NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Single Technology Appraisal

Bevacizumab for treating relapsed, platinum-resistant epithelial ovarian, fallopian tube or primary peritoneal cancer

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of bevacizumab within its marketing authorisation for treating relapsed, platinum-resistant epithelial ovarian, fallopian tube or primary peritoneal cancer.

Background

Ovarian cancer includes a group of tumours that arise from diverse types of tissue contained in the ovary. The most common type of ovarian cancer arises from epithelial cells (the outside layer of cells) on the surface of the ovary, and can often spread from the ovary to any surface within the abdominal cavity including the fallopian tubes and peritoneal cavity. Fallopian tube cancer and primary peritoneal cancer are histologically equivalent diseases to epithelial ovarian cancer. In most cases, ovarian cancer is diagnosed at an advanced stage, when it has spread outside the pelvis into the abdomen or metastasised to distant sites.

The incidence of ovarian cancer increases with age, with over 80% of cases being diagnosed in people over 50 years. In 2012, approximately 6500 people were diagnosed with ovarian cancer or peritoneal cancer in England, and in 2011 there were approximately 3500 deaths from ovarian cancer. The overall 5-year survival rate for ovarian cancer is approximately 43%.

Ovarian cancer may be categorised according to the response to platinum chemotherapy as follows: platinum-sensitive (responds to platinum-based therapy but relapses after 6 months or more); platinum-resistant (relapses within 6 months of completion of platinum-based chemotherapy) and platinum-refractory (does not respond to initial platinum-based chemotherapy). Although a significant percentage of ovarian cancer tumours respond to initial chemotherapy, between 55% and 75% of those tumours that respond recur within 2 years of completing treatment.

NICE Technology Appraisal 91 recommends paclitaxel and pegylated liposomal doxorubicin hydrochloride (PLDH) as options for the second-line or subsequent treatment of platinum-resistant ovarian cancer. It also recommends topotecan for the second-line or subsequent treatment of platinum-resistant ovarian cancer when paclitaxel and PLDH are considered inappropriate.

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 has a marketing authorisation in the UK for use in combination with paclitaxel, topotecan or PLDH for treating adult patients with platinum-resistant recurrent epithelial ovarian, fallopian tube, or primary peritoneal cancer who received no more than two previous chemotherapy regimens and who have not received previous therapy with bevacizumab or other VEGF inhibitors or VEGF receptor-targeted agents.

Intervention(s)	Bevacizumab in combination with paclitaxel, topotecan or pegylated liposomal doxorubicin hydrochloride
Population(s)	Adults with relapsed, platinum-resistant epithelial ovarian, fallopian tube or primary peritoneal cancer, who have received no more than two previous chemotherapy regimens and who have not received prior therapy with bevacizumab or other VEGF-receptor targeted agents
Comparators	• Paclitaxel • Pegylated liposomal doxorubicin hydrochloride • Topotecan (in people for whom paclitaxel and pegylated liposomal doxorubicin hydrochloride are not appropriate)
Outcomes	The outcome measures to be considered include: • overall survival • progression free survival • response rates • incidence of ascites and need for paracentesis • adverse effects of treatment (including bowel perforation) • 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 evidence allows, the chemotherapy regimens in which bevacizumab is used will be considered separately. Guidance will only be issued in accordance with the marketing authorisation. Where the wording of the therapeutic indication does not include specific treatment combinations, guidance will be issued only in the context of the evidence that has underpinned the marketing authorisation granted by the regulator.

Related NICE recommendations and NICE pathways	Related Technology Appraisals: Technology Appraisal No. 285, May 2013, 'Bevacizumab in combination with gemcitabine and carboplatin for treating the first recurrence of platinum-sensitive advanced ovarian cancer'. Review proposal date June 2016. Technology Appraisal No. 284, May 2013, 'Bevacizumab in combination with paclitaxel and carboplatin for first-line treatment of advanced ovarian cancer'. Review proposal date April 2016. Technology Appraisal in Preparation, 'Topotecan, pegylated liposomal doxorubicin hydrochloride, paclitaxel, trabectedin and gemcitabine for advanced ovarian cancer (for recurrent disease only) (Review of TA 91 and TA 222) [ID 468]'. Earliest anticipated date of publication TBC. Technology appraisal in Preparation, 'Olaparib for maintenance treatment of BRCA 1 or 2 mutated, relapsed, platinum-sensitive ovarian, fallopian tube and peritoneal cancer in people whose relapsed disease has responded to platinum-based chemotherapy [ID 735]'. Earliest anticipated date of publication September 2015. Related Guidelines: Clinical Guideline No. 122, April 2011, 'The recognition and initial management of ovarian cancer.' Review proposal date April 2014. Related Quality Standards Quality Standard No. 18, May 2012, 'Ovarian cancer' Review Proposal Date May 2017. http://www.nice.org.uk/guidance/qualitystandards/qualitystandards.jsp Related NICE Pathways: Ovarian cancer, Pathway created: February 2012. http://pathways.nice.org.uk/pathways/ovarian-cancer
Related NHS England Policy	'Improving Outcomes: A Strategy for Cancer, second annual report, 2012', March 2013. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/136551/Improving_outcomes_second_annual_report.pdf