NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Proposed Health Technology Appraisal

Lapatinib in combination with paclitaxel for the first-line treatment of HER2 positive metastatic breast cancer

Draft scope (Pre-referral)

Draft remit/appraisal objective

To produce a technology appraisal on the clinical and cost effectiveness of lapatinib in combination with paclitaxel within its licensed indication for the first-line treatment of metastatic breast cancer which over-expresses ErbB2 (HER2) receptor.

Background

Breast cancer is the most common cancer affecting women in the UK. In England and Wales, nearly 42,600 people were diagnosed in 2008, and there were nearly 10,700 deaths from breast cancer in 2008.

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. Approximately 25% to 30% of women with metastatic breast cancer have tumours which over-express ErbB2, a protein commonly referred to as HER2 (human epidermal growth factor receptor 2). HER2 helps normal cells grow and divide. HER2 positive tumours are associated with a worse prognosis and reduced overall survival.

The aim of current treatments for metastatic breast cancer is to palliate symptoms, prolong survival and maintain a good quality of life with minimal adverse events. Choice of treatment depends on previous therapy, oestrogen receptor status, 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. Following disease progression on an anthracycline, other chemotherapy options include single-agent or combination taxanes, capecitabine, vinorelbine and gemcitabine. NICE Technology Appraisal No. 34 recommends trastuzumab in combination with paclitaxel as an option for people with tumours expressing HER2 scored at levels of 3+ who have not received chemotherapy for metastatic breast cancer and in whom anthracycline treatment is inappropriate. In clinical practice, trastuzumab in combination with either paclitaxel or docetaxel may be used as first-line therapy for patients with HER2 positive tumours.

The technology

Lapatinib (Tyverb, GlaxoSmithKline) is an oral therapy which inhibits the tyrosine kinase components of the ErbB2 receptor, and a second receptor, ErbB1 (also commonly known as EGFR), which have been implicated in the growth of various tumour types. Stimulation of ErbB1 and ErbB2 is associated with cell proliferation, tumour progression, invasion and metastasis.

Lapatinib in combination with paclitaxel does not have a UK marketing authorisation for the first-line treatment of breast cancer. It is being studied in clinical trials in combination with paclitaxel for the first-line treatment of patients with HER2 positive metastatic breast cancer who have not previously received treatment for metastatic disease.

Intervention(s)	Lapatinib in combination with paclitaxel
Population(s)	Adults with HER2 positive metastatic breast cancer, who have not previously received treatment for metastatic disease
Comparators	Trastuzumab in combination with a taxane
Outcomes	The outcome measures to be considered include: • overall survival • progression free survival • time to progression • response rate • clinical benefit 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 only be issued in accordance with the marketing authorisation.

Related NICE recommendations	Related Technology Appraisals: Technology Appraisal No. 34, Mar 2002, 'Guidance on the use of trastuzumab for the treatment of advanced breast cancer' Technology Appraisal in Preparation, 'Lapatinib and trastuzumab in combination with an aromatase inhibitor for the first-line treatment of metastatic hormone receptor positive breast cancer which over-expresses HER2. Earliest anticipated date of publication TBC. Technology Appraisal in Preparation, 'Lapatinib for the treatment of women with previously treated advanced or metastatic breast cancer.' Suspended. Technology Appraisal Update in Preparation, 'Trastuzumab as monotherapy and in combination with a taxane for the treatment of metastatic breast cancer (to include a review of TA34)'. Suspended. Related Guidelines: Clinical Guideline No.41, Oct 2006, 'Familial breast cancer: the classification and care of women at risk of familial breast cancer in primary, secondary and tertiary care' Clinical Guideline No. 81, Feb 2009, 'Advanced breast cancer: diagnosis and treatment'

Questions for consultation

Have the most appropriate comparators for lapatinib in combination with paclitaxel for the treatment of metastatic breast cancer been included in the scope? Are the comparators listed routinely used in clinical practice?

Are there any subgroups of people 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 the technology 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 the technology 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

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/aboutnice/howwework/devnicetech/technologyappraisalprocessguides/technology_appraisal_process_guides.jsp)