NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Health Technology Appraisal

Bevacizumab in combination with paclitaxel and carboplatin for the first-line treatment of ovarian cancer

Final scope

Remit

To appraise the clinical and cost effectiveness of bevacizumab within its licensed indication in combination with paclitaxel and carboplatin for the first-line treatment of ovarian cancer.

Background

Ovarian cancer is a common gynaecological cancer. It is classified in stages, from stage I to stage IV, according to the FIGO (International Federation of Gynaecology & Obstetrics) system. In stage I, the cancer is confined to one or both ovaries. Stage II ovarian cancer has spread beyond the ovaries to the uterus, fallopian tubes or other areas in the pelvis. In stage III, the cancer has spread beyond the pelvis into the abdominal cavity (IIIA), grown up to 2 cm in size (IIIB), grown above 2 cm in size or affects the para-aortic lymph nodes (IIIC). Stage IV ovarian cancer is defined by distant metastases, that is, the cancer has spread into other body organs such as the liver or lungs.

Ovarian cancer may be asymptomatic in the early stages and approximately 75% of cases are diagnosed with advanced stage III or stage IV disease. In England and Wales in 2007, approximately 6,000 women were diagnosed with ovarian cancer and of these, 4,500 had stage III or IV disease. For women diagnosed with stage III and IV disease, the five-year survival rates are 27% and 16%, respectively. In 2008 there were 3824 deaths from ovarian cancer in England and Wales. The incidence of ovarian cancer increases with age (four out of five cases are diagnosed in women over 50 years) and is higher in women who have BRCA1 or BRCA2 gene mutations.

Standard treatment for ovarian cancer consists of surgery to determine the type and stage of the disease and to remove as much of the cancer as possible. Following surgery, chemotherapy is used to treat any residual disease. Increasingly chemotherapy is given before surgery. NICE Technology Appraisal No. 55 recommends paclitaxel in combination with a platinum-based compound or platinum-based therapy alone (cisplatin or carboplatin) as options for first-line chemotherapy in the treatment of ovarian cancer.

The technology

Bevacizumab (Avastin, Roche Products) is a humanised anti-vascular endothelial growth factor (VEGF) monoclonal antibody that reduces

vascularisation of tumours, inhibiting tumour growth. It is administered by intravenous infusion.

Bevacizumab, in combination with carboplatin and paclitaxel, currently holds a UK marketing authorisation for the front-line treatment of advanced (FIGO stages IIIB, IIIC and IV) epithelial ovarian cancer, fallopian tube, or primary peritoneal cancer.

Intervention(s)	Bevacizumab in combination with paclitaxel and carboplatin
Population(s)	Women with advanced (FIGO stages IIIB, IIIC and IV) epithelial ovarian cancer, fallopian tube, or primary peritoneal cancer who have not received prior chemotherapy for ovarian cancer, fallopian tube, or primary peritoneal cancer
Comparators	Platinum-based chemotherapy (cisplatin or carboplatin with or without paclitaxel) without bevacizumab
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	If the evidence allows, consideration should be given to subgroups of people defined by the presence or absence of residual disease. Guidance will only be issued in accordance with the marketing authorisation.

Related NICE recommendations	Related Technology Appraisals: Technology Appraisal No. 222, April 2011. 'Trabectedin for the treatment of relapsed ovarian cancer.' Currently under review with TA 91. Earliest anticipated date of review publication February 2014. Technology Appraisal No. 91, May 2005. 'Topotecan, pegylated liposomal doxorubicin and paclitaxel for the treatment of advanced ovarian cancer' Currently under review with TA 222. Earliest anticipated date of review publication February 2014. Technology Appraisal No. 55, January 2003. 'Guidance on the use of paclitaxel in the treatment of ovarian cancer.' Transferred to the static guidance list. Technology Appraisal in Preparation, 'Bevacizumab for the treatment of recurrent advanced ovarian cancer'. Earliest anticipated date of publication February 2013. Proposed Technology Appraisal, 'Pazopanib for the treatment of epithelial ovarian, fallopian and peritoneal cancer.' Proposed Technology Appraisal, 'Paclitaxel encapsulated in XR-17 for the treatment of epithelial ovarian, fallopian or peritoneal cancer.' Proposed Technology Appraisal, 'EC145 in combination with pegylated liposomal doxorubicin hydrochloride for the treatment of folate receptor positive, platinum resistant ovarian cancer.' Related Guidelines: Clinical Guideline No. 122, April 2011. 'The recognition and initial management of ovarian cancer'.