NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Single Technology Appraisal

Enzalutamide for treating metastatic hormone-relapsed prostate cancer not previously treated with chemotherapy

Final scope

Finalremit/appraisal objective

To appraise the clinical and cost effectiveness of enzalutamide within its licensed indication for treating metastatic, hormone-relapsed prostate cancer for people in whom chemotherapy is not yet clinically indicated.

Background

Prostate cancer is a disease in which tumours develop in the prostate, a gland in the male reproductive system. Its cause is thought to be multi-factorial, involving both environmental and genetic factors. The incidence of prostate cancer increases with age and is higher in men of African-Caribbean family origin. In England, over 35,500 people were newly diagnosed with prostate cancer and over 9100 people died from prostate cancer in 2011.

Around 55–65% of people with prostate cancer develop metastatic disease (that is, the cancer spreads to other parts of the body). Over 90% of people with metastatic prostate cancer initially respond to hormonal therapy but eventually become resistant to it. This clinical condition is described as hormone-relapsed prostate cancer (but the terms ‘castration-resistant prostate cancer’, ‘hormone-refractory prostate cancer’ and ‘androgen-independent prostate cancer’ are also used).

Treatment options for people with hormone-relapsed prostate cancer, in whom chemotherapy is not yet clinically indicated, include abiraterone in combination with prednisone or prednisolone or best supportive care. Sipuleucel-T also has a marketing authorisation for this population, but is not yet available in England.

The technology

Enzalutamide (Xtandi, Astellas Pharma) is an androgen receptor antagonist that acts on different steps in the androgen receptor signalling pathway to decrease proliferation of cancer cells and induce cancer cell death leading to tumour regression. Enzalutamide is administered orally.

Enzalutamide does not currently have a marketing authorisation in the UK, but in October 2014, the European Medicines Agency (EMA) Committee for Medicinal Products for Human Use (CHMP) adopted a positive opinion recommending a variation to the terms of the marketing authorisation for enzalutamide ‘for the treatment of adult men 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'. It has been studied in clinical trials compared with placebo in men with histologically confirmed prostate cancer showing signs of disease progression despite hormonal therapy and whose disease was asymptomatic or mildly symptomatic.

Intervention(s)	Enzalutamide
Population(s)	Adults with asymptomatic or mildly symptomatic metastatic hormone-relapsed prostate cancer in whom chemotherapy is not yet clinically indicated
Comparators	• best supportive care • abiraterone in combination with prednisone or prednisolone
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival (radiographic and prostate specific antigen response) • time to initiation of cytotoxic chemotherapy • 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. The availability of any patient access scheme for the intervention or comparator technologies should be taken into account. Where comparator technologies are available through the Cancer Drugs Fund, the cost incurred by the Cancer Drugs Fund should be used in economic analyses.

Other considerations	If the evidence allows, the impact on quality of life of delaying cytotoxic chemotherapy should be considered in the economic model. 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. 101, June 2006, 'Docetaxel for the treatment of hormone refractory prostate cancer'. Technology Appraisal No. 316, July 2014 'Enzalutamide for metastatic hormone relapsed prostate cancer previously treated with a docetaxel-containing regimen'. Technology Appraisal in preparation, 'Abiraterone for metastatic, hormone-relapsed prostate cancer not previously treated with chemotherapy'. Earliest anticipated date of publication: September 2015. Technology Appraisal in preparation, 'Sipuleucel-T for treating asymptomatic or minimally symptomatic metastatic hormone-relapsed prostate cancer'. Earliest anticipated date of publication: February 2015. Related Guidelines: Clinical Guideline No. 175, January 2014, 'Prostate Cancer: diagnosis and treatment' (replaces CG58). Related Cancer Service Guidance: 'Improving outcomes in urological cancers'. September 2002 Related Pathway: NICE Pathway, 'Prostate cancer' Pathway created: October 2011. Last updated October 2012 http://pathways.nice.org.uk/pathways/prostate-cancer
Related National Policy	Specialist cancer services 105, Manual for prescribed specialised services, November 2012, NHS Commissioning Board, http://www.england.nhs.uk/wp-content/uploads/2012/12/pss-manual.pdf