NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health Technology Appraisal

Osimertinib for adjuvant treatment of EGFR mutation-positive non-small-cell lung cancer after complete tumour resection

Draft scope

Draft remit/appraisal 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 is the third most common cancer and the most common cause of cancer death in the UK, accounting for 13% of all new cancer cases and 21% of all cancer deaths in 2017.[1] There are around 48,000 new lung cancer cases and 35,000 deaths from lung cancer in the UK every year. Up to 85% of lung cancers are non-small-cell lung cancers (NSCLC).[2]

The majority of 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 III) or to other parts of the body (metastatic disease; stage IV), and usually cannot be surgically removed. Around 18% of people with NSCLC had surgical resection with curative intent in England and Wales in 2017,[3] although surgery is estimated to be a suitable treatment option for up to 30% of people.[4] In addition to surgery, these patients may also have radiotherapy and chemotherapy, or combined chemoradiotherapy, depending on the cancer stage and the general health and preferences of the person with cancer.[5] Despite the curative intent of treatment, survival in early-stage lung cancer is poor, with only about 57% people with stage I, 34% with stage II and 13% with stage III surviving for 5 years after diagnosis.[6]

An estimated 10% to 35% of people with NSCLC have mutations to the protein epidermal growth factor receptor (EGFR).[7] EGFR inhibition may induce cell death and inhibit tumour growth in EGFR-mutated tumour cells. There are currently no EGFR-targeted therapies for resectable NSCLC available in the NHS in England.

The technology

Osimertinib (Tagrisso, AstraZeneca) is a selective, small molecule inhibitor that targets the sensitising and T790M mutant forms of the EGFR-TK. Sensitising EGFR mutations refer to exon 19 deletions and exon 21 L858R point mutations. Osimertinib is administered orally.

Osimertinib does not have a marketing authorisation in the UK for the adjuvant treatment of NSCLC. It is being studied in a phase III trial for the adjuvant treatment stage Ib-IIIa EGFR mutation-positive NSCLC after complete tumour resection. An adjuvant treatment is an additional cancer treatment given after an initial treatment, to lower the risk of the cancer returning.

Intervention(s)	Osimertinib (as an adjuvant treatment)
Population(s)	People with EGFR mutation-positive NSCLC after complete tumour resection
Comparators	Established clinical management without osimertinib
Outcomes	The outcome measures to be considered include: • overall survival • disease-free survival • 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 availability of any managed access arrangement for the intervention 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 5.9 of the Guide to the Methods of Technology Appraisals.
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 and NICE Pathways	**Related Technology Appraisals:** Osimertinib for treating locally advanced or metastatic EGFR

	T790M mutation-positive non-small-cell lung cancer. Technology appraisal guidance 416. Undergoing CDF review; expected publication: 14 October 2020. Osimertinib for untreated EGFR mutation-positive non-small-cell lung cancer. Technology appraisal guidance 621. Undergoing rapid review; expected publication: 14 October 2020. **Related Guidelines:** Lung cancer: diagnosis and management (2019) NICE guideline 122 **Related Quality Standards:** Lung cancer in adults (2012; updated 2019) Quality standard 17 **Related NICE Pathways:** Treating non-small-cell lung cancer (2020) NICE pathway
Related National Policy	**National Service Frameworks:** Cancer **Department of Health:** Department of Health, NHS Outcomes Framework 2016-2017 Department of Health (2014) The national cancer strategy: 4th annual report Department of Health (2011) Improving outcomes: a strategy for cancer Department of Health (2009) Cancer commissioning guidance Department of Health (2007) Cancer reform strategy NHS England (2018/2019) NHS manual for prescribed specialist services (2018/2019) Chapter 105: Specialist cancer services (adults) Department of Health and Social Care, NHS Outcomes Framework 2016-2017 (published 2016): Domains 1, 2, 4, 5. https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017 **Other policies** Independent Cancer Taskforce (2015) Achieving world-class cancer outcomes: a strategy for England 2015-2020

Questions for consultation

What is the current standard care for people with NSCLC after complete tumour resection (with or without adjuvant chemotherapy)?

Would treatment with osimertinib be given in addition to standard care, or it would replace some elements of standard care?

Have all relevant comparators for osimertinib been included in the scope?

Are the outcomes listed appropriate? Are all relevant outcomes listed?

Are there any subgroups of people in whom osimertinib is expected to be more clinically effective and cost effective, or other groups that should be examined separately?

Where do you consider osimertinib will fit into the existing NICE pathway for Treating non-small-cell lung cancer (2020)?

Is testing for EGFR mutations currently routinely done for early-stage NSCLC?

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 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.

Do you consider osimertinib to be innovative in its potential to make a significant and substantial impact on health-related benefits and how it might improve the way that current need is met (is this a 'step-change' in the management of the condition)?

Do you consider that the use of osimertinib can result in any potential significant and 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 Appraisal Committee to take account of these benefits.

To help NICE prioritise topics for additional adoption support, do you consider that there will be any barriers to adoption of this technology into practice? If yes, please describe briefly.

NICE intends to appraise this technology through its Single Technology Appraisal (STA) Process. We welcome comments on the appropriateness of appraising this topic through this process. (Information on the Institute's Technology Appraisal processes is available at http://www.nice.org.uk/article/pmg19/chapter/1-Introduction).

References

1. Lung cancer incidence. Cancer Research UK. Accessed September 2020.
2. Types of lung cancer. Cancer Research UK. Accessed September 2020.
3. NLCA annual report 2018. Accessed September 2020.
4. Lang-Lazdunski L. (2013) Surgery for nonsmall cell lung cancer. 22: 382-404.
5. Lung cancer: diagnosis and management. (2019) NICE guideline 122.
6. Cancer survival in England - adults diagnosed. Office for National Statistics. 2013-2017 dataset.
7. Osimertinib for EGFR-positive non-small cell lung cancer – adjuvant. NIHR Innovation Observatory Health Technology Briefing. August 2020.