

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Proposed Health Technology Appraisal

Lenalidomide for the treatment of multiple myeloma in people who have received at least one prior therapy with bortezomib (partial review of TA171)**Final scope****Remit/appraisal objective**

To appraise the clinical and cost effectiveness of lenalidomide within its licensed indication for treating multiple myeloma previously treated with bortezomib^{1 2}.

Background

Multiple myeloma is a form of cancer that arises from plasma cells (a type of white blood cell) in the bone marrow. Myeloma cells produce large quantities of an abnormal antibody, known as paraprotein. Unlike normal antibodies, paraprotein has no useful function and lacks the capacity to fight infection. Myeloma cells suppress the development of normal blood cells that are responsible for fighting infection (white blood cells), carrying oxygen around the body (red blood cells) and blood clotting (platelets). The term multiple myeloma refers to the presence of more than one site of affected bone at the time of diagnosis. People with multiple myeloma can experience bone pain, bone fractures, tiredness (because of anaemia), infections, hypercalcaemia (too much calcium in the blood) and kidney problems.

In 2009, 4270 people were diagnosed with multiple myeloma in England and Wales. The condition is most frequently diagnosed in older people, with 71% of people diagnosed aged 65 years and over. Multiple myeloma is more common in men than in women and the incidence is also reported to be higher in people of African and Caribbean family origin. The 5-year survival rate for adults with multiple myeloma in England is estimated to be 37.1%.

Multiple myeloma is an incurable disease. The main aims of therapy are to prolong survival and maintain a good quality of life by controlling the disease and relieving symptoms. For people with multiple myeloma who are not considered suitable for stem-cell transplantation, NICE TA228 recommends as a first line treatment option thalidomide given with alkylating agents (such as melphalan or cyclophosphamide) and corticosteroids (such as prednisolone or dexamethasone) or, if thalidomide is contraindicated, bortezomib given with alkylating agents and corticosteroids. TA129 recommends bortezomib monotherapy as a second line treatment option for

¹ This is a part-review of TA171 (the rest of the appraisal will be placed on the static list).

² The remit for TA171 was: 'To appraise the clinical and cost effectiveness of lenalidomide in combination with dexamethasone for the treatment of multiple myeloma in people who have received at least one prior therapy'.

the treatment of progressive multiple myeloma in people who are at first relapse having received one prior therapy and who have undergone, or are unsuitable for, bone marrow transplantation (if the response to bortezomib is measured using serum M protein after a maximum of four cycles of treatment, and treatment is continued only in people who have a complete or partial response). TA171 recommends lenalidomide in combination with dexamethasone as a third line treatment option for the treatment of multiple myeloma only in people who have received two or more prior therapies.

First-line treatment of multiple myeloma with bortezomib was not an option during the development of TA171. Therefore, recommendations on the treatment of multiple myeloma with lenalidomide in people for whom thalidomide is contraindicated and who have received first-line treatment with bortezomib are being developed in the current part-review.

The technology

Lenalidomide (Revlimid, Celgene) is a structural analogue of thalidomide. It has anti-neoplastic, anti-angiogenic, pro-erythropoietic, anti-inflammatory and immunomodulatory properties. Lenalidomide is administered orally.

Lenalidomide in combination with dexamethasone has a UK marketing authorisation for the treatment of multiple myeloma in adults who have received at least one prior therapy.

Intervention(s)	Lenalidomide in combination with dexamethasone.
Population(s)	Adults with multiple myeloma for whom thalidomide is contraindicated and whose disease has progressed after at least 1 prior treatment with bortezomib.
Comparators	<ul style="list-style-type: none"> • Bortezomib monotherapy and bortezomib in combination with high dose dexamethasone • Chemotherapy including regimens based on mephalan, vincristine, cyclophosphamide and doxorubicin • Bendamustine
Outcomes	<p>The outcome measures to be considered include:</p> <ul style="list-style-type: none"> • progression-free survival • overall survival • response rates • time to next treatment • adverse effects of treatment • health-related quality of life.

<p>Economic analysis</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 should be taken into account.</p>
<p>Other considerations</p>	<p>Guidance will only be issued in accordance with the marketing authorisation.</p>

<p>Related NICE recommendations and NICE pathways</p>	<p>Related Technology Appraisals:</p> <p>Technology Appraisal No. 129, October 2007, 'Bortezomib monotherapy for relapsed multiple myeloma'. Static list.</p> <p>Technology Appraisal No. 171, June 2009, 'Lenalidomide for the treatment of multiple myeloma in people who have received at least one prior therapy'. Static list.</p> <p>Technology Appraisal No. 228, July 2011, 'Bortezomib and thalidomide for the first-line treatment of multiple myeloma'. Review proposal date July 2014.</p> <p>Suspended Technology Appraisal 'Multiple myeloma - lenalidomide (maintenance, post autologous stem cell transplantation)'. Suspended Technology Appraisal, 'Vorinostat in combination with bortezomib for the treatment of multiple myeloma in people who have received at least one prior therapy'. Suspended Technology Appraisal, 'Lenalidomide for the treatment of newly diagnosed multiple myeloma'</p> <p>Related Guidelines:</p> <p>Clinical Guideline in Preparation, 'Multiple myeloma: diagnosis and management of multiple myeloma'. Earliest anticipated date of publication January 2016.</p> <p>Cancer Service Guidance, October 2003, 'Improving Outcomes in Haematological Cancer'.</p>
<p>Related NHS England policy</p>	<p>National service framework: 'Improving outcomes: a strategy for cancer', Jan 2011.</p> <p>https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/135516/dh_123394.pdf.pdf</p>