NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Proposed Health Technology Appraisal

Degarelix for the treatment of advanced hormone-dependent prostate cancer

Draft scope (prereferral)

Draft remit/appraisal objective

To appraise the clinical and cost effectiveness of degarelix within its licensed indication for the treatment of advanced hormone-dependent prostate cancer.

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 involve 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 and Wales, there were over 36,000 people newly diagnosed with prostate cancer in 2009 and over 9600 deaths from prostate cancer in 2010.

NICE clinical guideline 58 'Prostate cancer: diagnosis and treatment' recommends that people with localised disease should be offered active surveillance, prostatectomy (surgical removal of the prostate) or high-dose radical radiotherapy. Long-term disease-free intervals are commonly associated with surgical or radiotherapeutic treatment in more than 60% of people with localised disease but this is uncommon in people with advanced prostate cancer. Advanced prostate cancer is defined as locally advanced or metastatic disease (that is, the cancer spreads to other parts of the body). Around 55–65% of people with prostate cancer develop metastatic disease.

NICE clinical guideline 58 recommends hormonal therapy for people with locally advanced prostate cancer who are receiving radical radiotherapy. Treatment with gonadotrophin-releasing hormone (GnRH) agonist therapy is recommended before and during radical radiotherapy. Hormonal therapy is additionally recommended after radical radiotherapy for those with a Gleason score of at least 8 (which indicates a poorer prognosis).

NICE clinical guideline 58 also recommends hormonal therapy for people with prostate cancer who experience a biochemical relapse after radical treatment if they have symptomatic local disease progression, metastases or a prostate-specific antigen doubling time of less than 3 months. Standard hormonal treatments for metastatic disease are bilateral orchidectomy (surgical removal of the testes) or use of a GnRH agonist such as goserelin, leuprorelin or triptorelin.

During the first weeks of GnRH agonist therapy, an initial and temporary rise in serum testosterone (flare-up) can cause unwanted effects, which may in

clinical practice be managed using anti-androgens. However, other strategies for immediately ablating testosterone levels, such as bilateral orchidectomy, should be considered in patients with impending spinal cord compression. Except in this patient group, the clinical impact of the flare-up is unknown.

The technology

Degarelix (Firmagon, Ferring Pharmaceuticals) is a selective gonadotrophin releasing hormone (GnRH) antagonist that reduces the release of gonadotrophins by the pituitary, which in turn reduces the secretion of testosterone by the testes. Because they do not produce a rise in hormone levels at the start of treatment, GnRH antagonists do not initially induce testosterone surge or tumour stimulation, or have the potential for symptomatic flare. Degarelix is administered as a subcutaneous injection.

Degarelix has a UK marketing authorisation for the treatment of adult male patients with advanced hormone-dependent prostate cancer (that is, where the cancer has spread beyond the prostate).

Intervention	Degarelix
Population	Adult male patients with advanced hormone-dependent prostate cancer
Comparators	• Gonadotrophin-releasing hormone agonists
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rate • testosterone response • prostate-specific antigen (PSA) response • 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	Guidance will only be issued in accordance with the marketing authorisation.
Related NICE recommendations	Related Guidelines: Cancer Service Guidance Urological Cancer, September 2002, Improving outcomes in urogenital cancers'. Anticipated review date TBC. Clinical Guideline No. 58, February 2008, 'Prostate cancer: diagnosis and treatment'. Currently under review (publication expected November 2013). Related Pathway: NICE Pathway, 'Prostate cancer' [http://pathways.nice.org.uk/pathways/prostate-cancer; accessed 15 August 2012].

Questions for consultation

Have the most appropriate comparators for degarelix for the treatment of advanced hormone-dependent prostate cancer been included in the scope? Are the comparators listed routinely used in clinical practice?

- Which GnRH agonists are most commonly used in clinical practice and should these be individually specified as comparators?
- Should anti-androgens (for example, bicalutamide) be included as comparators?
- Should bilateral orchidectomy be included as a comparator?

Are there any subgroups of people in whom the technology is expected to be more clinically effective and cost effective or other groups that should be examined separately?

- Are there any groups of people who would derive a particular clinical benefit from avoiding an initial flare of testosterone levels, and who should be examined separately (for example, those with impending spinal cord compression)?

NICE is committed to promoting equality of opportunity, eliminating unlawful discrimination and fostering good relations between people with particular protected characteristics and others. Please let us know if you think that the proposed remit and scope may need changing in order to meet these aims. In particular, please tell us if the proposed remit and scope:

- could exclude from full consideration any people protected by the equality legislation who fall within the patient population for which degarelix is licensed;

- could lead to recommendations that have a different impact on people protected by the equality legislation than on the wider population, e.g. by making it more difficult in practice for a specific group to access the technology;

- could have any adverse impact on people with a particular disability or disabilities.

Please tell us what evidence should be obtained to enable the Committee to identify and consider such impacts.

Do you consider the technology to be innovative in its potential to make a significant and substantial impact on health-related benefits and how it might improve the way that current need is met (is this a 'step-change' in the management of the condition)?

Do you consider that the use of the technology can result in any potential significant and substantial health-related benefits that are unlikely to be included in the QALY calculation?

Please identify the nature of the data which you understand to be available to enable the Appraisal Committee to take account of these benefits

NICE intends to appraise this technology through its Single Technology Appraisal (STA) Process. We welcome comments on the appropriateness of appraising this topic through this process. (Information on the Institute's Technology Appraisal processes is available at http://www.nice.org.uk/aboutnice/howwework/devnicetech/technologyappraisalprocessguides/technology_appraisal_process_guides.jsp)