NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Health Technology Appraisal

Bevacizumab in combination with non-taxanes for first line metastatic breast cancer

Draft scope (Pre-referral)

Draft remit/appraisal objective

To appraise the clinical and cost effectiveness of bevacizumab in combination with non-taxane chemotherapy within its licensed indications 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 39,000 women newly diagnosed with breast cancer in England and Wales during 2004 and in 2005 there were around 11,000 deaths, a rate of 40 deaths per 100,000 females. Between 16% and 20% of women (an estimated 6,000 to 8,000 women) presenting with breast cancer have advanced disease with distant metastases, and it is estimated that around 50% 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, HER2 status and the extent of the disease. First line therapy is usually an anthracycline based regimen. Where an anthracycline is unsuitable (for example if the patient has previously received anthracycline-based adjuvant therapy) current NICE guidance recommends the following options: paclitaxel as monotherapy or in combination with gemcitabine, docetaxel as monotherapy but preferably in combination with capecitabine, or paclitaxel plus trastuzumab (in HER-2 positive disease).

The technology

Bevacizumab (Avastin, Roche) 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 non-taxane chemotherapy (includes anthracycline-based [doxorubicin or epirubicin] regimens or capecitabine) does not currently hold a UK marketing authorisation. Bevacizumab has been studied in clinical trials for the treatment of women with untreated metastatic

breast cancer (HER2-negative) in combination with anthracyclines, capecitabine and taxanes.

Bevacizumab in combination with paclitaxel currently has a marketing authorisation for first-line treatment of patients with metastatic breast cancer.

Intervention(s)	Bevacizumab in combination with non-taxane chemotherapy
Population(s)	Women with untreated metastatic breast cancer (HER2-negative)
Standard comparators	Standard chemotherapy for the treatment of metastatic breast cancer in England and Wales: • anthracycline-based regimens or, when anthracyclines are not suitable: • paclitaxel as monotherapy • paclitaxel in combination with gemcitabine • docetaxel as monotherapy • docetaxel in combination with capecitabine
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	Guidance will be issued in accordance with the marketing authorisation

Related NICE recommendations	Related Technology Appraisals: Technology Appraisal No. 30, September 2001, 'Taxanes for the treatment of breast cancer (review)'. Technology Appraisal No. 34, March 2002, 'Trastuzumab for breast cancer.' Technology Appraisal No. 54, December 2002, 'Vinorelbine for the treatment of advanced breast cancer.' Technology Appraisal No. 62, May 2003, 'Capecitabine for the treatment of locally advanced or metastatic breast cancer.' Technology Appraisal No. 116, January 2007, 'Gemcitabine for the treatment of metastatic breast cancer.' Technology Appraisal No. 147, June 2008, 'Bevacizumab in combination with paclitaxel for the treatment of advanced or metastatic breast cancer' Related Guidelines: Advanced breast cancer - diagnosis and treatment. Expected date of issue: February 2009.

Questions for consultation

Are there any 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?

Are there any issues that require special attention in light of the duty to have due regard to the need to eliminate unlawful discrimination and promote equality? Should the remit specify that the appraisal of this technology is for women only?

Which process would be the most suitable for appraising this technology, the single technology or multiple technology process? (Information on these processes is available at http://www.nice.org.uk/aboutnice/howwework/devnicetech/technologyappraisalprocessguides/technology_appraisal_process_guides.jsp)