

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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Plain English summary

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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.

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This report

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