NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Single Technology Appraisal

Cabozantinib for treating advanced hepatocellular carcinoma after prior therapy

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of cabozantinib within its marketing authorisation for treating advanced hepatocellular carcinoma after prior therapy.

Background

Hepatocellular carcinoma (HCC) is the most common form of liver cancer in England, accounting for 55% of primary liver cancer diagnoses in men and 28% of diagnoses in women[1]. There were 4,673 people diagnosed with liver cancer in England in 2015[3]. HCC is commonly associated with cirrhosis (scarring of the liver), which can be caused by excessive alcohol intake, viral infections such as hepatitis B or C, or other conditions that result in chronic inflammation of the liver[2]. The risk of developing HCC increases with age, with the average age at diagnosis being 66 years[2].

Treatment for HCC depends on the location and stage of the cancer, and how well the liver function is preserved. Early stage hepatocellular carcinoma may be treated with potentially curative surgery (hepatic resection), or percutaneous radiofrequency/thermal ablation in patients with well-preserved liver function, or liver transplantation for those with impaired liver function.

However, treatment is palliative rather than curative for people with more advanced disease. Treatment options include interventional procedures such as transarterial chemoembolisation (using doxorubicin or cisplatin) or selective internal radiation therapy, and external beam radiotherapy. People for whom these treatments are not suitable, or those with metastatic disease, are treated with sorafenib (a multi-kinase inhibitor). Some people with HCC are treated with best supportive care. NICE Guidance TA474 (Cancer Drugs Fund reconsideration of TA189) recommends sorafenib as an option for treating advanced HCC only for people with Child-Pugh grade A liver impairment.

The technology

Cabozantinib (Cabometyx, Ipsen) is a small molecule tyrosine kinase inhibitor. This inhibits multiple receptor tyrosine kinases implicated in tumour growth and angiogenesis, pathologic bone remodelling and metastatic progression of cancer. It is orally administered.

Cabozantinib does not currently have a marketing authorisation in the UK for treating patients with hepatocellular carcinoma. It has been studied in a randomised controlled trial in adults with advanced hepatocellular carcinoma who have progressed after sorafenib.

Intervention(s)	Cabozantinib
Population(s)	Adults with advanced hepatocellular carcinoma (HCC) after prior therapy.
Comparators	• Best supportive care
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rates • time to treatment discontinuation • 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. If the technology is likely to provide similar or greater health benefits at similar or lower cost than technologies recommended in published NICE technology appraisal guidance for the same indication, a cost-comparison may be carried out. 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 intervention or comparator technologies will be taken into account.
Other considerations	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:** Hepatocellular carcinoma (advanced and metastatic) - sorafenib (first line) (review of TA189) - CDF rapid reconsideration process (2017) NICE technology appraisal 474. Next review August 2020. Regorafenib for previously treated unresectable hepatocellular carcinoma (2018) NICE technology appraisal 514. Next review March 2021 **Appraisals in development (including suspended appraisals)** Lenvatinib for advanced, unresectable, untreated hepatocellular carcinoma. NICE technology appraisal guidance [ID1089] Publication expected October 2018 **Related NICE Pathways:** Liver cancers (2015) NICE pathway.
Related National Policy	**NHS England:** NHS England (May 2017) Manual for prescribed specialised services 2017/18, chapter 131 (page 308): Specialist services for complex liver, biliary and pancreatic diseases in adults. **Department of Health:** Department of Health (2011) Improving Outcomes: A Strategy for Cancer Department of Health (2016) NHS Outcomes Framework 2016-2017. Domains 1 and 2.

References

1. National Cancer Registration and Analysis Service (2010) Trends in incidences in primary liver cancer subtypes. Accessed May 2018
2. Patient (2015) Hepatocellular carcinoma. Accessed May 2018
3. Office for National Statistics (2015) Cancer registration statistics. Accessed May 2018.