NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Datopotamab deruxtecan for treating advanced non-small-cell lung cancer after platinum-based chemotherapy ID6241

Draft scope

Draft remit/evaluation objective

To appraise the clinical and cost effectiveness of datopotamab within its marketing authorisation for treating advanced non-small-cell lung cancer after platinum-based chemotherapy with or without immunotherapy or a targeted anti-cancer treatment..

Background

Lung cancer is the third most common cancer and the most common cause of cancer death in the UK, accounting for 10% of all new cancer cases and 20% of all cancer deaths in 2020.[1] There were around 37,000 new lung cancer cases and 27,000 deaths from lung cancer in England in 2020.[1] Most lung cancers are diagnosed at an advanced stage, when the cancer has spread to lymph nodes and other organs in the chest (locally advanced disease; stage 3) or to other parts of the body (metastatic disease; stage 4).[2] In 2022, 92% (around 33,000) of people diagnosed with lung cancer in England had NSCLC.[2] TROP 2 is a biomarker which has been estimated to be expressed on 64 to 75% of NSCLC and may be associated with worse survival outcomes.[3,4]

For untreated metastatic non-squamous NSCLC people may be offered pembrolizumab with pemetrexed and platinum chemotherapy (TA683) or pemetrexed and platinum chemotherapy irrespective of PD-L1 expression. If the non-squamous NSCLC expressed PD-L1 on less than 50% of tumour cells, people may be offered atezolizumab plus bevacizumab, carboplatin and paclitaxel (TA584) or pemetrexed with platinum doublet chemotherapy. If the non-squamous NSCLC expressed PD-L1 on over 50% of tumour cells they may be offered pembrolizumab (TA531) or atezolizumab (TA705) monotherapy.

For untreated squamous NSCLC people may be offered pembrolizumab with carboplatin and paclitaxel (TA770) if the NSCLC expresses PD-L1 on less than 50% of cells or on over 50% of cells if there is a need for urgent clinical intervention. If the squamous NSCLC expresses PD-L1 on less than 50% of its tumour cells people may be offered pembrolizumab (TA531) or atezolizumab (TA705) monotherapy.

For NSCLC that has been previously treated with chemotherapy, nivolumab (TA713 and TA655), atezolizumab (TA520) and pembrolizumab (TA428) monotherapies may be offered. Alternatively, docetaxel may be offered alone or with nintedanib (TA347)

The technology

Datopotamab deruxtecan (Brand name unknown, Daiichi Sankyo) does not currently have a marketing authorisation in the UK for treating advanced NSCLC after platinum-based chemotherapy with or without immunotherapy or a targeted anti-cancer treatment. It is being studied in a clinical trial compared with docetaxel in people with stage 3B, 3C or 4 NSCLC which has progressed after treatment with

platinum chemotherapy alone or with an immunotherapy or a targeted anti-cancer treatment.

Intervention(s)	Datopotamab deruxtecan
Population(s)	People with advanced or metastatic NSCLC which has progressed after prior treatment with platinum chemotherapy alone or with a PD-L1 or PD-1 inhibitor or a targeted anti-cancer treatment.
Subgroups	If the evidence allows, the following subgroups will be considered: • histology • disease stage • presence or absence of targetable genetic alteration • previous treatments • TROP2 expression • newly diagnosed metastatic or recurrent distal metastatic disease after surgery
Comparators	• Docetaxel • Docetaxel with nintedanib For people who have not had an immunotherapy: • Nivolumab monotherapy • Atezolizumab monotherapy • Pembrolizumab monotherapy
Outcomes	The outcome measures to be considered include: • progression-free survival • overall-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. The economic modelling should include the costs associated with diagnostic testing for TROP2 in people with NSCLC who would not otherwise have been tested. A sensitivity analysis should be provided without the cost of the diagnostic test. See section 4.8 of the guidance development manual (available here: https://www.nice.org.uk/process/pmg36/chapter/introduction-to-health-technology-evaluation).
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 NICE guidelines:** Lung cancer: diagnosis and management (2023) NICE guideline 122 **Related diagnostics guidance:** EGFR-TK mutation testing in adults with locally advanced or metastatic non-small-cell lung cancer (2013) NICE diagnostics guidance 9. **Related quality standards:** Lung cancer in adults (2012). NICE quality standard 17.
Related National Policy	The NHS Long Term Plan, 2019. NHS Long Term Plan NHS England (2023) Manual for prescribed specialist services (2023/2024) Chapter 105: Specialist cancer services (adults).

Questions for consultation

Many of the frequently asked consultation questions are already included in the consultation comments form. Insert any key questions that have been identified for consultation. For example, if you have a specific question about whether a technology is a relevant comparator or what treatments are established clinical management include it below.

Where do you consider datopotamab deruxtecan will fit into the existing care pathway for the disease?

Would you expect the effectiveness of datopotamab deruxtecan to vary by level of TROP2 expression on tumours, if so how?

If recommended, would datopotamab deruxtecan be used to treat NSCLC with a particular level of TROP2 expression?

Is there a diagnostic test that is used in clinical practice to detect the level of expression of TROP2 on tumour cells?

Is TROP2 expression routinely tested for in NSCLC in NHS clinical practice? If so, please provide details.

Would you expect the effectiveness of datopotamab deruxtecan to vary depending on prior treatment/s? If so, how?

Do you consider that outcomes or responses to subsequent treatments might be different between people who have and haven't had surgery for their NSCLC?

Would the technology be a candidate for managed access?

Do you consider that the use of datopotamab deruxtecan 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 datopotamab deruxtecan 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. NHS England. Cancer Registration Statistics, England 2020. Accessed March 2024

2. Royal College of Surgeons of England (2024). National Lung Cancer Audit: State of the Nation Report 2024. Accessed May 2024

3. Association of tumor TROP2 expression with prognosis varies among lung cancer subtypes. Oncotarget. 2017 Apr 25;8(17):28725-28735.

4. Italiano. A, Leroy. L, Guegan. JP et al. TROP2 expression and response to immune checkpoint inhibition in patients with advanced non-small cell lung cancer. Journal of Clinical Oncology 2023 41:16_suppl, 9040