NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Single Health Technology Appraisal

Masitinib for treating unresectable or metastatic gastrointestinal stromal tumours after treatment with imatinib

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of masitinib within its licensed indication for the treatment of unresectable or metastatic gastrointestinal stromal tumours after progression with imatinib.

Background

Gastrointestinal stromal tumours (GISTs) are rare connective tissue tumours. Although GISTs can occur along the length of the GI tract, the majority arise in the stomach (60–70%) or small intestine (25–35%). GISTs are associated with the overexpression of several tyrosine kinase growth receptors and the ligands that bind to them. Around 75–80% of GISTs have activating mutations in c-Kit (CD117), a tyrosine kinase receptor, and 5–10% have activating mutations in platelet-derived growth factor receptor-alpha (PDGFR-alpha). These factors are thought to be important in driving tumour development.

The annual incidence of GISTs is estimated to be approximately 900 new diagnoses per year in the UK and approximately half of these are likely to be unresectable or metastatic. Although GISTs can occur at any age, the mean age at presentation is between 50 and 70 years and it is more common in men than women.

'Imatinib for the treatment of unresectable and/or metastatic gastro-intestinal stromal tumours' (NICE technology appraisal guidance 86) recommends imatinib at a dose of 400 mg/day as the first-line treatment for people with c-Kit-positive unresectable and/or metastatic GISTs. Following failure of imatinib treatment, and in the absence of further treatment, survival is usually less than 1 year. NICE technology appraisal guidance 209 does not recommend imatinib at 600 or 800 mg/day for people with unresectable and/or metastatic GISTs whose disease has progressed after treatment with 400 mg/day. 'Sunitinib for the treatment of gastrointestinal stromal tumours' (NICE technology appraisal guidance 179) recommends sunitinib (with a patient access scheme) as a second-line treatment option after failure of imatinib because of resistance or intolerance.

The technology

Masitinib (Masican, AB Science) is a tyrosine kinase inhibitor that inhibits c-Kit, platelet-derived growth factor receptor, fibroblast growth factor receptor and kinases that are involved in cell proliferation and resistance to chemotherapy. Masitinib is administered orally.

Masitinib does not have a UK marketing authorisation for the treatment of GISTs. It has been compared with sunitinib in clinical trials in adults with imatinib-resistant c-Kit-positive GISTs that are metastatic, or locally advanced and non-operable.

Intervention(s)	Masitinib
Population(s)	Adults with unresectable or metastatic gastrointestinal stromal tumours whose condition has progressed following treatment with imatinib
Comparators	• Sunitinib
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • time to treatment failure • 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 schemes for the technology or its comparators should be taken into account.
Other considerations	Guidance will only be issued in accordance with the marketing authorisation. If evidence allows, subgroups according to the tumour genetic mutational status will be considered to identify which patients are likely to experience a greater benefit from treatment.

Related NICE recommendations	Related Technology Appraisals: Technology Appraisal No. 209, November 2010, 'Imatinib for the treatment of unresectable and/or metastatic gastrointestinal stromal tumours. Part review of NICE technology appraisal guidance 86' Guidance being considered for review Technology Appraisal No. 179, September 2009, 'Sunitinib for the treatment of gastrointestinal stromal tumours' Guidance on static list Technology Appraisal No. 86, October 2004, 'Imatinib for the treatment of unresectable and/or metastatic gastro-intestinal stromal tumours' This guidance has been partially updated by 'Imatinib for the treatment of unresectable and/or metastatic gastrointestinal stromal tumours' (NICE technology appraisal guidance 209) Related Cancer Service Guidance: Cancer Service Guidance, March 2006 'Improving outcomes for people with sarcoma' Cancer Service Guidance, March 2004 'Improving supportive and palliative care for adults with cancer' Related Quality Standards: Quality Standard 'End of life care for adults'