NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Single Technology Appraisal

Bevacizumab in combination with capecitabine for the first-line treatment of metastatic breast cancer

Draft Scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of bevacizumab in combination with capecitabine within its licensed indication for the first-line treatment of metastatic breast cancer.

Background

Breast cancer is the most common malignancy affecting women in the UK. There were over 45,000 women and around 300 men newly diagnosed with breast cancer in England and Wales during 2008. Furthermore, there were around 12,000 deaths due to breast cancer in the UK in 2008; an average rate of 38.6 deaths per 100,000 women and 0.2 deaths per 100,000 men. Approximately 5% of women presenting with breast cancer have advanced disease with distant metastases (where cancer cells have spread to other parts of the body), and it is estimated that around 35% of those presenting with early or localised breast cancer will eventually develop metastatic breast cancer.

The role of current treatments for metastatic breast cancer is to palliate symptoms, prolong survival and maintain a good quality of life with minimal adverse events. Treatment depends on previous therapy, oestrogen receptor status, human epidermal growth factor receptor 2 (HER2) status and the extent of the disease.

The NICE clinical guideline for advanced breast cancer (CG81) recommends first-line treatment with an anthracycline-based chemotherapy regimen. Where an anthracycline is unsuitable (for example, if the person has previously received anthracycline-based adjuvant therapy or has a contraindication to anthracyclines) the clinical guideline recommends docetaxel monotherapy as a first-line treatment for advanced HER2-negative breast cancer. The guideline states that combination chemotherapy may be considered to treat patients with advanced breast cancer for whom a greater probability of response is important and who understand and are likely to tolerate the additional toxicity. NICE technology appraisal guidance No. 116 recommends gemcitabine in combination with paclitaxel. Vinorelbine or capecitabine monotherapy should then be considered for subsequent lines of treatment.

The technology

Bevacizumab (Avastin, Roche Products) is a humanised anti-vascular endothelial growth factor (VEGF) monoclonal antibody that inhibits VEGF-induced signalling and inhibits VEGF-driven angiogenesis. This reduces vascularisation of tumours, thereby inhibiting tumour growth. Bevacizumab is administered by intravenous infusion.

Bevacizumab in combination with capecitabine has a marketing authorisation for the first-line treatment of patients with metastatic breast cancer in whom treatment with other chemotherapy options, including taxanes or anthracyclines, is not considered appropriate. Patients who have received taxane and anthracycline-containing regimens in the adjuvant setting within the last 12 months should be excluded from treatment with bevacizumab in combination with capecitabine.

Intervention	Bevacizumab in combination with capecitabine
Population	Adults with untreated HER2-negative metastatic breast cancer: • for whom treatment with other chemotherapy options, including taxanes or anthracyclines, is not considered appropriate and • who have not received taxane or anthracycline-containing regimens in the adjuvant setting within the last 12 months
Comparators	• Capecitabine monotherapy • Vinorelbine monotherapy
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rate • 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.

Other considerations	Potential subgroups such as by histology and hormone receptor status will be considered if evidence allows. Guidance will be issued in accordance with the marketing authorisation.
Related NICE recommendations	Related Technology Appraisals: Technology Appraisal No. 214, February 2011 'Bevacizumab in combination with a taxane for the first-line treatment of HER2 negative metastatic breast cancer'. Related Guidelines: Clinical Guideline No. 81, February 2009, 'Advanced breast cancer: diagnosis and treatment'. This guidance replaces previous Technology Appraisals No. 30, 54 and 62. Review date February 2012.

Questions for consultation

Is the population defined in the scope appropriate?

Have the most appropriate comparators for bevacizumab in combination with capecitabine for the treatment of metastatic breast cancer for whom treatment with other chemotherapy options, including taxanes or anthracyclines, is not considered appropriate, been included in the scope?

Are the subgroups suggested in 'other considerations' appropriate? Are there any other subgroups of patients in whom the technology is expected to be more clinically effective and cost effective or other groups that should be examined separately?

Please consider whether in the remit or the scope there are any issues relevant to equality. Please pay particular attention to whether changes need to be made to the remit or scope in order to promote equality, eliminate unlawful discrimination, or foster good relations between people who share a characteristic protected by the equalities legislation and those who do not share it, or if there is information that could be collected during the assessment process which would enable NICE to take account of equalities issues when developing guidance.

Do you consider bevacizumab in combination with capecitabine 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 metastatic breast cancer)?

Do you consider that the use of bevacizumab in combination with capecitabine 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