

**NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE****Health Technology Appraisal****Olaparib for maintenance treatment of BRCA-mutated ovarian, fallopian tube and peritoneal cancer after response to first-line platinum-based chemotherapy****Final scope****Remit/appraisal objective**

To appraise the clinical and cost effectiveness of olaparib within its marketing authorisation for maintenance treatment of BRCA-mutated ovarian, fallopian tube and peritoneal cancer after response to first-line platinum-based chemotherapy.

**Background**

Ovarian cancer is a cancerous growth that occurs in the ovary or fallopian tubes. The most common type of ovarian cancer, high-grade serous type, is thought to arise from the peritoneum or fallopian tube and presents after it has spread to the ovary. Ovarian cancer is classified from stage I to stage IV. Advanced ovarian cancer falls within stages II and IV; in stage II the disease has grown outside the ovaries but is still within the pelvic area, stage III denotes disease that is locally advanced and has spread outside the pelvis into the abdominal cavity, and stage IV denotes that distant metastasis to other body organs such as the liver and the pleura (two thin layers of tissue that protect and cushion the lungs) has occurred. Most people are diagnosed with advanced stage disease. Some people have gene mutations that may increase the risk of ovarian cancer. Mutated inherited genes that increase the risk of ovarian cancer include BRCA 1 and 2.

Ovarian cancer rates in the UK have remained stable since the early 1990s<sup>1</sup>. In 2016, 6,430 people were diagnosed with ovarian cancer in England and there were 3,693 deaths from ovarian cancer in 2016<sup>2,3</sup>. The 5-year survival for women diagnosed with ovarian cancer between 2011 and 2015 and followed up to 2016, in England was 42.9%<sup>4</sup>. The incidence of ovarian cancer increases with age – between 2013-2015 over half (53%) of the people with ovarian cancer in the UK were diagnosed when they were aged 65 years or older<sup>1</sup>.

NICE technology appraisal guidance 55 recommends paclitaxel in combination with a platinum-based compound or platinum-based therapy alone (cisplatin or carboplatin) as alternatives for first-line chemotherapy (usually following surgery) in the treatment of ovarian cancer. In people whose disease recurs following first-line therapy, NICE technology appraisal guidance 389 recommends paclitaxel as monotherapy or in combination with platinum, and pegylated liposomal doxorubicin hydrochloride as monotherapy

or in combination with platinum, for treating recurrent ovarian cancer. There are no maintenance treatments currently licensed for use after response to first-line platinum-based chemotherapy, however technology appraisals 381 and 528 recommend PARP inhibitors as maintenance treatments at later stages.

**The technology**

Olaparib (Lynparza; AstraZeneca) is a poly-ADP-ribose polymerase (PARP) inhibitor which inhibits PARP proteins involved in DNA repair. It is administered orally.

Olaparib does not currently have a marketing authorisation in the UK for treating ovarian cancer after response to initial platinum-based chemotherapy. It has been studied in a clinical trial as maintenance monotherapy, compared with placebo, in patients with BRCA-mutated advanced ovarian, primary peritoneal and/or fallopian tube cancer who have responded (completely or partially) to first-line platinum-based chemotherapy.

Olaparib has a marketing authorisation for the following related indication: ‘as monotherapy for the maintenance treatment of adult patients with platinum-sensitive relapsed high-grade epithelial ovarian, fallopian tube, or primary peritoneal cancer who are in response (complete or partial) to platinum-based chemotherapy’.

<b>Intervention(s)</b>	Olaparib
<b>Population(s)</b>	People with BRCA-mutated advanced ovarian, fallopian tube or peritoneal cancer that has responded (completely or partially) to first-line platinum-based chemotherapy
<b>Comparators</b>	Routine surveillance
<b>Outcomes</b>	The outcome measures to be considered include: <ul style="list-style-type: none"> <li>• overall survival</li> <li>• progression-free survival</li> <li>• progression-free survival 2 (i.e. progression-free survival on next line of therapy)</li> <li>• time to next line of therapy</li> <li>• adverse effects of treatment</li> <li>• health-related quality of life</li> </ul>

<p><b>Economic analysis</b></p>	<p>The reference case stipulates that the cost effectiveness of treatments should be expressed in terms of incremental cost per quality-adjusted life year</p> <p>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</p> <p>Costs will be considered from an NHS and Personal Social Services perspective</p> <p>The availability of any patient access schemes for the intervention or comparator technologies will be taken into account.</p> <p>The economic modelling should include the cost associated with diagnostic testing in people with platinum-sensitive ovarian, fallopian tube and peritoneal cancer who would not otherwise have been tested. A sensitivity analysis should be provided without the cost of the diagnostic test. <a href="#">See section 5.9 of the Guide to the Methods of Technology Appraisals</a></p>
<p><b>Other considerations</b></p>	<p>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</p>
<p><b>Related NICE recommendations and NICE Pathways</b></p>	<p><b>Related Technology Appraisals:</b></p> <p><a href="#">Niraparib for maintenance treatment of relapsed, platinum-sensitive ovarian, fallopian tube and peritoneal cancer</a> (2018) NICE technology appraisal guidance TA528. Review date July 2020</p> <p><a href="#">Olaparib for maintenance treatment of relapsed, platinum-sensitive, BRCA mutation-positive ovarian, fallopian tube and peritoneal cancer after response to second-line or subsequent platinum-based chemotherapy</a> (2016) NICE technology appraisal guidance 381. Currently under review</p> <p><a href="#">Topotecan, pegylated liposomal doxorubicin hydrochloride, paclitaxel, trabectedin and gemcitabine for treating recurrent ovarian cancer</a> (2016) NICE technology appraisal guidance 389. Review date April 2019</p> <p><a href="#">Guidance on the use of paclitaxel in the treatment of ovarian cancer</a> (2003) NICE technology appraisal</p>

	<p>guidance 55. Reviewed August 2015</p> <p><a href="#">Bevacizumab in combination with gemcitabine and carboplatin for treating the first recurrence of platinum-sensitive advanced ovarian cancer</a> (2013) NICE technology appraisal guidance 285. Reviewed June 2016, guidance on static list</p> <p><a href="#">Bevacizumab in combination with paclitaxel and carboplatin for first-line treatment of advanced ovarian cancer</a> (2013) NICE technology appraisal guidance 284. Reviewed June 2016</p> <p><b>Appraisals in development (including suspended appraisals)</b></p> <p><a href="#">Olaparib for maintenance treatment of recurrent, platinum-sensitive ovarian, fallopian tube and peritoneal cancer that has responded to platinum-based chemotherapy (including a review of technology appraisal no. 381)</a> NICE technology appraisal guidance [ID1296]. Publication expected January 2019</p> <p><a href="#">Ovarian, fallopian tube and peritoneal cancer – rucaparib</a>. NICE technology appraisal guidance [ID1184]. Publication expected: TBC</p> <p>Rucaparib for maintenance treatment of recurrent epithelial ovarian, fallopian tube and peritoneal cancer that has responded to platinum-based chemotherapy [ID1485]. Publication expected: TBC</p> <p><b>Related Guidelines:</b></p> <p><a href="#">Ovarian cancer: recognition and initial management</a> (2011) NICE guideline CG122. Reviewed November 2017.</p> <p><b>Related Quality Standards:</b></p> <p><a href="#">Ovarian cancer</a> (2012) NICE quality standard 18. Next review: August 2018</p> <p><b>Related NICE Pathways:</b></p> <p><a href="#">Ovarian cancer</a> (2016) NICE Pathway</p>
<p><b>Related National Policy</b></p>	<p>NHS England. <a href="#">2013/14 NHS Standard Contract for Cancer: Chemotherapy</a> (Adult). B15/S/a.</p> <p>NHS England. <a href="#">2013/14 NHS Standard Contract for Cancer: Gynaecological</a>. E10/S/f/.</p> <p><b>Other policies</b></p> <p>NHS England (2015) <a href="#">Clinical Commissioning Policy</a>:</p>

	<p><a href="#">Genetic Testing for BRCA1 and BRCA2 Mutations</a></p> <p>Public Health England (2015) <a href="#">Living with and beyond ovarian cancer</a></p> <p>Department of Health (2016) <a href="#">NHS outcomes framework 2016 to 2017</a></p> <p>Independent Cancer Taskforce (2015) <a href="#">Achieving world-class cancer outcomes: a strategy for England 2015-2020</a></p> <p>Department of Health (2014) <a href="#">The national cancer strategy: 4<sup>th</sup> annual report</a></p>
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## References

1. Cancer Research UK. [About ovarian cancer](#). Accessed June 2018
2. Office for National Statistics (2016). [Cancer Registration Statistics, England 2016](#). Accessed June 2018
3. Office for National Statistics (2016) [Death Registrations Summary Tables – England and Wales](#). Accessed June 2018
4. Office for National Statistics (2017). [Cancer survival in England: Patients diagnosed between 2010 and 2014 and followed up to 2016](#). Accessed June 2018
5. NICE technology appraisal guidance 389 (2016) [Topotecan, pegylated liposomal doxorubicin hydrochloride, paclitaxel, trabectedin and gemcitabine for treating recurrent ovarian cancer](#). Accessed June 2018