer registration statistics released April 19. ICD-10 code C34 ² Annual report (version 2 published March 2021) RCP London ³ Dietel M., Savelov N. et al. (2019) Real-world prevalence of programmed death ligand 1 expression in locally advanced or metastatic non-small-cell lung cancer: The global, multi-center EXPRESS study. Lung Cancer. 2019 Aug;134:174-179 ⁴ Company submission table 3. ⁵ Blueteq data provided by NHSE		

Assumptions

4.2 The resource impact template assumes that:

- Currently no people with PDL1 of at least 50% are receiving atezolizumab monotherapy for untreated advanced NSCLC
- Currently 100% of people with PDL-1 of at least 50% receive pembrolizumab for untreated advanced NSCLC
- In future 50% of people with PDL-1 of at least 50% receive atezolizumab monotherapy and 50% receive pembrolizumab monotherapy for untreated advanced NSCLC
- People receive atezolizumab treatment for 102 weeks (average 34 cycles of 3 weeks)
- People receive pembrolizumab treatment for 48 weeks (average 16 cycles of 3 weeks).
- For simplicity, the average treatment durations are applied to all people receiving treatment, therefore discontinuation of treatment during that time is not applied, and no cost of treatment is assumed beyond the average treatment duration.

Administration costs ([national tariff 2020/21](#))

- SB12Z Deliver simple parenteral chemotherapy at first attendance) £159.

Other factors

- 4.3 There could be an impact on capacity for provider services because of differences in the length of time people are treated. Atezolizumab is given for 102 weeks (34 cycles) versus pembrolizumab treatment for 48 weeks (16 cycles). Any changes in the number of appointments required can be assessed in the resource impact template.

About this resource impact report

This resource impact report accompanies the NICE guidance on [Atezolizumab monotherapy for untreated advanced non-small cell lung cancer \[TA705\]](#) and should be read with it.

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