

Putting NICE guidance into practice

Resource impact report: Pembrolizumab for adjuvant treatment of resected stage 2B or 2C melanoma (TA837)

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Summary

NICE has recommended pembrolizumab as an option for the adjuvant treatment of completely resected stage 2B or 2C melanoma in people 12 years and over. It is recommended only if the company provides pembrolizumab according to the commercial arrangement (see section 2 of the guidance).

By the year 2026/27 we estimate that:

- Around 1,500 people aged 12 or over with completely resected stage 2B or 2C melanoma are eligible for treatment with pembrolizumab after adjusting for expected population growth.
- Around 730 people will receive pembrolizumab from year 3 onwards once uptake has reached 50% after adjusting for expected population growth as shown in table 1.

Table 1 Estimated number of people in England receiving pembrolizumab

	2022/23	2023/24	2024/25	2025/26	2026/27
Uptake rate for pembrolizumab (%)	25	35	50	50	50
Population receiving pembrolizumab each year	360	510	730	730	730

This report is supported by a local resource impact template because the list price of pembrolizumab has a discount that is commercial in confidence. The discounted price of pembrolizumab 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 Pembrolizumab

- 1.1 NICE has recommended pembrolizumab as an option for the adjuvant treatment of completely resected stage 2B or 2C melanoma in people 12 years and over. It is recommended only if the company provides pembrolizumab according to the commercial arrangement (see section 2 of the guidance).
- 1.2 There are currently no adjuvant therapies for this population and current practice is routine surveillance.
- 1.3 Pembrolizumab is a new treatment option and can reduce the rate of disease recurrence following complete resection.

2 Resource impact of the guidance

- 2.1 By 2026/27 we estimate that:
- Around 1,500 people aged 12 or over with completely resected stage 2B or 2C melanoma are eligible for treatment with pembrolizumab after adjusting for expected population growth.
 - 730 people will receive pembrolizumab from year 3 onwards once uptake has reached 50% after adjusting for expected population growth.
- 2.2 The current treatment and future uptake figure assumptions are based on clinical expert opinion and are shown in the resource impact template. Table 2 shows the number of people in England who are estimated to receive pembrolizumab by financial year.

Table 2 Estimated number of people receiving pembrolizumab using NICE assumptions

	2022/23	2023/24	2024/25	2025/26	2026/27
Uptake rate for pembrolizumab (%)	25	35	50	50	50
Population receiving pembrolizumab each year	360	510	730	730	730

2.3 This report is supported by a local resource impact template. Pembrolizumab has an agreed patient access scheme which makes it available with a commercial-in-confidence discount to the list price. The discounted price of pembrolizumab can be put into the template and other variables may be amended. It is the manufacturer’s responsibility to communicate the discounted prices to NHS organisations

Savings and benefits

2.4 Pembrolizumab can reduce the rate of disease recurrence in people aged 12 and over who have had full resection of stage 2B or 2C melanoma. This can reduce the requirement and cost of future treatment.

3 Implications for commissioners

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

3.2 Pembrolizumab falls within the programme budgeting category 02E, cancers and tumours, skin.

3.3 As there is no current adjuvant treatment for this population, people choosing pembrolizumab will have an impact on capacity required to deliver treatment.

4 How we estimated the resource impact

The population

4.1 By the year 2026/27 there will be around 15,300 cases of melanoma in people aged 12 years and over in England each year, of these around 2,900 (19.13%) will have stage 2 disease on diagnosis. Of these, around 1,460 (50%) will have stage 2B or 2C disease and all of these people are expected to undergo a complete resection.

Table 3 Number of people eligible for treatment in England

Population	Proportion of previous row (%)	Number of people in 2026/27
Total population		58,061,002
Incidence of melanoma ¹	0.03	15,300
Proportion of people with stage 2 disease on diagnosis ²	19	2,900
Proportion of people with stage 2B or 2C disease ³	50	1,460
Proportion of people who will undergo a full resection	100	1,460
Total number of people estimated to receive pembrolizumab each year from year 3 ⁴	50	730
¹ Source: Cancer Registration Statistics, England 2019 - NHS Digital		
² Source: CancerData stage at diagnosis		
³ Source: NHS England		
⁴ Source: NHS England expert opinion		

Assumptions

The resource impact template assumes that:

- Pembrolizumab has an average treatment duration of 6.85 cycles assuming doses every six weeks.
- Pembrolizumab can be administered every three weeks rather than every six weeks with adjusted dosing. Changes can be modelled in the resource impact template.

- No cost is included for routine surveillance as this is the same as monitoring costs that would be included in any treatment.
- A weighted average is calculated for the different treatments used when disease recurrence occurs. Users can enter their own estimates of the proportions choosing each treatment option.
- The disease recurrence rates for people who have had routine surveillance are 20% in year 1, 12% in year 2 and 6% in year 3.
- The disease recurrence rates in people who have pembrolizumab are 12% in year 1, 10% in year 2 and 5% in year 3.
- Users can amend the disease recurrence rate in the template and a range of +/- 2% is a recommended confidence interval.
- The proportion of disease recurrence that are local is 40.29% after routine surveillance and 48.42% after pembrolizumab, the proportion that are distant metastases is 55.40% after routine surveillance and 47.47% after pembrolizumab.

About this resource impact report

This resource impact report accompanies the NICE guidance Pembrolizumab for adjuvant treatment of resected stage 2B or 2C melanoma and should be read with it.

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