

**NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE**

**Health Technology Appraisal**

**Abiraterone acetate for the treatment of metastatic hormone relapsed prostate cancer not previously treated with chemotherapy [ID503]**

**Final scope**

**Remit/appraisal objective**

To appraise the clinical and cost effectiveness of abiraterone acetate in combination with prednisone or prednisolone within its licensed indication for the treatment of metastatic, castration-resistant prostate cancer in people who have not been previously treated with chemotherapy.

**Background**

Prostate cancer is a disease in which tumours develop in the prostate, a gland in the male reproductive system. In England and Wales, there were over 36,900 people newly diagnosed with prostate cancer and over 9,600 deaths from prostate cancer in 2010. The incidence of prostate cancer increases with age. The cause of prostate cancer is thought to be multi-factorial, involving both environmental and genetic factors.

It is estimated that 55% to 65% of people with prostate cancer will go on to develop metastatic disease (that is, the cancer spreads to other parts of the body). In over 90% of people with metastatic prostate cancer, the disease will initially respond to standard hormonal therapy but eventually become resistant to it. This clinical condition is described as castration-resistant prostate cancer, androgen-independent prostate cancer or hormone-refractory prostate cancer.

NICE clinical guideline 58 ('Prostate cancer') states that localised disease should be managed with active surveillance, surgical removal of the prostate (known as prostatectomy) or high-dose radical radiotherapy. However, once the cancer has become metastatic, it is unlikely that it will be able to be cured, though the progression of the cancer can be slowed with treatment. Stopping the body making testosterone can slow the growth of the cancer, or even shrink it. People with prostate cancer may therefore receive hormonal therapy to reduce androgen levels. Standard hormonal treatments for metastatic disease are orchidectomy (surgical removal of the testes, also known as 'surgical castration') or use of a gonadotrophin-releasing hormone analogue such as goserelin, leuprorelin or triptorelin (also known as 'medical castration'). For metastatic castration-resistant prostate cancer, NICE Technology Appraisal No. 101 recommends docetaxel as a treatment option for hormone-refractory prostate cancer associated with a Karnofsky performance-status score of 60% or more.

### The technology

Abiraterone acetate (Zytiga, Janssen) is a selective androgen biosynthesis inhibitor. Abiraterone acetate blocks cytochrome P17 (an enzyme thought to play a role in the production of testosterone), thereby stopping the testes and other tissues in the body from making testosterone. It is administered orally in combination with prednisone or prednisolone.

Abiraterone acetate does not have a UK marketing authorisation for the treatment of metastatic castration-resistant prostate cancer not previously treated with chemotherapy. In November 2012, the Committee for Medicinal Products for Human Use (CHMP) adopted a positive opinion recommending an extension to the marketing authorisation for abiraterone with prednisone or prednisolone to include the indication of metastatic castration-resistant prostate cancer in adult men who are asymptomatic or mildly symptomatic after failure of androgen deprivation therapy in whom chemotherapy is not yet clinically indicated.

<b>Intervention(s)</b>	Abiraterone acetate in combination with prednisone or prednisolone
<b>Population(s)</b>	Adults with metastatic castration-resistant prostate cancer who are asymptomatic or mildly symptomatic after failure of androgen deprivation therapy in whom chemotherapy is not yet clinically indicated
<b>Comparators</b>	<ul style="list-style-type: none"> <li>• Docetaxel</li> <li>• Best supportive care (this may include radiotherapy, radiopharmaceuticals, analgesics, bisphosphonates, further hormonal therapies, and corticosteroids)</li> </ul>
<b>Outcomes</b>	<p>The outcome measures to be considered include:</p> <ul style="list-style-type: none"> <li>• Overall survival</li> <li>• Progression-free survival including radiographic progression-free survival</li> <li>• Response rate</li> <li>• Prostate specific antigen (PSA) response</li> <li>• Adverse effects of treatment</li> <li>• Health-related quality of life</li> </ul>
<b>Economic analysis</b>	<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</p>

	<p>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 should be taken into account in the analysis.</p>
<b>Other considerations</b>	<p>Guidance will only be issued in accordance with the marketing authorisation.</p> <p>The evidence submitted to the appraisal should include clinical criteria to identify the population in the marketing authorisation.</p> <p>Docetaxel is included in the list of comparators because the recommendations in TA101 include patients who are asymptomatic or mildly symptomatic, and clinicians have stated that docetaxel is increasingly used for this patient group, and because of the lack of clear clinical criteria to identify the patient group in the CHMP indication.</p>
<b>Related NICE recommendations</b>	<p>Related Technology Appraisals:</p> <p>Technology Appraisal No. 101, June 2006, 'Docetaxel for the treatment of hormone refractory prostate cancer'. Guidance on static list.</p> <p>Technology Appraisal No. 259, June 2012, 'Abiraterone for castration-resistant metastatic prostate cancer previously treated with a docetaxel-containing regimen'. Review decision date April 2015.</p> <p>Technology Appraisal in Preparation, 'Denosumab for prolonging bone metastasis-free survival in castrate-resistant prostate cancer'. Earliest anticipated date of publication November 2013.</p> <p>Proposed Technology Appraisal, 'Sipuleucel-T for the first line treatment of metastatic castrate resistant prostate cancer'.</p> <p>Suspended Technology Appraisal, 'Atrasentan for hormone refractory prostate cancer'. Earliest anticipated date of publication TBC.</p> <p>Suspended Technology Appraisal, 'Dutasteride for reducing the risk of developing prostate cancer in men who are considered to be at increased risk of developing the disease'. Earliest anticipated date of publication TBC.</p> <p>Related Guidelines:</p>

	<p>Cancer Service Guidance Urological Cancer, September 2002, Improving outcomes in urogenital cancers’.</p> <p>Clinical Guideline No. 58, February 2008, ‘Prostate cancer: diagnosis and treatment’. Update in development, anticipated date of publication January 2014.</p>
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