

Liver cancers overview

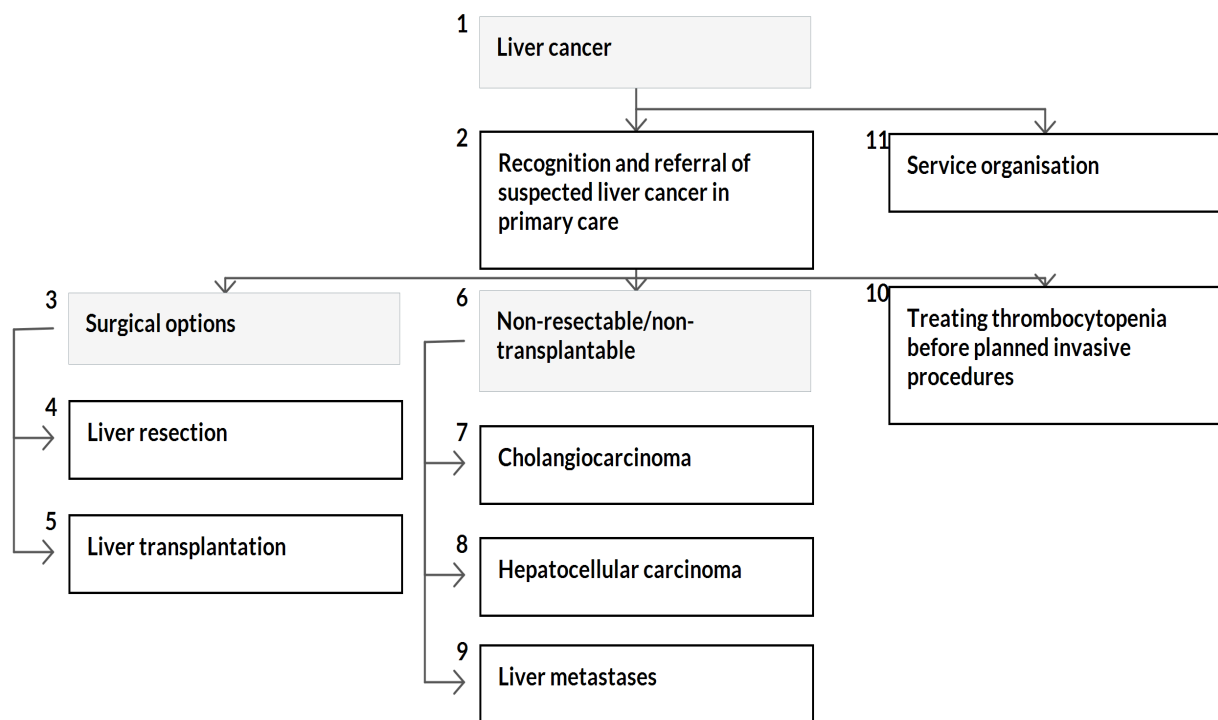
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/liver-cancers>

NICE Pathway last updated: 16 December 2020

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Liver cancer

No additional information

2 Recognition and referral of suspected liver cancer in primary care

See [the NICE Pathway on suspected cancer: recognition and referral](#) for information on:

- when to suspect liver cancer in primary care
- referral for further investigation or assessment.

3 Surgical options

No additional information

4 Liver resection

Interventional procedures

NICE has published guidance on the following procedures with **normal arrangements** for clinical governance, consent and audit:

- [radiofrequency-assisted liver resection](#)
- [laparoscopic liver resection](#).

NICE has published guidance on [ex-vivo hepatic resection and reimplantation for liver cancer](#) with **special arrangements** for clinical governance, consent and audit or research.

LiMAX system for assessing the functional capacity of the liver

NICE has published a [medtech innovation briefing on LiMAX system for assessing the functional capacity of the liver](#).

5 Liver transplantation

Everolimus

The following recommendations are from [NICE technology appraisal guidance on everolimus for preventing organ rejection in liver transplantation](#).

Everolimus is not recommended within its marketing authorisation for preventing organ rejection in people having a liver transplant.

People whose treatment with everolimus was started within the NHS before this guidance was published, should be able to continue everolimus until they and their NHS clinician consider it appropriate to stop.

NICE has written [information for the public on everolimus](#).

Living-donor liver transplantation

NICE has published [interventional procedures guidance on living-donor liver transplantation with normal arrangements](#) for clinical governance, consent and audit.

NICE has published [interventional procedures guidance on ex-situ machine perfusion for extracorporeal preservation of livers for transplantation with special arrangements](#) for clinical governance, consent, and audit or research.

LiMAx system for assessing the functional capacity of the liver

NICE has published a [medtech innovation briefing on LiMAx system for assessing the functional capacity of the liver](#).

6 Non-resectable/non-transplantable

No additional information

7 Cholangiocarcinoma

Interventional procedures

NICE has published guidance on [photodynamic therapy for bile duct cancer](#) with **special arrangements** for clinical governance, consent and audit or research.

NICE has published guidance that the following procedures should only be used in the context of **research**:

- [irreversible electroporation for primary liver cancer](#)
- [selective internal radiation therapy for unresectable primary intrahepatic cholangiocarcinoma](#)
- [endoscopic bipolar radiofrequency ablation for treating biliary obstruction caused by cancer](#)
- [chemosaturation via percutaneous hepatic artery perfusion and hepatic vein isolation for primary or metastatic liver cancer](#).

Genomic biomarker-based treatment for solid tumours

The point at which to use genomic biomarker-based therapy in solid tumour treatment pathways is uncertain. See [the NICE Pathway on genomic biomarker-based treatment for solid tumours](#) for guidance on specific treatments.

8 Hepatocellular carcinoma

Untreated

Atezolizumab with bevacizumab

The following recommendation is from [NICE technology appraisal guidance on atezolizumab with bevacizumab for treating advanced or unresectable hepatocellular carcinoma](#).

Atezolizumab plus bevacizumab is recommended as an option for treating advanced or unresectable HCC in adults who have not had previous systemic treatment, only if:

- they have Child-Pugh grade A liver impairment and an ECOG performance status of 0 or 1 and
- the company provides it according to the [commercial arrangement](#).

This recommendation is not intended to affect treatment with atezolizumab plus bevacizumab that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

See [why we made the recommendation on atezolizumab with bevacizumab](#).

NICE has written [information for the public on atezolizumab with bevacizumab](#).

Lenvatinib

The following recommendation is from [NICE technology appraisal guidance on lenvatinib for untreated advanced hepatocellular carcinoma](#).

Lenvatinib is recommended as an option for untreated, advanced, unresectable hepatocellular carcinoma in adults, only if:

- they have Child–Pugh grade A liver impairment and an ECOG performance status of 0 or 1 and
- the company provides it according to the [commercial arrangement](#).

This recommendation is not intended to affect treatment with lenvatinib that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

See [why we made the recommendation on lenvatinib](#).

NICE has written [information for the public on lenvatinib](#).

Sorafenib

The following recommendation is from [NICE technology appraisal guidance on sorafenib for treating advanced hepatocellular carcinoma](#).

Sorafenib is recommended as an option for treating advanced hepatocellular carcinoma only for people with Child-Pugh grade A liver impairment, only if the company provides sorafenib within the agreed commercial access arrangement.

This recommendation is not intended to affect treatment with sorafenib that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

NICE has written [information for the public on sorafenib](#).

Previously treated

Regorafenib

The following recommendations are from [NICE technology appraisal guidance on regorafenib for previously treated advanced hepatocellular carcinoma](#).

Regorafenib is recommended as an option for treating advanced unresectable hepatocellular carcinoma in adults who have had sorafenib, only if:

- they have Child–Pugh grade A liver impairment and an ECOG performance status of 0 or 1 and
- the company provides it according to the [commercial arrangement](#).

This recommendation is not intended to affect treatment with regorafenib that was started in the NHS before this guidance was published. People having treatment outside this recommendation may continue without change to the funding arrangements in place for them before this guidance was published, until they and their NHS clinician consider it appropriate to stop.

See [why we made the recommendations on regorafenib](#).

NICE has written [information for the public on regorafenib](#).

Ramucirumab

NICE is unable to make a recommendation about the use in the NHS of [ramucirumab for treating unresectable hepatocellular carcinoma in adults](#) who have had sorafenib, when disease has progressed or sorafenib is not tolerated, because Lilly did not provide an evidence submission. The company has confirmed that it does not intend to make a submission for the appraisal because the technology is unlikely to be a cost-effective use of NHS resources.

Cabozantinib

The [NICE technology appraisal of cabozantinib for previously treated advanced hepatocellular carcinoma](#) was terminated because no evidence submission was received from Ipsen Ltd for the technology. The company has confirmed that it does not intend to make a submission. Therefore NICE **was unable to make a recommendation** about the use of this technology in the NHS.

Interventional procedures

NICE has published guidance on following procedures with **normal arrangements** for clinical governance, consent and audit:

- [selective internal radiation therapy for primary hepatocellular liver carcinoma](#)
- [microwave ablation of hepatocellular carcinoma](#)
- [radiofrequency ablation of hepatocellular carcinoma](#).

NICE has published guidance that the following procedures should only be used in the context of **research**:

- [irreversible electroporation for primary liver cancer](#)
- [chemosaturation via percutaneous hepatic artery perfusion and hepatic vein isolation for primary or metastatic liver cancer](#).

Medtech innovation briefings

NICE has published medtech innovation briefings on:

- [SIR-Spheres for treating inoperable hepatocellular carcinoma](#)
- [TheraSphere for treating operable and inoperable hepatocellular carcinoma](#).

Genomic biomarker-based treatment for solid tumours

The point at which to use genomic biomarker-based therapy in solid tumour treatment pathways is uncertain. See [the NICE Pathway on genomic biomarker-based treatment for solid tumours](#) for guidance on specific treatments.

9 Liver metastases

Interventional procedures

NICE has published guidance on the following procedures with **normal or standard arrangements** for clinical governance, consent and audit:

- [microwave ablation for treating liver metastases](#)
- [radiofrequency ablation for colorectal liver metastases](#).

NICE has published guidance on the following procedures with **special arrangements** for clinical governance, consent and audit or research:

- [selective internal radiation therapy for unresectable colorectal metastases in the liver](#)
- [cryotherapy for the treatment of liver metastases](#).

NICE has published guidance that the following procedures should only be used in the context of **research**:

- [chemosaturation via percutaneous hepatic artery perfusion and hepatic vein isolation for primary or metastatic liver cancer](#)
- [irreversible electroporation for treating liver metastases](#).

10 Treating thrombocytopenia before planned invasive procedures

Avatrombopag

The following recommendation is from [NICE technology appraisal guidance on avatrombopag for treating thrombocytopenia in people with chronic liver disease needing a planned invasive procedure](#).

Avatrombopag is recommended, within its marketing authorisation, as an option for treating severe thrombocytopenia (that is, a platelet count of below 50,000 platelets per microlitre of blood) in adults with chronic liver disease having a planned invasive procedure.

See [why we made the recommendation on avatrombopag](#).

NICE has written [information for the public on avatrombopag](#).

Lusutrombopag

The following recommendation is from [NICE technology appraisal guidance on lusutrombopag for treating thrombocytopenia in people with chronic liver disease needing a planned invasive procedure](#).

Lusutrombopag is recommended, within its marketing authorisation, as an option for treating severe thrombocytopenia (that is, a platelet count of below 50,000 platelets per microlitre of blood) in adults with chronic liver disease having planned invasive procedures.

See [why we made the recommendation on lusutrombopag](#).

NICE has written [information for the public on lusutrombopag](#).

11 Service organisation

NICE has published a [cancer service guideline on improving supportive and palliative care for adults with cancer](#).

See [NICE's recommendations on end of life care for people with life-limiting conditions and opioids for pain relief in palliative care](#).

Glossary

ECOG

Eastern Cooperative Oncology Group

HCC

hepatocellular carcinoma

Sources

[Atezolizumab with bevacizumab for treating advanced or unresectable hepatocellular carcinoma](#) (2020) NICE technology appraisal guidance 666

[Avatrombopag for treating thrombocytopenia in people with chronic liver disease needing a planned invasive procedure](#) (2020) NICE technology appraisal guidance 626

[Lusutrombopag for treating thrombocytopenia in people with chronic liver disease needing a planned invasive procedure](#) (2020) NICE technology appraisal guidance 617

[Ramucirumab for treating unresectable hepatocellular carcinoma after sorafenib \(terminated appraisal\)](#) (2019) NICE technology appraisal 609

[Cabozantinib for previously treated advanced hepatocellular carcinoma \(terminated appraisal\)](#) (2019) NICE technology appraisal 582

[Regorafenib for previously treated advanced hepatocellular carcinoma](#) (2019) NICE technology appraisal guidance 555

[Lenvatinib for untreated advanced hepatocellular carcinoma](#) (2018) NICE technology appraisal guidance 551

[Sorafenib for treating advanced hepatocellular carcinoma](#) (2017) NICE technology appraisal guidance 474

[Everolimus for preventing organ rejection in liver transplantation](#) (2015) NICE technology appraisal guidance 348

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to

have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.