

Putting NICE guidance into practice

**Resource impact report:  
Pemetrexed maintenance treatment for  
non-squamous non-small-cell lung cancer  
after pemetrexed and cisplatin (TA402)**

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## Summary

NICE has recommended pemetrexed maintenance treatment as an option for treating locally advanced or metastatic non-squamous non-small-cell lung cancer in adults in line with the criteria set out in the recommendations (see section 1.2).

Pemetrexed will be available to the NHS through a commercial access agreement between the company and NHS England, which makes it available with a discount (see section 1.3). The average treatment duration is 8 cycles.

Pemetrexed has been available under the Cancer Drugs Fund (CDF) since April 2013.

It is anticipated that there will be no significant change in overall NHS spending because the guidance results in funding for pemetrexed moving from the CDF into routine commissioning.

It is estimated that about 690 people are eligible for maintenance treatment with pemetrexed after having 4 cycles of induction therapy with pemetrexed and cisplatin.

Based on the CDF's records of [notifications and individual requests](#), about 570 people were treated with pemetrexed as a maintenance treatment through the CDF after having pemetrexed and cisplatin induction therapy in 2015/16. This is not anticipated to change as result of the move from the CDF to routine commissioning.

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

# 1 Introduction

1.1 This report looks at the resource impact of implementing the NICE guidance on [pemetrexed maintenance treatment for non-squamous non-small-cell lung cancer after pemetrexed and cisplatin](#) in England.

1.2 The guidance states that:

- Pemetrexed is recommended as an option for the maintenance treatment of locally advanced or metastatic non-squamous non-small-cell lung cancer in adults when:
  - their disease has not progressed immediately after 4 cycles of pemetrexed and cisplatin induction therapy
  - their Eastern Cooperative Oncology Group (ECOG) performance status is 0 or 1 at the start of maintenance treatment and
  - the company provides the drug according to the terms of the commercial access agreement as agreed with NHS England.
- When using ECOG performance status, healthcare professionals should take into account any physical, sensory or learning disabilities, or communication difficulties that could affect ECOG performance status and make any adjustments they consider appropriate.
- This guidance is not intended to affect the position of patients whose treatment with pemetrexed was started within the NHS before this guidance was published. Treatment of those patients may continue without change to whatever funding arrangements were in place for them before this guidance was published until they and their NHS clinician consider it appropriate to stop.

NHS England and Eli Lilly have agreed that pemetrexed will be available to the NHS through a commercial access agreement

which makes it available for continuation maintenance treatment (that is, after pemetrexed and cisplatin induction therapy) at a reduced cost. The financial terms of the agreement are commercial in confidence. Any enquiries from NHS organisations about the commercial access agreement should be directed to [productsupply@lilly.com](mailto:productsupply@lilly.com)

- 1.3 This report is supported by a resource impact template which requires the commercial in confidence discounted prices of pemetrexed to be input into the template in order to estimate the resource impact. The template aims to help organisations in England, Wales and Northern Ireland plan for the financial implications of implementing the NICE guidance by amending the variables in the blue cells.

## **2 Background and epidemiology of non-squamous non-small-cell lung cancer**

- 2.1 Lung cancer is a condition in which tumours develop in the lungs. Smoking is the main cause of lung cancer (accounting for over 85% of cases). For more information see Cancer Research UK's [lung cancer risk factors](#).
- 2.2 Observation and best supportive care are the treatment options for people with non-squamous non-small-cell lung cancer who have had 4 cycles of pemetrexed and cisplatin. Further chemotherapy is considered only if their disease relapses, so the comparator for this appraisal is best supportive care.
- 2.3 Pemetrexed has been available through the Cancer Drugs Fund (CDF) for this indication since April 2013. People will still have best supportive care whether they have pemetrexed or not.
- 2.4 Table 1 shows the number of notifications (new people wanting the drug) that [NHS England](#) got for pemetrexed as maintenance

treatment after 4 cycles of pemetrexed and cisplatin induction  
treatment since April 2013.

**Table 1 Cancer Drugs Fund notifications received by NHS England for pemetrexed**

Year	2013/14	2014/15	2015/16
Number of applications <sup>a</sup>	520	671	566
a. NHS England. The Cancer Drugs Fund: <a href="#">notifications and individual Cancer Drugs Fund requests</a> .			

2.5 In 2014 around 37,500 people were diagnosed with lung cancer in England ([Office for National Statistics, 2016](#)). Table 2 shows details of the population eligible for pemetrexed maintenance treatment.

**Table 2 Annual number of people eligible for maintenance treatment with pemetrexed in England**

<b>Population</b>	<b>Proportion (percentage of previous row)</b>	<b>Number of people</b>
Total population in England aged 18 and over		42,359,366
Incidence of lung cancer <sup>a</sup>	0.09%	37,453
Proportion of people with confirmed non-small-cell cancers <sup>b</sup>	66.7%	24,981
Proportion of people presenting with stage III (locally advanced) or stage IV (metastatic) non-small-cell lung cancer <sup>c</sup>	77%	19,235
Proportion of people with large-cell lung cancer and adenocarcinoma within the non-small-cell cancer group <sup>d</sup>	28.9%	5,559
Proportion of people who have chemotherapy as a first-line treatment <sup>b</sup>	29.5%	1,640
Proportion of people who have 4 cycles of pemetrexed-cisplatin induction therapy and who may be eligible for pemetrexed maintenance therapy <sup>e</sup>	42%	689
Proportion of people who may receive pemetrexed maintenance therapy <sup>f</sup>	82.15%	566
<p>a. <a href="#">Office for National Statistics</a>: cancer registration statistics, England: first release: 2014. Released on 23 February 2016.</p> <p>b. <a href="#">National Lung Cancer Audit</a> annual report (2015) for the audit period 2014 – Royal College of Physicians (2015)</p> <p>c. <a href="#">Cancer Research UK</a> and National Cancer Intelligence Network (2014)</p> <p>d. NICE's <a href="#">costing template</a> for technology appraisal guidance on pemetrexed for the first-line treatment of non-small-cell lung cancer (based on findings of the National lung cancer audit 2007)</p> <p>e. Estimate based on company submission.</p> <p>f. NHS England. The Cancer Drugs Fund: notifications and individual Cancer Drug Fund requests. <a href="#">NHS England</a></p>		

2.6 Therefore it is estimated that approximately 690 people are eligible for treatment with pemetrexed maintenance chemotherapy.

### **3 Assumptions made**

- 3.1 Table 2 shows the population assumptions used in the resource impact template.
- 3.2 The [resource impact template](#) makes the following assumptions:
- the additional cost of treatment (drug costs and chemotherapy administration costs) is based on people having a further 8 cycles of treatment. This reflects the average number of cycles reported in the PARAMOUNT clinical trial.
  - the percentage of people who had 4 cycles of pemetrexed and cisplatin chemotherapy and who are eligible to have pemetrexed maintenance therapy is 82% (around 570 people), based on Cancer Drugs Fund notifications for 2015/16.

### **4 Resource impact**

- 4.1 The list price of pemetrexed has a discount that is commercial in confidence. The discounted price of pemetrexed can be put into the template to calculate the resource impact of the guidance.

### **5 Savings and benefits**

- 5.1 Pemetrexed improves overall survival compared with best supportive care. Evidence is limited, but the committee concluded that there was sufficient evidence that the treatment offers extension to life of at least 3 months.

### **6 Implications for commissioners**

- 6.1 There is no resource impact to the NHS as a whole, but costs will now come under routine commissioning. NHS England must fund treatment as outlined in the [guidance](#).
- 6.2 Pemetrexed for the maintenance treatment of non-squamous non-small-cell lung cancer after pemetrexed and cisplatin induction

therapy falls within the programme budgeting category 2D: Cancers & Tumours – Lung.

## About this resource impact report

This resource impact report accompanies the NICE technology appraisal guidance on [pemetrexed maintenance treatment for non-squamous non-small-cell lung cancer after pemetrexed and cisplatin](#) and should be read in conjunction with it. See [terms and conditions](#) on the NICE website.

### This report is written in the following context

This report represents the view of NICE, which was arrived at after careful consideration of the available data and through consulting healthcare professionals. The report is an implementation tool and focuses on the recommendations that were considered to have a significant impact on national resource use.

Assumptions used in the report are based on assessment of the national average. Local practice may be different from this, and the impact should be estimated locally.

Implementation of the guidance is the responsibility of local commissioners and providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this costing tool should be interpreted in a way that would be inconsistent with compliance with those duties.

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