Erlotinib and gefitinib for treating non-small cell lung cancer that has progressed following prior chemotherapy (review of NICE technology appraisals 162 and 175): a systematic review and economic evaluation

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Declared competing interests of authors: Dr Anna Mullard has received hospitality from Roche (UK) Ltd.

Published June 2015
DOI: 10.3310/hta19470

Plain English summary

Erlotinib and gefitinib for treating non-small cell lung cancer

Health Technology Assessment 2015; Vol. 19: No. 47
DOI: 10.3310/hta19470

NIHR Journals Library www.journalslibrary.nihr.ac.uk

Plain English summary

Lung cancer is the second most common cancer in the UK, and in 2010 42,000 people in the UK were diagnosed with the disease. Over 75% of lung cancers are of a specific kind called non-small cell lung cancer (NSCLC). People with incurable NSCLC may be given treatment to control symptoms and improve quality of life. When initial treatments are no longer effective, patients who are well enough may receive a follow-on treatment. We considered the benefits and costs of two follow-on drug treatments, erlotinib [Tarceva®, Roche (UK) Ltd] and gefitinib (IRESSA®, AstraZeneca). We looked for evidence comparing these drugs with each other and with other current treatments (the drug docetaxel and supportive care). In this systematic review we identified 12 trials; seven compared the use of gefitinib with the use of docetaxel or supportive care, four compared the use of erlotinib with the use of docetaxel or supportive care and one trial compared the use of erlotinib with the use of gefitinib. We considered the evidence for three groups of people with NSCLC: people who tested positive for the epidermal growth factor receptor (EGFR) mutation, people who tested negative for the EGFR mutation and people who have not been tested or for whom the results of EGFR testing are unknown. For patients with the EGFR mutation, there was limited evidence and we could not determine the best treatment. For patients without the EGFR mutation, we found that the drug docetaxel had more benefits and lower costs than erlotinib, and that docetaxel also offered value for money to the NHS. For patients whose EGFR status is unknown, we found the use of erlotinib to be more effective than supportive care, but erlotinib did not offer value for money to the NHS.

Health Technology Assessment

NICE TAR and DAR

ISSN 1366-5278 (Print)

ISSN 2046-4924 (Online)

Impact factor: 5.116

Health Technology Assessment is indexed in MEDLINE, CINAHL, EMBASE, The Cochrane Library and the ISI Science Citation Index.

This journal is a member of and subscribes to the principles of the Committee on Publication Ethics (COPE) (www.publicationethics.org/).

Editorial contact: nihredit@southampton.ac.uk

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This report

The research reported in this issue of the journal was commissioned and funded by the HTA programme on behalf of NICE as project number 12/49/01. The protocol was agreed in March 2013. The assessment report began editorial review in November 2013 and was accepted for publication in October 2014. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors' report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

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