

Surgery to remove liver cancer (with temporary removal of the liver)

NICE 'HealthTech guidance' advises the NHS on when and how new procedures can be used in clinical practice.

This leaflet is about when and how surgery to remove liver cancer (with temporary removal of the liver) can be used in the NHS to treat people with liver cancer. It explains guidance (advice) from NICE (the National Institute for Health and Care Excellence).

This HealthTech guidance makes recommendations on the safety of a procedure and how well it works. An interventional procedure is a test, treatment or surgery that involves a cut or puncture of the skin, or an endoscope to look inside the body, or energy sources such as X-rays, heat or ultrasound. The guidance does not cover whether or not the NHS should fund a procedure. Decisions about funding are taken by local NHS bodies (primary care trusts and hospital trusts) after considering how well the procedure works and whether it represents value for money for the NHS.

NICE has produced this guidance because the procedure is quite new. This means that there is not a lot of information yet about how well it works, how safe it is and which patients will benefit most from it.

This leaflet is written to help people who have been offered this procedure to decide whether to agree (consent) to it or not. It does not describe liver cancer or the procedure in detail – a member of your healthcare team should also give you full information and advice about these. The leaflet includes some questions you may want to ask your doctor to help you reach a decision. Some sources of further information and support are on page 6.

What has NICE said?

The current evidence on this procedure has raised concerns about how well the procedure works and how safe it is. If a doctor wants to use this procedure for liver cancer, they should make sure that extra steps are taken to explain the uncertainty about how well it works and how safe it is. They should explain the risks of death or other serious problems and the possible need for a liver transplant following the procedure. This should happen before the patient agrees (or doesn't agree) to the procedure. The patient should be given this leaflet and other written information as part of the discussion. There should also be special arrangements for monitoring what happens to the patient after the procedure. NICE has also said that this procedure should only be offered to patients whose liver cancer is life threatening, and for whom other treatments have either failed or are not suitable for the patient.

For details of all NICE guidance on liver cancer and its treatments, visit our website at www.nice.org.uk/Guidance/Topic



Surgery to remove liver cancer (with temporary removal of the liver)

This procedure may not be the only possible treatment for liver cancer. Your healthcare team should talk to you about whether it is suitable for you and about any other treatment options available.

The medical name for this procedure is ‘Ex-vivo hepatic resection and reimplantation for liver cancer’.

The procedure is not described in detail here – please talk to your specialist for a full description.

Liver cancer can either be described as ‘primary liver cancer’ if it starts in the liver or ‘secondary liver cancer’ if the cancer starts somewhere else in the body and spreads to the liver. This procedure can be used for both primary and secondary liver cancer. The treatments that may be offered depend on the type of cancer and how far it has spread.

Surgery is not always possible because of the size and location of the cancer, particularly when it is located near the veins that connect to the liver.

For some patients, it may be possible for the part of the liver affected by the cancer to be cut away and removed. In very advanced cases of cancer, the liver is completely removed from the patient’s body and then operated upon before the sections of the liver that are free from cancer are put back into the patient’s body.

What does this mean for me?

If your doctor has offered you this procedure for liver cancer, he or she should tell you that NICE has decided that there are concerns about how well this procedure works and how safe it is. This does not mean that the procedure should not be done, but that your doctor should fully explain what is involved in having the procedure and discuss the possible benefits and risks with you. They should explain the risks of death or other serious problems and the possible need for a liver transplant following the procedure. You should only be asked if you want to agree to this procedure after this discussion has taken place. You should be given written information, including this leaflet, and have the opportunity to discuss it with your doctor before making your decision.

NICE has also decided that more information is needed about this procedure. Your doctor may ask you if details of your procedure can be used to help collect more information about this procedure. Your doctor will give you more information about this.

You may want to ask the questions below

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the operation?
- What happens if something goes wrong?
- What may happen if I don't have the procedure?



You might decide to have this procedure, to have a different procedure, or not to have a procedure at all.

Summary of possible benefits and risks

Some of the benefits and risks seen in the studies considered by NICE are briefly described below. NICE looked at four small studies on this procedure.

How well does the procedure work?

In a study involving 22 patients with cancer, 13 patients out of the 22 survived the procedure and were discharged from hospital. In 2 patients the resected liver could not be reimplanted. Three years after the procedure, 10 of the surviving 13 patients had died because their liver cancer came back.

In another study of 8 patients with cancer, 4 patients had the procedure and 2 were alive 5 months after the procedure. In another study of 16 patients, 2 patients had this procedure. One of the patients was alive and disease free nearly 6 years after the procedure and the other patient had died by 4 months after the procedure (because of an unrelated bowel problem). A final study of 1 patient reported that the patient was disease free 1 year after the procedure.

The study of 22 patients also looked at how long the procedure took. It found that the procedure took approximately 14 hours and the liver was removed from the body for approximately 7 hours.

As well as looking at these studies, NICE also asked expert advisers for their views. These advisers are clinical specialists in this field of medicine. The advisers said that the aim of this procedure is survival.

Risks and possible problems

In the study involving 22 patients with cancer, 9 patients died before they could be discharged from hospital. Also in this study, 7 patients needed to have a liver transplant either immediately or in another procedure afterwards (the timings of the transplant procedures were not recorded in the study).

In the study of 8 patients, 2 patients died after the procedure.

As well as looking at these studies, NICE also asked expert advisers for their views. These advisers are clinical specialists in this field of medicine. The advisers said that possible problems include death, liver failure, bleeding and the need for a blood transfusion or a liver transplant from a donor.

More information about liver cancer

NHS Choices (www.nhs.uk) may be a good place to find out more. Your local patient advice and liaison service (usually known as PALS) may also be able to give you further information and support.

About NICE

NICE produces guidance (advice) for the NHS about preventing, diagnosing and treating different medical conditions. The guidance is written by independent experts including healthcare professionals and people representing patients and carers. They consider how well an interventional procedure works and how safe it is, and ask the opinions of expert advisers. This guidance applies to the whole of the NHS in England, Wales, Scotland and Northern Ireland. Staff working in the NHS are expected to follow this guidance.

To find out more about NICE, its work and how it reaches decisions, see www.nice.org.uk/aboutguidance

This leaflet is about 'ex-vivo hepatic resection and reimplantation for liver cancer'. This leaflet and the full guidance aimed at healthcare professionals are available at www.nice.org.uk/HTG190

You can order printed copies of this leaflet from NICE publications (phone 0845 003 7783 or email publications@nice.org.uk and quote reference N1853). The NICE website has a screen reader service called Browsealoud, which allows you to listen to our guidance. Click on the Browsealoud logo on the NICE website to use this service.

We encourage voluntary organisations, NHS organisations and clinicians to use text from this booklet in their own information about this procedure.

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