NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

Single Technology Appraisal

Capecitabine for the treatment of advanced gastric cancer

Final scope

Remit/appraisal objective

To appraise the clinical and cost effectiveness of capecitabine, within its licensed indication, for the treatment of advanced gastric cancer.

Background

Gastric cancer is a malignant tumour arising from cells in the stomach. Around 95% of gastric cancer cases are adenocarcinomas, which start in gland cells in the stomach lining. Tumours are staged according to the extent of invasion and spread. The majority of people with gastric cancer have inoperable advanced disease (stage III or IV) by the time they are diagnosed. This is because they often do not experience symptoms in the earlier phases and symptoms of advanced gastric cancer, when they do occur, can be vague and include: indigestion; loss of appetite; weight loss; fluid in the abdomen; blood in the stool and anaemia. The median survival for patients with advanced inoperable disease is approximately 9 to 11 months. The main factors influencing survival are the depth of cancer invasion through the gastric wall and regional lymph node involvement.

In England and Wales, 6,706 cases of gastric cancer were diagnosed in 2006 and 4,574 deaths reported in 2007. Gastric cancer incidence is about twice as high in men as it is in women. Gastric cancer mortality rates are about twice as high in the most deprived groups compared to the least deprived groups. Possible risk factors associated with gastric cancer are helicobacter pylori infection, smoking, alcohol consumption and diet. Incidence of gastric cancer increases with age, but in those affected at an earlier age, the tumour is usually more aggressive and the prognosis is worse.

The aim of treatment in advanced gastric cancer is to prevent progression, extend survival and relieve symptoms with minimal adverse effects. Treatment usually consists of chemotherapy and/or radiotherapy. Chemotherapy regimens used in gastric cancer include fluorouracil in combination with one or more of the following: cisplatin, oxaliplatin, doxorubicin, epirubicin, mitomycin and docetaxel.

The technology

Capecitabine (Xeloda, Roche Products) is an oral pro-drug that is converted to fluorouracil in a sequential biotransformation by enzymes that are principally located in the liver and tumour tissue .This biotransformation leads to higher concentration of fluorouracil in tumour tissue than in normal tissues.

Capecitabine holds a UK marketing authorisation for the first-line treatment of advanced gastric cancer in combination with a platinum-based regimen.

Intervention(s)	Capecitabine in combination with platinum-based chemotherapy regimens
Population(s)	People with advanced inoperable gastric cancer
Standard comparators	Fluorouracil in combination with platinum-based chemotherapy regimens
Outcomes	The outcome measures to be considered include: • overall survival • progression-free survival • response rates • 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 Technology Appraisals: Technology Appraisal in Preparation: 'Trastuzumab for the treatment of HER2 positive advanced gastric cancer'. Earliest anticipated date of publication November 2010.