NICE National Institute for Health and Care Excellence

Putting NICE guidance into practice

Resource impact report:
Pembrolizumab with lenvatinib for previously treated advanced or recurrent endometrial cancer (TA904)

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Summary

NICE has recommended pembrolizumab plus lenvatinib as an option for treating advanced or recurrent endometrial cancer in adults:

- whose cancer has progressed on or after platinum-based chemotherapy and
- who cannot have curative surgery or radiotherapy.

Pembrolizumab plus lenvatinib is recommended only if the companies provide them according to the commercial arrangements (see section 2 of the guidance).https://www.nice.org.uk/guidance/ta439

By 2027/28 we estimate that:

- 880 people with advanced or recurrent endometrial cancer are eligible for treatment with pembrolizumab plus lenvatinib after adjusting for expected population growth
- 660 people will receive pembrolizumab plus lenvatinib from year 3 onwards once uptake has reached 75% adjusted for expected population growth as shown in table 1.

Table 1 Estimated number of people in England receiving pembrolizumab plus lenvatinib

	2023/24	2024/25	2025/26	2026/27	2027/28
Uptake rate for pembrolizumab plus lenvatinib (%)	35	50	75	75	75
Population receiving pembrolizumab plus lenvatinib each year	300	430	660	660	660
Increase in administrations per year compared to 50% of people receiving doxorubicin and 50% of people receiving paclitaxel	1,500	1,700	3,200	3,300	3,300

This report is supported by a local resource impact template because the list prices of pembrolizumab and lenvatinib have discounts that are commercial in confidence. The discounted prices of pembrolizumab and lenvatinib 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 plus lenvatinib

1.1 NICE has recommended pembrolizumab plus lenvatinib as an option for treating advanced or recurrent endometrial cancer in adults:

- whose cancer has progressed on or after platinum-based chemotherapy and
- who cannot have curative surgery or radiotherapy.

Pembrolizumab plus lenvatinib is recommended only if the companies provide them according to the commercial arrangements.

1.2 Current practice after platinum-based chemotherapy varies depending on interval from previous chemotherapy, previous response and toxicities to chemotherapy, and patient preference. However, treatment with either doxorubicin or paclitaxel are most common. Pembrolizumab plus lenvatinib is an additional treatment option for this population.

2 Resource impact of the guidance

2.1 We estimate that:

- 880 people with advanced or recurrent endometrial cancer are eligible for treatment with pembrolizumab plus lenvatinib after adjusting for expected population growth.
- 660 people will receive pembrolizumab plus lenvatinib from year 3 onwards once uptake has reached 75% 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 plus lenvatinib by financial year.

Table 2 Estimated number of people receiving pembrolizumab plus lenvatinib using NICE assumptions

	2023/24	2024/25	2025/26	2026/27	2027/28
Uptake rate for pembrolizumab plus lenvatinib (%)	35	50	75	75	75
Population receiving pembrolizumab plus lenvatinib each year	300	430	660	660	660
Increase in administrations per year compared to 50% of people receiving doxorubicin and 50% of people receiving paclitaxel	1,500	1,700	3,200	3,300	3,300

2.3 This report is supported by a local resource impact template. The list prices of pembrolizumab and lenvatinib have discounts that are commercial in confidence. The discounted prices of pembrolizumab and lenvatinib can be put into the template and other variables may be amended.

2.4 Where pembrolizumab and lenvatinib displaces doxorubicin there will be an increase in use of clinical time as pembrolizumab has a 30-minute infusion time while doxorubicin is only 10 minutes, and because pembrolizumab is given for more cycles. When pembrolizumab and lenvatinib displaces paclitaxel, this will release capacity because paclitaxel has a longer infusion time of 3-4 hours and is given for more cycles.

2.5 When treatments which have a longer treatment duration like pembrolizumab with lenvatinib or paclitaxel are used there will be more monitoring appointments and more oncology appointments compared with doxorubicin.

3 Implications for commissioners

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

3.2 Pembrolizumab plus lenvatinib falls within the programme budgeting category 02G cancer, gynaecological.

4 How we estimated the resource impact

The population

4.1 By 2027/28 there will be around 8,300 cases of endometrial cancer per year, of these around 6,700 (81%) will have early disease of whom around 870 (13%) of these will have disease recurrence. Adding these to the 1,600 who have advanced disease on diagnosis gives around 2,500 people. 880 (36%) of people with recurrent or advanced disease will be eligible for second line treatment.

Table 3 Number of people eligible for treatment in England

	Population	Proportion of previous row (%)	Number of people
	Adult population in 2027/28 after adjusting for expected population growth		46,263,200
a	Incidence of endometrial cancer[1]	0.02	8,300
b	Proportion of people with advanced disease[2]	18.92	1,600
c	Proportion of people with early disease[2]	81.08 of (a)	6,700
d	Proportion of people with disease recurrence in early disease[3]	13	870
e	Number of people with recurrent or advanced cancer	b+d	2,500
f	Total number of people with recurrent or advanced disease eligible for treatment with pembrolizumab plus lenavitanib following prior platinum based chemotherapy[4]	36	880
g	Total number of people estimated to receive pembrolizumab plus lenavitanib each year from year 3	75	660
	[1] Cancer registration statistics, year 2019. NHS Digital. [2] Cancer registration statistics, year 2019. NHS Digital. [3] Fung-Kee-Fung, M., et al., Follow-up after primary therapy for endometrial cancer: a systematic review [4] Midpoint of NHS England and company estimates.		

Assumptions

4.2 The resource impact template assumes that:

- Pembrolizumab plus lenvatinib has an average treatment duration of 13, 3-week cycles. Each can be changed locally in the resource impact template.
- Lenvatinib stops when pembrolizumab stops, in practice people may continue to receive lenvatinib after treatment with pembrolizumab stops, this can be amended in the template.

- Doxorubicin has an average treatment duration of 5, 3-week cycles.
- Paclitaxel has an average treatment duration of 15, 3-week cycles.
- Pembrolizumab, doxorubicin and paclitaxel are given intravenously and the administration costs are based on HRG SB13Z: deliver more complex parenteral chemotherapy at first attendance. Lenvatinib is given orally and does not have any administration cost when used in combination with pembrolizumab.

About this resource impact report

This resource impact report accompanies the NICE guidance on Pembrolizumab with lenvatinib for previously treated advanced or recurrent endometrial cancer and should be read with it.