NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Evaluation

Osimertinib for adjuvant treatment of EGFR mutation-positive non-small-cell lung cancer after complete tumour resection (review of TA761) [ID5120]

Draft scope

Remit/evaluation objective

To appraise the clinical and cost effectiveness of osimertinib within its marketing authorisation for adjuvant treatment of non-small-cell lung cancer.

Background

Lung cancer falls into two main histological categories: around 85 to 90% are non-small-cell lung cancers (NSCLC) and the remainder are small-cell lung cancers.[1] Early-stage disease is localised to the lung and adjacent structures (stage 1, 2 and 3a) and can often be surgically removed (resected). EGFR is a protein found on the surface of cells that is involved in the regulation of cell proliferation. Exons 19 and 21 are part of the EGFR gene that can be mutated by a change to the DNA sequence.

In 2018, 35,239 cases of non-small-cell lung cancer were diagnosed in England.[2] Around 15% of people with NSCLC had surgical resection with curative intent in England and Wales in 2020 and around 10% to 15% of NSCLC tumours have EGFR mutations.[2, 3, 4]

Treatment depends on the location and stage of the cancer. The treatment pathway for NSCLC can be divided into interconnected decision points based on the number staging system and line of therapy. Treatment choices are influenced by the presence of biological markers (including EGFR mutations), oncogenic driver genetic alterations, histology (squamous or non-squamous) and previous treatment. NICE's Technology Appraisal Pathway Pilot scope for treatments for non-small-cell lung cancer outlines in more detail the full NSCLC treatment pathway.

For early-stage NSCLC, NICE guideline 122 Lung cancer: diagnosis and management recommends surgery, radiotherapy, chemoradiotherapy or a combination of these treatments. People may be offered a neo-adjuvant (before surgery) treatment which could be platinum-based chemotherapy, or nivolumab with chemotherapy as recommended by NICE technology appraisal 876. Platinum-based chemotherapy may also be offered as adjuvant treatment (after surgery). NICE technology appraisal 823 recommends atezolizumab in the Cancer Drugs Fund for maintenance treatment after adjuvant chemotherapy in people with stage 2 to 3a NSCLC.

This evaluation is a review of NICE technology appraisal 761. This recommends osimertinib in the Cancer Drugs Fund as adjuvant treatment after complete tumour resection in adults with stage 1b to 2a NSCLC whose tumours have EGFR exon 19 deletions or exon 21 (L858R) substitution mutations. It is recommended only if osimertinib is stopped at 3 years, or earlier if there is disease recurrence or unacceptable toxicity.

The technology

Osimertinib (Tagrisso, AstraZeneca) has a marketing authorisation for adjuvant treatment after complete tumour resection in adult patients with stage 1b to 3a NSCLC whose tumours have EGFR exon 19 deletions or exon 21 (L858R) substitution mutations.

Intervention	Osimertinib
Population	People with stage 1b to 3a NSCLC whose tumours have EGFR exon 19 deletions or exon 21 (L858R) substitution mutations, after complete tumour resection (with or without adjuvant chemotherapy)
Subgroups	If the evidence allows the following subgroups will be considered: • NSCLC stage (1b versus 2-3a) may be considered.
Comparators	• Platinum-based chemotherapy • Established clinical management without osimertinib (that is, active monitoring)
Outcomes	The outcome measures to be considered include: • overall survival • disease-free survival • sites and rates of recurrence • time to treatment discontinuation • 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 use of osimertinib is conditional on the presence of an EGFR mutation. The economic modelling should include the costs associated with diagnostic testing for EGFR in people with resectable, early-stage 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 Technology Appraisals:** Osimertinib for adjuvant treatment of EGFR mutation-positive non-small-cell lung cancer after complete tumour resection. (2022) Technology appraisal guidance 761. Atezolizumab for adjuvant treatment of resected non-small-cell lung cancer. (2022) Technology appraisal guidance 823. **Related Technology Appraisals in Development:** Pembrolizumab for adjuvant treatment of resected non-small-cell lung cancer. Technology appraisal guidance ID3907. Publication date Aug 2024. Nivolumab for adjuvant treatment of resected non-small-cell lung cancer. Technology appraisal guidance ID4053. Publication date TBC. Pembrolizumab with chemotherapy for neoadjuvant and adjuvant treatment of resectable non-small-cell lung cancer. Technology appraisal guidance ID5094. Publication date TBC.

	Durvalumab with chemotherapy for neoadjuvant and adjuvant treatment of resectable non-small-cell lung cancer. Technology appraisal guidance ID6220. Publication date TBC. **Related Guidelines:** Lung cancer: diagnosis and management (2019; updated 2023) NICE guideline 122 **Related Quality Standards:** Lung cancer in adults (2012; updated 2019) Quality standard 17
Related National Policy	The NHS Long Term Plan, 2019. NHS Long Term Plan NHS England (2018/2019) NHS manual for prescribed specialist services (2018/2019) Chapter 105: Specialist cancer services (adults).

Questions for consultation

Where do you consider osimertinib will fit into the existing care pathway for completely resected EGFR mutation-positive non-small-cell lung cancer?

Is adjuvant chemotherapy an appropriate comparator for osimertinib for completely resected EGFR mutation-positive non-small-cell lung cancer?

How is early-stage non-small-cell lung cancer defined in terms of cancer stages? In whom would a complete resection be offered in clinical practice?

Would people who had neo-adjuvant (before surgery) systemic therapy have adjuvant osimertinib in clinical practice?

Do you consider that the use of osimertinib 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 osimertinib is 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. Types of lung cancer. Cancer Research UK. Accessed August 2023

2. NLCA annual report 2022. National Lung Cancer Audit. Accessed August 2023.

3. National Lung Cancer Audit: Spotlight report on molecular testing in advanced lung cancer. (2020) Royal College of Physicians. Accessed August 2023.

4. Prevalence of Epidermal Growth Factor Receptor Exon 20 Insertion Mutations in Non-small-Cell Lung Cancer in Europe: A Pragmatic Literature Review and Meta-analysis. Van Sanden. S, Murton. M et al (2022). Accessed January 2023