NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Tarlatamab for treating small-cell lung cancer that has progressed after platinum-based chemotherapy ID6617

Draft scope

Draft remit/evaluation objective

To appraise the clinical and cost effectiveness of tarlatamab within its marketing authorisation for small cell lung cancer with disease progression on or after platinum-based chemotherapy.

Background

There are two types of lung cancer: non-small-cell lung cancer and small-cell lung cancer. Small-cell lung cancer (SCLC) is a type of lung cancer that grows rapidly and spreads quickly to other parts of the body. Limited disease is when the cancer has not spread beyond one lung or nearby lymph nodes and extensive disease is when the cancer has spread beyond one lung.[1]

Common symptoms of SCLC include weight loss, malaise, bone pain, breathlessness and haemoptysis. Lung cancer is the 3rd most common cancer in the UK, accounting for 13% of all new cancer cases.[2] In 2023, 37,750 were people diagnosed with lung cancer in England, of which 6.8% were SCLC.[3] The prognosis for patients with extensive-stage SCLC is poor, with a median survival of 8 to 13 months from diagnosis.[4]

Surgical intervention has limited use in SCLC because most patients present with advanced disease.[5] The NICE guideline 'Lung cancer: diagnosis and management (NG122)' recommends that relapsed SCLC is treated with an anthracycline-containing regimen or retreated with a platinum-based regimen to a maximum of six cycles. Radiotherapy can be offered for the palliation of local symptoms. In addition, NICE technology appraisal guidance 184 recommends oral topotecan as an option only for people with relapsed SCLC when re-treatment with the first-line regimen is not considered appropriate and the combination of cyclophosphamide, doxorubicin and vincristine is contraindicated.

The technology

Tarlatamab (Imdylltra, Amgen) does not currently have a marketing authorisation for treating small cell lung cancer with disease progression on or after platinum-based chemotherapy. It has been studied in a randomised, open-label phase 3 study compared with standard care for treating people with relapsed small cell lung cancer after platinum-based first-line chemotherapy.

Intervention(s)	Tarlatamab
Population(s)	People with small cell lung cancer that has progressed on or after platinum-based chemotherapy

Comparators	• Cyclophophamide with doxorubicin and vincristine (CAV) • Platinum-based chemotherapy • Oral topotecan (when re-treatment with the first-line regimen is not considered appropriate and the combination of cyclophosphamide, doxorubicin and vincristine is contraindicated) • Best supportive care
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rates • adverse effects of treatment • health-related quality of life.
Economic analysis	The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year. The reference case stipulates that the time horizon for estimating clinical and cost effectiveness should be sufficiently long to reflect any differences in costs or outcomes between the technologies being compared. Costs will be considered from an NHS and Personal Social Services perspective. The availability of any commercial arrangements for the intervention, comparator and subsequent treatment technologies will be taken into account. The availability and cost of biosimilar and generic products should be taken into account.
Other considerations	Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.
Related NICE recommendations	**Related technology appraisals:** Durvalumab for treating limited-stage small-cell lung cancer after platinum-based chemoradiotherapy (2025) NICE technology appraisal guidance 1099 Tarlatamab for treating advanced small-cell lung cancer after 2 or more treatments (2025) NICE technology appraisal guidance 1091.

	Atezolizumab with carboplatin and etoposide for untreated extensive-stage small-cell lung cancer (2020) NICE technology appraisal guidance 638. Review date not stated Topotecan for the treatment of relapsed small-cell lung cancer (2009) NICE technology appraisal guidance 184. Last reviewed February 2013 **Related technology appraisals in development:** Lurbinectedin with atezolizumab for maintenance treatment of extensive-stage small-cell lung cancer PD. NICE technology appraisal guidance [ID6526] Publication expected December 2026 Pembrolizumab with olaparib and chemoradiation for previously untreated limited-stage small-cell lung cancer. NICE technology appraisal guidance [ID6412] Publication date to be confirmed Serplulimab with chemotherapy for untreated extensive-stage small-cell lung cancer. NICE technology appraisal guidance [ID6346] Publication date to be confirmed Tislelizumab with platinum-based chemotherapy and etoposide for untreated extensive-stage small-cell lung cancer. NICE technology appraisal guidance [ID6158] Publication date to be confirmed **Related NICE guidelines:** Lung cancer: diagnosis and management (2019, updated 2024) NICE guideline 122. Suspected cancer: recognition and referral (2015, updated 2023) NICE guideline NG12. Last reviewed December 2021 Improving supportive and palliative care for adults with cancer (2004) NICE guideline CSG4. Review date not stated **Related interventional procedures:** Irreversible electroporation for treating primary lung cancer and metastases in the lung (2013) NICE interventional procedures guidance 441. Review date not stated Microwave ablation for treating primary lung cancer and metastases in the lung (2022) NICE interventional procedures guidance 716. Last reviewed February 2025 **Related quality standards:** Suspected cancer (2016 updated 2017) NICE quality standard 124 Lung cancer in adults (2012 updated 2019) NICE quality standard 17

Questions for consultation

Where do you consider tarlatamab will fit into the existing care pathway for small-cell lung cancer?

Would tarlatamab be used to treat only extensive-stage small-cell lung cancer or would it also be used to treat limited-stage small-cell lung cancer?

If tarlatamab would also be used to treat limited-stage small cell lung cancer, would durvalumab be a relevant comparator in this evaluation?

Please select from the following, will tarlatamab be:
A. Prescribed in primary care with routine follow-up in primary care
B. Prescribed in secondary care with routine follow-up in primary care
C. Prescribed in secondary care with routine follow-up in secondary care
D. Other (please give details):
For comparators and subsequent treatments, please detail if the setting for prescribing and routine follow-up differs from the intervention.

Would tarlatamab be a candidate for managed access?

Do you consider that the use of tarlatamab can result in any potential substantial health-related benefits that are unlikely to be included in the QALY calculation?

Please identify the nature of the data which you understand to be available to enable the committee to take account of these benefits.

Please indicate if any of the treatments in the scope are used in NHS practice differently than advised in their Summary of Product Characteristics. For example, if the dose or dosing schedule for a treatment is different in clinical practice. If so, please indicate the reasons for different usage of the treatment(s) in NHS practice. If stakeholders consider this a relevant issue, please provide references for data on the efficacy of any treatments in the pathway used differently than advised in the Summary of Product Characteristics.

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which tarlatamab will be licensed;

- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by making it more difficult in practice for a specific group to access the technology;

- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the committee to identify and consider such impacts.

NICE intends to evaluate this technology through its Single Technology Appraisal process. (Information on NICE's health technology evaluation processes is available

at https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-technology-appraisal-guidance/changes-to-health-technology-evaluation).

References

1. Cancer Research UK, Limited and extensive stage (small cell lung cancer). (Accessed October 2025)

2. Cancer Research UK, Lung cancer statistics. (Accessed October 2025)

3. Royal College of Surgeons of England (2025), National Lung Cancer Audit: State of the Nation Report. (Accessed October 2025)

4. Blackhall F, Girard N, Livartowski A, McDonald L, Roset M, Lara N, Juarez García A. Treatment patterns and outcomes among patients with small-cell lung cancer (SCLC) in Europe: a retrospective cohort study. BMJ Open. 2023 Feb 6;13(2):e052556. (Accessed October 2025)

5. BMJ. BMJ Best Practice: Small cell lung cancer. (Accessed October 2025)