

## NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

## Health Technology Appraisal

## Pemigatinib for treating relapsed or refractory advanced cholangiocarcinoma

## Draft scope

**Draft remit/appraisal objective**

To appraise the clinical and cost effectiveness of pemigatinib within its marketing authorisation for treating relapsed or refractory advanced cholangiocarcinoma.

**Background**

Cholangiocarcinoma is cancer of the bile duct. It mainly affects people aged over 65. Most people already have advanced cholangiocarcinoma when they are diagnosed because early disease is often asymptomatic. When symptoms occur, they include jaundice, weight loss, pain, sickness and fever.

Cholangiocarcinoma can be classified into 2 main types, depending on which part of the bile duct the cancer starts in. Extrahepatic cholangiocarcinoma (around 80% of cases) starts outside the liver and intrahepatic cholangiocarcinoma (around 20% of cases) starts inside the liver. Around 1,900 people each year in the UK are diagnosed with intrahepatic cholangiocarcinoma, and around 530 people are diagnosed with extrahepatic cholangiocarcinoma<sup>1</sup>. Alterations of fibroblast growth factor receptors (FGFRs) may be present in intrahepatic cholangiocarcinoma. These receptors play a role in the growth and spread of the cancer cells. Of people diagnosed with cholangiocarcinoma in England in 2012, 28.5% of men and 24.6% of women survived for 1 year or more after diagnosis. Of people diagnosed in England in 2008, 6.6% of men and 4.4% of women survived for 5 years or more<sup>2</sup>.

Surgery is currently the only curative treatment for cholangiocarcinoma. When surgery is not an option, people may receive chemotherapy, radiotherapy, radioembolisation or stent insertion. The most commonly used first chemotherapy regimen for cholangiocarcinoma is gemcitabine and cisplatin. Other chemotherapy treatments that may be used are capecitabine, fluorouracil and oxaliplatin. For disease with a worse performance status (performance status of 2), gemcitabine monotherapy may be used. There is no established second chemotherapy regimen although fluoropyrimidine-based therapy is sometimes used<sup>3</sup>. Radiotherapy and radioembolisation may also be considered after first chemotherapy<sup>3</sup>.

**The technology**

Pemigatinib (Pemazyre, Incyte) is a protein kinase inhibitor. It blocks protein kinases that are part of fibroblast growth factor receptors (FGFRs). Blocking FGFRs is expected to reduce the growth and spread of the cancer. It is administered orally.

Pemigatinib does not currently have a marketing authorisation in the UK for treating relapsed or refractory advanced cholangiocarcinoma. It has been studied in clinical trials in people with advanced or surgically unresectable cholangiocarcinoma whose disease has progressed after at least 1 prior systemic therapy.

<b>Intervention(s)</b>	Pemigatinib
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<b>Population(s)</b>	People with advanced cholangiocarcinoma with FGFR2 fusion or rearrangement that is relapsed or refractory after at least 1 prior systemic therapy.
<b>Comparators</b>	<ul style="list-style-type: none"> <li>• Chemotherapy</li> <li>• Radiotherapy</li> <li>• Radioembolisation</li> <li>• Best supportive care (including stent insertion)</li> </ul>
<b>Outcomes</b>	<p>The outcome measures to be considered include:</p> <ul style="list-style-type: none"> <li>• overall survival</li> <li>• progression-free survival</li> <li>• response rates</li> <li>• adverse effects of treatment</li> <li>• health-related quality of life.</li> </ul>
<b>Economic analysis</b>	<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 use of pemigatinib is conditional on the presence of FGF/FGFR gene alteration. The economic modelling should include the costs associated with diagnostic testing for the FGF/FGFR gene alteration in people with relapsed or refractory advanced cholangiocarcinoma who would not otherwise have been tested. A sensitivity analysis should be provided without the cost of the diagnostic test. <u><a href="#">See section 5.9 of the Guide to the Methods of Technology Appraisals.</a></u></p>
<b>Other considerations</b>	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.
<b>Related NICE recommendations and NICE Pathways</b>	<p><b>Related Interventional Procedures:</b></p> <p><a href="#">Selective internal radiation therapy for unresectable primary intrahepatic cholangiocarcinoma</a> (2018) Interventional procedures guidance IPG630</p> <p><a href="#">Photodynamic therapy for bile duct cancer</a> (2005)</p>

	<p>Interventional procedures guidance IPG134</p> <p><a href="#">Endoscopic bipolar radiofrequency ablation for treating biliary obstruction caused by cholangiocarcinoma or pancreatic adenocarcinoma</a> Interventional procedures guidance In development. Expected publication date: TBC</p> <p><b>Related NICE Pathways:</b></p> <p><a href="#">Liver cancers</a> (2020) NICE Pathway</p>
<b>Related National Policy</b>	<p>The NHS Long Term Plan, 2019. <a href="#">NHS Long Term Plan</a></p> <p>Department of Health and Social Care, NHS Outcomes Framework 2016-2017: Domain 1.</p> <p><a href="https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017">https://www.gov.uk/government/publications/nhs-outcomes-framework-2016-to-2017</a></p>

### Questions for consultation

Have all relevant comparators for pemigatinib been included in the scope? Which treatments are considered to be established clinical practice in the NHS for relapsed or refractory advanced cholangiocarcinoma after at least 1 prior systemic therapy? How should best supportive care be defined?

Are the outcomes listed appropriate?

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

Where do you consider pemigatinib will fit into the existing NICE pathway, [Liver cancers](#)?

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 pemigatinib will be 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 pemigatinib 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 pemigatinib 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.

To help NICE prioritise topics for additional adoption support, do you consider that there will be any barriers to adoption of this technology into practice? If yes, please describe briefly.

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/article/pmg19/chapter/1-Introduction>).

### References

- 1 Cancer Research UK [What is bile duct cancer?](#) [accessed February 2020]
- 2 Public Health England [Age-standardised incidence rates, one- and five-year survival, all patients diagnosed with upper gastrointestinal cancers, England](#) [accessed March 2020]
- 3 Valle JW, Borbath I, Khan SA et al on behalf of the ESMO Guidelines Committee (2016) Biliary cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Annals of Oncology* 27(5): v28-v37