NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE
Health Technology Evaluation

Trilaciclib for preventing myelosuppression caused by chemotherapy for extensive-stage small-cell lung cancer ID6651

Draft scope

Draft remit/evaluation objective

To appraise the clinical and cost effectiveness of trilaciclib for preventing myelosuppression caused by chemotherapy for extensive-stage small-cell lung cancer.

Background

Lung cancer falls into 2 main histological categories: non-small-cell lung cancers and small-cell lung cancers. Small-cell lung cancer (SCLC) is a type of cancer that grows rapidly and spreads quickly to other parts of the body. It can be classified as limited or extensive disease. Extensive disease is when the cancer has spread beyond one lung and nearby lymph nodes, making radiotherapy unsuitable.

Lung cancer is the 3rd most common cancer in the UK, accounting for 13% of all new cancer cases between 2017 and 2019.[1] In 2022, 36,886 people were diagnosed with lung cancer in England, of which 6.8% were SCLC.[2] The prognosis for patients with extensive-stage SCLC is poor, with a 5-year survival rate of 10%.[3] Literature suggests that 92% people experienced at least 1 chemotherapy-induced myelosuppression in extensive-stage small cell lung cancer.[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 platinum-based combination chemotherapy for first-line treatment of extensive-stage SCLC, up to a maximum of six cycles.

In addition, NICE recommends the following treatments as an option for untreated extensive-stage SCLC in adults who have an Eastern Cooperative Oncology Group performance status of 0 or 1:

- atezolizumab with carboplatin and etoposide (NICE technology appraisal guidance 638)
- durvalumab with etoposide and either carboplatin or cisplatin (NICE technology appraisal guidance 1041).

Myelosuppression also known as bone marrow suppression is where the bone marrow doesn't make enough blood cells or platelets. It occurs when chemotherapy damages the bone marrow, slowing or stopping the production of blood cells. This results in decreased or faulty production of red cells, white cells and platelets. Myelosuppression increases the risk of blood disorders like anaemia or infections and bleeding issues.

Myelosuppression is usually treated with drugs such as erythropoiesis-stimulating agents or colony-stimulating factors to increase red blood cell, neutrophil or platelet

production. Antibiotics can be used to treat infections and blood or platelet transfusions can be used to replace reduced cell counts. Management may also include reducing or temporarily stopping chemotherapy that caused myelosuppression.

The technology

Trilaciclib (Zinmyleo, Pharmacosmos) does not currently have a marketing authorisation in the UK for the prevention of chemotherapy-induced myelosuppression for extensive-stage small cell lung cancer. It has been studied in clinical trials in people with newly diagnosed extensive-stage small-cell lung cancer.

Intervention(s)	Trilaciclib
Population(s)	Adults with newly diagnosed extensive-stage small cell lung cancer
Comparators	Established clinical management without trilaciclib, including but not limited to: • erythropoiesis-stimulating agents • colony-stimulating factors
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • plasma concentration • incidence and duration of severe neutropenia • 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 with etoposide and either carboplatin or cisplatin for untreated extensive-stage small-cell lung cancer (2025). NICE technology appraisal TA1041 Atezolizumab with carboplatin and etoposide for untreated extensive-stage small-cell lung cancer (2020). NICE technology appraisal 638. **Related technology appraisals in development:** Serplulimab with carboplatin and etoposide for untreated extensive-stage small-cell lung cancer. NICE technology appraisal ID6346. **Related NICE guidelines:** Lung cancer: diagnosis and management (2019) NICE guideline NG122. Updated 2024. **Related quality standards:** Lung cancer in adults (2012). NICE quality standard 17. Updated 2019.

Questions for consultation

Where do you consider trilaciclib will fit into the existing care pathway extensive-stage small-cell lung cancer?

What is standard care for preventing myelosuppression caused by chemotherapy for extensive-stage small-cell lung cancer?

What is standard care for treating myelosuppression?

Have all relevant comparators been included in the draft scope?

Please select from the following, will trilaciclib 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 trilaciclib be a candidate for managed access?

Do you consider that the use of trilaciclib 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.

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 trilaciclib 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, Lung cancer statistics (Accessed February 2026)
2. National Lung Cancer Audit (2024), National Lung Cancer Audit State of the Nation 2024, version 2 (Accessed February 2026)
3. Khakwani A, Rich AL, Tata LJ et al. (2014) Small-Cell Lung Cancer in England: Trends in Survival and Chemotherapy Using the National Lung Cancer Audit. PLOS ONE. 2014. 9 (2) e89426 (Accessed February 2026)
4. Fei K, Yang W, Duan J et al. (2025) Burden of chemotherapy-induced myelosuppression (CIM) in Chinese patients with extensive-stage small cell lung cancer (ES-SCLC): A retrospective real-world study. Chinese Medical Journal Pulmonary and Critical Care Medicine 3(3), 209-17 (Accessed February 2026)
5. American Cancer Society, Surgery for Small Cell Lung Cancer (Accessed February 2026)