

## Putting NICE guidance into practice

### **Resource impact report: Lenvatinib with pembrolizumab for untreated advanced renal cell carcinoma (TA858)**

Published: January 2023

## Summary

NICE has recommended lenvatinib with pembrolizumab as an option for untreated advanced renal cell carcinoma in adults. See the full recommendation wording in section 1.

By 2026/27 we estimate that:

- around 1,660 adults with untreated advanced renal cell carcinoma are eligible for treatment with lenvatinib with pembrolizumab.
- around 750 adults will start treatment with lenvatinib with pembrolizumab after adjusting for predicted population growth.
- around 7,870 fewer appointments for hospital administrations to adults with untreated advanced renal cell carcinoma will be needed as shown in table 2. (This assumes that lenvatinib with pembrolizumab is given every 6 weeks and oral only treatment are dispensed 50/50 through homecare delivery and secondary care).

**Table 1 Estimated number of people in England starting treatment with lenvatinib with pembrolizumab each year**

	2022/23	2023/24	2024/25	2025/26	2026/27
Uptake %	15	33	45	45	45
People starting treatment with lenvatinib with pembrolizumab	240	540	740	740	750
<b>Total number of people</b>	<b>240</b>	<b>540</b>	<b>740</b>	<b>740</b>	<b>750</b>
It is anticipated people continue treatment for 17 months on average and therefore there will also be people receiving treatment who started treatment in the previous year. (Numbers of people in table rounded to nearest 10)					

**Table 2 Estimated reduction in appointments needed in England**

	2022/23	2023/24	2024/25	2025/26	2026/27
Reduction in appointments	-2,960	-5,530	-7,420	-7,820	-7,870
Numbers of people in table rounded to nearest 10 and excludes drugs administered via homecare delivery					

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

- 1.1 NICE has recommended lenvatinib with pembrolizumab as an option for untreated advanced renal cell carcinoma in adults, only if:
- their disease is intermediate or poor risk as defined in the International Metastatic Renal Cell Carcinoma Database Consortium criteria and
  - nivolumab with ipilimumab would otherwise be offered and
  - the companies provide lenvatinib and pembrolizumab according to the commercial arrangements.
- 1.2 This recommendation is not intended to affect treatment with lenvatinib with pembrolizumab that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.
- 1.3 Current treatment for untreated advanced renal cell carcinoma irrespective of risk includes pazopanib, tivozanib or sunitinib. For people with intermediate and poor-risk disease, cabozantinib, and nivolumab plus ipilimumab are treatment options, with nivolumab plus ipilimumab usually preferred for people who are fit enough to receive it. For people who are less fit, cabozantinib is more likely to be offered.
- 1.4 NICE have also recommended the combination of avelumab and axitinib for use within the Cancer Drugs Fund for this indication.
- 1.5 The aim of treatment is to prevent the growth and survival of cancer cells within the tumour. Treatment aims to prolong survival

and maintain a good quality of life by controlling the disease and relieving symptoms.

## **2 Resource impact of the guidance**

2.1 By 2026/27 we estimate that:

- around 1,660 adults with untreated advanced renal cell carcinoma are eligible for treatment with lenvatinib with pembrolizumab.
- around 750 adults will start treatment with lenvatinib with pembrolizumab each year after adjusting for predicted population growth.
- 7,870 fewer appointments for hospital administrations to adults with untreated advanced renal cell carcinoma will be needed as shown in table 2. (This assumes that lenvatinib with pembrolizumab is given every 6 weeks and oral only treatment are dispensed 50/50 through homecare delivery and secondary care).

2.2 The current treatment and future uptake figure assumptions are based on NHSE clinical opinion and are shown in the resource impact template. Table 3 shows the number of people in England who are estimated to receive lenvatinib with pembrolizumab by financial year.

**Table 3 Estimated number of people in England starting treatment with lenvatinib with pembrolizumab using NICE assumptions**

	2022/23	2023/24	2024/25	2025/26	2026/27
Uptake %	15	33	45	45	45
People starting treatment with lenvatinib with pembrolizumab	240	540	740	740	750
<b>Total number of people</b>	<b>240</b>	<b>540</b>	<b>740</b>	<b>740</b>	<b>750</b>
It is anticipated people continue treatment for 17months on average and therefore there will also be people receiving treatment who started treatment in the previous year. <i>(Numbers of people in table rounded to nearest 10)</i>					

**Table 4 Estimated reduction in appointments needed in England**

	2022/23	2023/24	2024/25	2025/26	2026/27
Reduction in appointments	<b>-2,960</b>	<b>-5,530</b>	<b>-7,420</b>	<b>-7,820</b>	<b>-7,870</b>
<i>Numbers of people in table rounded to nearest 10 and excludes drugs administered via homecare delivery</i>					

- 2.3 This report is supported by a local resource impact template because the companies have commercial arrangements (simple discount patient access schemes). These make lenvatinib and pembrolizumab available to the NHS with discounts. The sizes of the discounts are commercial in confidence. It is the companies' responsibility to let relevant NHS organisations know details of the discounts.

### **3 Implications for commissioners and providers**

- 3.1 Lenvatinib with pembrolizumab is commissioned by NHS England and Improvement. Providers are NHS hospital trusts
- 3.2 There will be a capacity impact on chemotherapy units for people who receive lenvatinib with pembrolizumab. The resource impact template allows providers to assess how a reduction in

attendances to chemotherapy units has the potential to free up capacity and reduce costs.

- 3.3 Lenvatinib with pembrolizumab falls within the programme budgeting category 2H: Cancer, Urological.

## 4 How we estimated the resource impact

### The population

- 4.1 In 2019, around 11,550 adults were diagnosed with kidney cancer in England [[Office for National Statistics 2021 - cancer registration statistics England 2019 data release](#)].
- 4.2 Of these, [Cancer Research UK](#) estimated around 80% have kidney cancer that is renal cell carcinoma and the [National Cancer Registration and Analysis Service](#) estimated 42% would be advanced or metastatic renal cell carcinoma.
- 4.3 Using assumptions from [TA780 Nivolumab with ipilimumab for untreated advanced renal cell carcinoma](#) it is estimated that 75% of these patients will receive first line systemic therapy. [Kidney Cancer UK](#) estimates that 75% will have clear cell disease and using assumptions from TA780 a further 76% will have disease that is intermediate or poor risk.
- 4.4 Table 5 shows the number of people eligible for treatment with lenvatinib with pembrolizumab.

**Table 5 Number of people eligible for treatment in England**

Population	Proportion of previous row (%)	Number of people in 2026/27
Adult population (adjusted for predicted growth each year)	■	46,263,200
Incidence of kidney cancer in adults <sup>1</sup>	0.02%	11,550
Proportion of kidney cancer that is renal cell carcinoma <sup>2</sup>	80%	9,240
Proportion with advanced or metastatic renal cell carcinoma <sup>3</sup>	42%	3,880
Proportion of patients who will receive first line systemic therapy <sup>4</sup>	75%	2,910
Proportion with advanced renal cell carcinoma with clear cell disease <sup>5</sup>	75%	2,180
Proportion with advanced renal cell carcinoma with clear cell disease who are intermediate or poor risk <sup>4</sup>	76%	1,660
<sup>1</sup> <a href="#">Office for National Statistics 2021 - cancer registration statistics England 2019 data release</a> (ICD code C64-66) <sup>2</sup> <a href="#">Cancer Research UK</a> <sup>3</sup> <a href="#">National Cancer Registration and Analysis Service</a> <sup>4</sup> <a href="#">TA780</a> <sup>5</sup> <a href="#">Kidney Cancer UK What Is Kidney Cancer (kcuk.org.uk)</a> (Numbers of people in table rounded to nearest 10)		



## Assumptions

4.5 The resource impact template assumes that:

- Current NHS treatment for untreated advanced renal cell carcinoma with intermediate to poor risk is cabozantinib, and nivolumab plus ipilimumab (within routine commissioning) or avelumab with axitinib (which is currently funded by the CDF).
- Unit costs of current treatments funded within the CDF are not included in the resource impact template. This is so the template shows the impact on routine commissioning. This can be amended locally.
- The dose for lenvatinib with pembrolizumab is from the CLEAR study, pembrolizumab 200mg intravenously every 3 weeks in combination with lenvatinib 20 mg orally once daily. Clinical experts stated pembrolizumab is likely to be given as 400 mg intravenously every 6 weeks, user can input the proportions of each dosing schedules into the template using local assumptions.
- The median treatment duration for people starting treatment with lenvatinib with pembrolizumab is 17 months.
- The resource impact over time sheet in the template allows users to input assumption on future incidence rates of kidney cancer.
- For oral only drugs the resource impact template allows users to input the proportion of drugs dispensed as homecare delivery or in secondary care.

### **Administration costs ([National Tariff 2022/23](#))**

- SB11Z Deliver Exclusively Oral Chemotherapy £132.
- SB12Z Deliver simple parenteral chemotherapy at first attendance £162.
- SB13Z Deliver more complex parenteral chemotherapy at first attendance £324.

### **About this resource impact report**

This resource impact report accompanies the [NICE technology appraisal guidance on lenvatinib with pembrolizumab for untreated advanced renal cell](#)

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[carcinoma](#) and should be read with it. See [terms and conditions](#) on the NICE website.

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