Patient Information

Patient information and consent to liver resection

Key messages for patients

- Please read your admission letter carefully. It is important to follow the instructions we give you about not eating or drinking or we may have to postpone or cancel your operation.

- Please read this information carefully, you and your health professional will sign it to document your consent.

- It is important that you bring the consent form with you when you are admitted for surgery. You will have an opportunity to ask any questions from the surgeon or anaesthetist when you are admitted. You may sign the consent form either before you come or when you are admitted.

- Please bring with you all of your medications and its packaging (including inhalers, injections, creams, eye drops, patches, insulin and herbal remedies), a current repeat prescription from your GP, any cards about your treatment and any information that you have been given relevant to your care in hospital, such as x rays or test results.

- Laxatives and painkillers may be required after your hospital stay; please ensure you have appropriate supplies at home.

- Take your medications as normal on the day of the procedure unless you have been specifically told not to take a drug or drugs before or on the day by a member of your medical team. If you have diabetes please ask for specific individual advice to be given on your medication at your pre-operative assessment appointment.

- Please call the hepatobiliary (HPB) specialist nurses on 01223 256147 if you have any questions or concerns about this procedure.

After the procedure we will file the consent form in your medical notes and you may take this information leaflet home with you.

Important things you need to know

Patient choice is an important part of your care. You have the right to change your mind at any time, even after you have given consent and the procedure has started (as long as it is safe and practical to do so). If you are having an anaesthetic you will have the opportunity to discuss this with the anaesthetist, unless the urgency of your treatment prevents this.

We will also only carry out the procedure on your consent form unless, in the opinion of the health professional responsible for your care, a further procedure is needed in order to save your life or prevent serious harm to your health. However, there may be procedures you do not wish us to carry out and these can be recorded on the consent form.
form. We are unable to guarantee that a particular person will perform the procedure. However the person undertaking the procedure will have the relevant experience.

All information we hold about you is stored according to the Data Protection Act 1998.

About liver resection
This is a complex and major operation to remove part of your liver. This procedure is carried out for patients who have a lump in the liver (often a cancer).

This is a complex and major operation to remove part of your liver and may include removing the gallbladder. In some patients, the bile duct will need to be connected to the intestine with a joint. This operation typically takes three to four hours to perform.

Intended benefits
This operation allows us to remove the lump in the liver so that the pathologists can look at the tissue under the microscope, for example to look for cancer cells.

When we have the pathology report, we can plan and offer you further treatment (if required).

This is the only curative operation for cancer in the liver. Depending on how advanced the tumour is at the time of surgery, you have up to a 40% chance of a cure following this operation.

Who will perform my procedure?
This procedure will be performed by a team of surgeons who have the appropriate experience.

Before your procedure
Most patients attend an outpatient clinic, when you will meet a senior member of the surgical staff who will explain all the options to you in detail. Most patients would also attend a pre-admission clinic, where you will meet a pre-assessment nursing staff. At this clinic, we will ask for details of your medical history and carry out any necessary clinical examinations and investigations. Please ask us any questions about the procedure, and feel free to discuss any concerns you might have at any time.

We will ask if you take any tablets or use any other types of medication either prescribed by a doctor or bought over the counter in a pharmacy. Please bring all your medications and any packaging (if available) with you. Please tell the ward staff about all of the medicines you use. If you wish to take your medication yourself (self-medicate), please ask your nurse. Pharmacists visit the wards regularly and can help with any medicine queries.
This procedure involves the use of anaesthesia. We explain about the different types of anaesthesia or sedation we may use at the end of this leaflet. You will see an anaesthetist before your procedure.

Most people who have this type of procedure will need to stay in hospital for a period of approximately 7 to 10 days following the operation, although this could be longer in more complex cases. Sometimes we can predict whether you will need to stay for longer than usual - your doctor will discuss this with you before you decide to have the procedure.

During surgery, you may lose blood. If you lose a considerable amount of blood your doctor may want to replace the loss with a blood transfusion as significant blood loss can cause you harm. The blood transfusion can involve giving you other blood components such as plasma and platelets which are necessary for blood clotting. Your doctor will only give you a transfusion of blood or blood components during surgery, or recommend for you to have a transfusion after surgery, if you need it.

Compared to other everyday risks the likelihood of getting a serious side effect from a transfusion of blood or blood component is very low. Your doctor can explain to you the benefits and risks from a blood transfusion. Your doctor can also give you information about whether there are suitable alternatives to blood transfusion for your treatment. There is a patient information leaflet for blood transfusion available for you to read.

**During the procedure**

The anaesthetist will place several lines (tubes) into blood vessels in your neck and arms, which allows us to give you fluids and monitor your blood pressure etc during the operation. In addition a fine anaesthetic tube might also be placed in your back to give painkillers after the operation (an epidural similar to that used during childbirth). A catheter will also be placed into your bladder to drain your urine. We will pass a tube through your nose to keep your stomach empty during and after the operation. To allow access to the liver for the operation, the surgeon will make a large incision (cut) in the upper part of your abdomen (tummy).

In some patients this procedure may be performed using a laparoscopic (key-hole) technique. The surgeon will discuss this with you if use of this technique was possible in your case. This operation is carried out by making three or four small incisions (key-holes) in your tummy instead of a single large cut. A miniature camera is passed into the abdomen through one of these small incisions. It allows an excellent view of the liver and surrounding organs. Through the other small incisions, we can pass special long instruments which are used to free up the part of the liver and allow it to be removed. This part of liver is then put into a bag and removed by extending one of the keyholes.

However, there is no guarantee that the operation can be completed by key-hole surgery. If there is any technical difficulty or risk with freeing up or removing the liver. **Liver resection, CF143, V7, January 2017**
then a traditional cut would be needed to remove it. The chance of having to convert to open surgery is approximately 10-20%.

**After the procedure**

Once your surgery is completed you will usually be transferred to the recovery ward where you will be looked after by specially trained nurses, under the direction of your anaesthetist. The nurses will monitor you closely until the effects of any general anaesthetic have adequately worn off and you are conscious. They will monitor your heart rate, blood pressure and oxygen levels too. You may be given oxygen via a facemask, fluids via your drip and appropriate pain relief until you are comfortable enough to return to your ward.

After certain major operations you may be transferred to the intensive care unit (ICU/ITU), high dependency unit (HDU), intermediate dependency area (IDA) or fast track/overnight intensive recovery (OIR). These are areas where you will be monitored much more closely because of the nature of your operation or because of certain pre-existing health problems that you may have. If your surgeon or anaesthetist believes you should go to one of these areas after your operation, they will tell you and explain to you what you should expect.

**If there is not a bed in the necessary unit on the day of your operation, your operation may be postponed as it is important that you have the correct level of care after major surgery.**

Sometimes, people feel sick after an operation and might actually vomit. You will have a tube placed in your stomach via the nose (nasogastric tube) in order to keep the stomach empty overnight. If you feel sick, please tell a nurse and you will be offered medicine to make you more comfortable.

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**Eating and drinking.** You will be allowed to drink the next day and gradually start eating provided you do not vomit. It is normal for the bowels not to work for a few days after this operation.

**Getting about after the procedure.** We will help you to become mobile as soon as possible after the procedure. This helps improve your recovery and reduces the risk of certain complications. We will encourage you to move, sit up and get out of bed, do some deep breathing exercises, cough and be generally active. If you have any mobility problems, we can arrange nursing or physiotherapy help.

**Leaving hospital.** The actual time that you stay in hospital will depend on how quickly you recover from your operation and the type of operation you have had. Usually, you will be able to go home 7 to 10 days after the operation.
Resuming normal activities including work. It will be some time before you regain your energy and fitness and most people will need at least three months off work after this operation.

Special measures after the procedure. We will give you more detailed information about any special measures you need to take after the procedure. We will also give you information about things to watch out for that might be early signs of problems (for example, infection).

Check-ups and results. Before you leave hospital, we will give you a date for clinic appointment for the results of your surgery. At this time, we can check your progress and discuss any further treatment that may be recommended.

Significant, unavoidable or frequently occurring risks of this procedure

Liver resection is a complex procedure and is associated with a 2 to 5% risk of dying as a result of the operation.

Following the operation, there is a small risk of bleeding, bile leak, fluid collection and infections. If any complication occurs, you might need to have further tests, procedures or another operation to correct the problem.

Very rarely, you might find that your remaining liver might not be sufficient to sustain its normal function and this would require a prolonged stay in an intensive care or high-dependency bed.

Following this operation, minor complications such as wound infections, adhesions and hernia can occasionally occur.

Like any other operation, complications such as infection, bleeding, chest infections, adhesions, hernia, deep vein thrombosis (DVT, pulmonary embolus (PE) and peripheral nerve injury due to prolonged immobilisation can occur.

Alternative procedures that are available

Alternative procedures available for the treatment of cancer in the liver include:

- chemotherapy/radiotherapy
- cryotherapy (freezing the tumour)
- radiofrequency ablation (heating the tumour)
- embolisation (blocking the blood vessel supplying the tumour).

If we discover that the lump is cancer, this surgical procedure is the only known curative option.
Occasionally at the time of the operation, we might find that the lump (or cancer) is more advanced than we thought. If this is the case, we might not carry out the procedure as originally planned, but only take a smaller sample of tissue (a biopsy). After this biopsy has been tested, we will discuss the options with you.

**Information and support**

You might be given some additional patient information before or after the procedure, for example, leaflets that explain what to do after the procedure and what problems to look out for. If you have any questions or anxieties, please feel free to ask a member of the surgical team. They would be pleased to answer any queries you might have including the more detailed technical aspects of this procedure.

If you have further questions please contact one of the HPB specialist nurses, on 01223 256147. Outside normal working hours, please contact ward C7 on 01223 217300 and ask to speak to the nurse in charge.

**Anaesthesia**

Anaesthesia means ‘loss of sensation’. There are three types of anaesthesia: general, regional and local. The type of anaesthesia chosen by your anaesthetist depends on the nature of your surgery as well as your health and fitness. Sometimes different types of anaesthesia are used together.

**Before your operation**

Before your operation you will meet an anaesthetist who will discuss with you the most appropriate type of anaesthetic for your operation, and pain relief after your surgery. To inform this decision, he/she will need to know about:

- your general health, including previous and current health problems
- whether you or anyone in your family has had problems with anaesthetics
- any medicines or drugs you use
- whether you smoke
- whether you have had any abnormal reactions to any drugs or have any other allergies
- your teeth, whether you wear dentures, or have caps or crowns.

Your anaesthetist may need to listen to your heart and lungs, ask you to open your mouth and move your neck and will review your test results.

**Pre-medication**

You may be prescribed a ‘premed’ prior to your operation. This is a drug or combination of drugs which may be used to make you sleepy and relaxed before surgery, provide pain relief, reduce the risk of you being sick, or have effects specific
for the procedure that you are going to have or for any medical conditions that you may have. Not all patients will be given a premed or will require one and the anaesthetist will often use drugs in the operating theatre to produce the same effects.

Moving to the operating room or theatre

You will usually change into a gown before your operation and we will take you to the operating suite. When you arrive in the theatre or anaesthetic room and before starting your anaesthesia, the medical team will perform a check of your name, personal details and confirm the operation you are expecting.

Once that is complete, monitoring devices may be attached to you, such as a blood pressure cuff, heart monitor (ECG) and a monitor to check your oxygen levels (a pulse oximeter). An intravenous line (drip) may be inserted. If a regional anaesthetic is going to be performed, this may be performed at this stage. If you are to have a general anaesthetic, you may be asked to breathe oxygen through a face mask.

General anaesthesia

During general anaesthesia you are put into a state of unconsciousness and you will be unaware of anything during the time of your operation. Your anaesthetist achieves this by giving you a combination of drugs.

While you are unconscious and unaware your anaesthetist remains with you at all times. He or she monitors your condition and administers the right amount of anaesthetic drugs to maintain you at the correct level of unconsciousness for the period of the surgery. Your anaesthetist will be monitoring such factors as heart rate, blood pressure, heart rhythm, body temperature and breathing. He or she will also constantly watch your need for fluid or blood replacement.

Regional anaesthesia

Regional anaesthesia includes epidurals, spinals, caudals or local anaesthetic blocks of the nerves to the limbs or other areas of the body. Local anaesthetic is injected near to nerves, numbing the relevant area and possibly making the affected part of the body difficult or impossible to move for a period of time. Regional anaesthesia may be performed as the sole anaesthetic for your operation, with or without sedation, or with a general anaesthetic. Regional anaesthesia may also be used to provide pain relief after your surgery for hours or even days. Your anaesthetist will discuss the procedure, benefits and risks with you and, if you are to have a general anaesthetic as well, whether the regional anaesthesia will be performed before you are given the general anaesthetic.

Local anaesthesia

In local anaesthesia the local anaesthetic drug is injected into the skin and tissues at the site of the operation. The area of numbness will be restricted and some sensation of pressure may be present, but there should be no pain. Local anaesthesia is used for
minor operations such as stitching a cut, but may also be injected around the surgical site to help with pain relief. Usually a local anaesthetic will be given by the doctor doing the operation.

**Sedation**

Sedation is the use of small amounts of anaesthetic or similar drugs to produce a ‘sleepy-like’ state. Sedation may be used as well as a local or regional anaesthetic. The anaesthesia prevents you from feeling pain, the sedation makes you drowsy. Sedation also makes you physically and mentally relaxed during an investigation or procedure which may be unpleasant or painful (such as an endoscopy) but where your co-operation is needed. You may remember a little about what happened but often you will remember nothing. Sedation may be used by other professionals as well as anaesthetists.

**What will I feel like afterwards?**

How you will feel will depend on the type of anaesthetic and operation you have had, how much pain relieving medicine you need and your general health. Most people will feel fine after their operation. Some people may feel dizzy, sick or have general aches and pains. Others may experience some blurred vision, drowsiness, a sore throat, headache or breathing difficulties.

You may have fewer of these effects after local or regional anaesthesia although when the effects of the anaesthesia wear off you may need pain relieving medicines.

**What are the risks of anaesthesia?**

In modern anaesthesia, serious problems are uncommon. Risks cannot be removed completely, but modern equipment, training and drugs have made it a much safer procedure in recent years. The risk to you as an individual will depend on whether you have any other illness, personal factors (such as smoking or being overweight) or surgery which is complicated, long or performed in an emergency.

**Very common (1 in 10 people) and common side effects (1 in 100 people)**

- Feeling sick and vomiting after surgery
- Sore throat
- Dizziness, blurred vision
- Headache
- Bladder problems
- Damage to lips or tongue (usually minor)
- Itching
- Aches, pains and backache
- Pain during injection of drugs
- Bruising and soreness
- Confusion or memory loss
Uncommon side effects and complications (1 in 1000 people)
Chest infection
Muscle pains
Slow breathing (depressed respiration)
Damage to teeth
An existing medical condition getting worse
Awareness (becoming conscious during your operation)

Rare (1 in 10,000 people) and very rare (1 in 100,000 people) complications
Damage to the eyes
Heart attack or stroke
Serious allergy to drugs
Nerve damage
Death
Equipment failure

Deaths caused by anaesthesia are very rare. There are probably about five deaths for every million anaesthetics in the UK. For more information about anaesthesia, please visit the Royal College of Anaesthetists’ website: www.rcoa.ac.uk
Information about important questions on the consent form

1 Creutzfeldt Jakob Disease (‘CJD’)
We must take special measures with hospital instruments if there is a possibility you have been at risk of CJD or variant CJD disease. We therefore ask all patients undergoing any surgical procedure if they have been told that they are at increased risk of either of these forms of CJD. This helps prevent the spread of CJD to the wider public. A positive answer will not stop your procedure taking place, but enables us to plan your operation to minimise any risk of transmission to other patients.

2 Photography, Audio or Visual Recordings
As a leading teaching hospital we take great pride in our research and staff training. We ask for your permission to use images and recordings for your diagnosis and treatment, they will form part of your medical record. We also ask for your permission to use these images for audit and in training medical and other healthcare staff and UK medical students; you do not have to agree and if you prefer not to, this will not affect the care and treatment we provide. We will ask for your separate written permission to use any images or recordings in publications or research.

3 Students in training
Training doctors and other health professionals is essential to the NHS. Your treatment may provide an important opportunity for such training, where necessary under the careful supervision of a registered professional. You may, however, prefer not to take part in the formal training of medical and other students without this affecting your care and treatment.

4 Use of Tissue
As a leading bio-medical research centre and teaching hospital, we may be able to use tissue not needed for your treatment or diagnosis to carry out research, for quality control or to train medical staff for the future. Any such research, or storage or disposal of tissue, will be carried out in accordance with ethical, legal and professional standards. In order to carry out such research we need your consent. Any research will only be carried out if it has received ethical approval from a Research Ethics Committee. You do not have to agree and if you prefer not to, this will not in any way affect the care and treatment we provide. The leaflet ‘Donating tissue or cells for research’ gives more detailed information. Please ask for a copy.

If you wish to withdraw your consent on the use of tissue (including blood) for research, please contact our Patient Advice and Liaison Service (PALS), on 01223 216756.
Privacy & dignity

Same sex bays and bathrooms are offered in all wards except critical care and theatre recovery areas where the use of high-tech equipment and/or specialist one to one care is required.

We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

If you would like this information in another language, large print or audio, please ask the department where you are being treated, to contact the patient information team:
patient.information@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.
Liver resection

A Patient's side  left / right  or  N/A

Consultant or other health professional responsible for your care

Name and job title: ...........................................................

☐ Any special needs of the patient (e.g. help with communication)? ...........................................................

Please use ‘Procedure completed’ stamp here on completion:

B Statement of health professional (details of treatment, risks and benefits)

1 I confirm I am a health professional with an appropriate knowledge of the proposed procedure, as specified in the hospital's consent policy. I have explained the procedure to the patient. In particular, I have explained:

a) the intended benefits of the procedure (please state) ...........................................................

To remove the lump in the liver ...........................................................

b) the possible risks involved. Addenbrooke's always ensures any risks are minimised. However all procedures carry some risk and I have set out below any significant, unavoidable or frequently occurring risks including those specific to the patient

Full details are set out in the information and include:

• Bleeding and infections
• bile leak
• fluid collection
• liver dysfunction
• chest infection
• Clots in legs (DVT: deep vein thrombosis)
• Clots in lungs (PE: pulmonary embolus)
• Peripheral nerve injury due to prolonged immobilisation

c) what the treatment or procedure is likely to involve, the benefits and risks of any available alternative treatments (including no treatment) and any particular concerns of this patient:
Consent Form

Liver resection

d) any extra procedures that might become necessary during the procedure such as:
☐ Blood transfusion ☐ Other procedure (please state)

2 The following information leaflet has been provided:
Liver resection

Version, reference and date: CF143 Version 7 January 2017
or ☐ I have offered the patient information about the procedure but this has been declined.

3 This procedure will involve:
☐ General and/or regional anaesthesia ☐ Local anaesthesia ☐ Sedation ☐ None

Signed (Health professional): ___________________________ Date: D D / M M / Y Y Y Y
Name (PRINT): __________________________________________ Time (24hr): H H : M M
Designation: __________________________________________ Contact/bleep no: __________

C Consent of patient / person with parental responsibility

I confirm that the risks, benefits and alternatives of this procedure have been discussed
with me and that my questions have been answered to my satisfaction and understanding.
Important: please read the patient information about this procedure and then put a
tick in the relevant boxes for the following questions:

1 Creutzfeldt Jakob disease (CJD)
Have you ever been notified that you are at risk of CJD or variant CJD
for public health purposes? If yes, please inform your health professional.
☐ Yes ☐ No

2 Photography, Audio or Visual Recording
a) I agree to the use of any of the above type of recordings for the purpose
of diagnosis and treatment.
☐ Yes ☐ No

b) I agree to unidentified versions of any of the above recordings being used
for audit and medical teaching in a healthcare setting.
☐ Yes ☐ No

3 Students in training
I agree to the involvement of medical and other students as part
of their formal training.
☐ Yes ☐ No
Use of Tissue

a) I agree that tissue (including blood) not needed for my own diagnosis or treatment can be used and stored for ethically approved research which may include ethically approved genetic research.

b) Where additional clinical information is needed for the purposes of ethically approved research, I agree that relevant sections of my medical record may be looked at by researchers or by relevant regulatory authorities. I give permission for these individuals to have access to my records.

I have listed below any procedures that I do not wish to be carried out without further discussion.


I have read and understood the Patient Information about this procedure and the above additional information. I agree to the procedure or treatment.

Signed (Patient): 
Name of patient (PRINT):

If signing for a child or young person; delete if not applicable.
I confirm I am a person with parental responsibility for the patient named on this form.
Signed: 
Relationship to patient:

If the patient is unable to sign but has indicated his/her consent, a witness should sign below.
Signed (Witness):
Name of witness (PRINT):
Address:
Consent Form

Liver resection

D Confirmation of consent

**Confirmation of consent** (where the treatment/procedure has been discussed in advance)
On behalf of the team treating the patient, I have confirmed with the patient that she/he has no further questions and wishes the treatment/procedure to go ahead.

Signed (Health professional): ........................................ Date: ............

Name (PRINT): ........................................ Job title: ........................................

Please initial to confirm all sections have been completed:

E Interpreter’s statement (if appropriate)

I have interpreted the information to the best of my ability, and in a way in which I believe the patient can understand:

Signed (Interpreter): ........................................ Date: ............

Name (PRINT): ........................................

Or, please note the language line reference ID number:

F Withdrawal of patient consent

☐ The patient has withdrawn consent (ask patient to sign and date here)

Signed (Patient): ........................................ Date: ............

Signed (Health professional): ........................................ Date: ............

Name (PRINT): ........................................ Job title: ........................................