Patient information and consent to percutaneous transhepatic cholangiography (PTC)

**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.**

- **Simple painkillers such as paracetamol and ibuprofen may be required after surgery.** Simple bowel medication such as senna and lactulose may be required after surgery. It is suggested that you discuss with your pharmacist and have a seven day supply of these medications at home to take as you need according to the instructions.

- **Take your medications as normal on the day of the procedure, however, you may be advised not to take any medicines that affect blood clotting such as aspirin, clopidogrel, prasugrel, ticagrelor, apixaban, dabigatran, edoxaban, rivaroxaban, warfarin and dalteparin.** These may need to be stopped up to five days before the procedure. **If you are taking these tablets,** you need to discuss with your doctor or the medical team who requested the procedure how long before the procedure to stop these medications depending on your medical conditions.

- **Please call one of our hepatobiliary (HPB) nurse practitioners on 01223 256147.**

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. 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 percutaneous transhepatic cholangiography (PTC)**

PTC is a procedure performed under x-ray guidance in order to assess the biliary tract (bile ducts), by injecting a contrast agent (x-ray visible dye) via a needle inserted through the liver. It is commonly followed by insertion of a drain or a stent (a plastic or metal tube to prop open the site of blockage) to help drainage of the bile ducts.

**Why do I need a PTC?**

The bile ducts are passages that transport bile in the liver and the gall bladder. Bile begins its journey in small ducts inside the liver. These small ducts eventually merge to form a single large bile duct which drains into the small bowel. When one or more bile ducts becomes narrow or has a blockage, bile may accumulate and cause problems such as jaundice (yellowness of the skin) or cholangitis (infection or inflammation of bile ducts). X-ray examination of these ducts is sometimes done by PTC.

PTC is used to:

- identify the site and the cause of the obstruction to bile flow (jaundice)
- provide treatment (such as insertion of stents or draining infected bile).

**Intended benefits**

The intended benefits of this procedure are to identify the site and the cause of the obstruction to bile flow (jaundice) and to provide treatment (such as insertion of stents or draining infected bile).

**Who will perform my procedure?**

This procedure will be performed by an interventional radiologist (specialist x-ray doctor).

**Before your procedure**

Your doctor has advised you to undergo this procedure usually to enable further investigation of your jaundice. You will be admitted to the hospital prior to this procedure.

On admission 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 local anaesthesia and/or sedation. We explain about the different types of anaesthesia or sedation we may use at the end of this leaflet.

You may be advised not to take any medicines that affect blood clotting such as aspirin, clopidogrel, prasugrel, ticagrelor, apixaban, dabigatran, edoxaban, rivaroxaban, warfarin and dalteparin. These may need to be stopped up to five days before the procedure. If you are taking these tablets, you need to discuss with your doctor or the medical team who requested the procedure how long before the procedure to stop these medications depending on your medical conditions.

You do not need to fast overnight. You can have light breakfast and drink as normal on the day of the procedure.

You will be given an antibiotic prior to the procedure to reduce the risk of infection. You may also be given intravenous fluids to prevent dehydration.

Will I need to stay in hospital?

You will be admitted into the hospital for this procedure. You will need to stay in bed for at least six hours after the test, lying on the side of the PTC to prevent bleeding. You may receive several more doses of antibiotics through your IV line to prevent infection. You may require more IV fluids to prevent dehydration. You will be monitored very closely.

During the procedure

Before your procedure, you will be given the necessary local anaesthetic and/or sedation.

PTC is performed by an interventional radiologist (specialist x-ray doctor) in a specialised area (angiography suite) in the x-ray department. Before your procedure, a radiologist will see you and describe the PTC procedure to you. He or she will also discuss biliary drainage or stenting in case you need to have this procedure done during the PTC. You will be asked to sign a consent form that gives your permission to have the procedures. If you have any allergies please inform the doctor.

A blood pressure cuff will be placed on your arm and a pulse oxymeter on your finger to monitor your heart rate, blood pressure and blood oxygen levels during the procedure.

An intravenous (IV) line will be placed in a vein on your arm. You may be given medications (analgesic, sedative or both) through your line to help you relax.
You will remain awake during the procedure and will be able to talk with those around you.

An ultrasound scan is usually performed to visualise the liver and the bile ducts. The skin on the right side of your abdomen will be cleaned, and the area will be draped with sterile sheets. Your skin will then be numbed with a local anaesthetic.

Once the area is numb, the radiologist will insert a thin needle through your skin and the liver into a bile duct. You may feel a bit of a twinge when the needle penetrates the liver followed by a pressure or fullness, or brief discomfort in the upper right side of the back. A small amount of dye will be injected and x-rays will be taken. The x-rays may be taken at different angles and you may be asked and helped to raise your arms to your head.

If the PTC results show a problem, such as a blockage in the bile duct, the radiologist may choose to insert a drain, a stent, or both depending on the clinical needs. A drain is almost always a temporary measure to drain the obstructed bile duct externally to a bag. A stent stays within the bile duct to drain the bile via the normal way. Sometimes the procedure may have to be done in stages so the radiologist may arrange for you to attend the angiography suite again.

PTC usually takes at least an hour to perform but you will be in the angiography suite for approximately three hours.

After the procedure

While you are in the recovery room, a nurse will check your pulse and blood pressure regularly. If you have been given sedation during the procedure you may be feeling sleepy. When you are well enough to be moved, you will be taken to a ward.

Sometimes, people feel sick after the procedure and might vomit. If you feel sick, please tell a nurse and you will be offered medicine to make you more comfortable. Once you are back on the ward, a nurse will frequently monitor your heart rate, blood pressure, temperature and breathing. If you have a drain with an external bag, the bile in the bag will also be checked for colour, amount, and presence of blood.

Please report to the nurse or doctor if you experience any of the following:

- excessive pain in the abdomen or shoulder
- fever, feeling hot,
- faint or dizziness
- nausea and vomiting
- sweating
- a change in stool colour to black or red
- itching, rash or any serious allergic reactions to contrast dye.
Eating and drinking. After the recovery, you may eat and drink as normal and gradually return to normal activities.

Getting about after the procedure. You will need to stay in bed for at least six hours after the procedure, lying on the side of the PTC to prevent bleeding. Typically, you will be able to get up after six hours. If we think you will have problems getting about, we will arrange for extra assistance, such as nursing help.

Leaving hospital. The number of days you stay in the hospital will depend upon your recovery from the procedure, the nature of the biliary obstruction and any need for further tests.

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

Check-ups and results: Before you leave hospital, we will check your progress and discuss with you any further treatment we recommend.

What do abnormal results mean?

The results may show that the ducts are enlarged, which may indicate the ducts are blocked. The blockage may be caused by a range of conditions such as infection, scarring, or stones. It could also indicate cancer in the bile ducts, liver, pancreas, or gallbladder. Your surgeon or physician will discuss any such findings with you. Depending on the results of the PTC, further tests or procedure may be planned and this will also be discussed with you.

Significant, unavoidable or frequently occurring risks of this procedure

There is a slight chance of excessive blood loss from this test. In some cases, blood leaks to the outside surface of the liver and causes a build-up of blood or clot.

Septicaemia (infection in the blood stream) and bile peritonitis (infection or inflammation of the membrane covering the walls of the abdomen) are serious complications of this procedure. You will be monitored closely to detect such complications at early stage.

You are likely to have some pain at the skin surface where the needle went in. This should only last for a day or two.
Some of the risks are linked to the dye that is used and there is a slight chance of an allergic reaction to this. The dye can also leak from the liver into the abdomen but this is almost always self resolving.

Complications such as deep vein thrombosis (DVT) and pulmonary embolus (PE) can occur.

Peripheral nerve injury due to prolonged immobilisation.

**Alternative procedures that are available**

A PTC is performed when other procedures have been attempted but are unsuccessful, for example, the endoscopic technique known as ERCP. There is no alternative to this procedure.

**Information and support**

We may give you 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 need any further information or clarification, please contact:
- one of our specialist HPB nurse practitioners on 01223 256147
- the hospital contact centre on 01223 245151 pager 154-225
- the HPB secretaries on 01223 256040 or 01223 257074
- the angiography suite on 01223 216337

Outside normal working hours, please contact ward C7 on 01223 217300 and ask to speak to the nurse in charge.

**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. 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 an 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.
This is known as ‘conscious sedation’, and may be used by other professionals as well as anaesthetists.

**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.

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We are 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 or audio, please contact Interpreting services on telephone: 01223 256998, or email: interpreting@addenbrookes.nhs.uk For Large Print information please contact the patient information team: patient.info@addenbrookes.nhs.uk.

**Document history**

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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.
Consent Form

Percutaneous transhepatic cholangiography

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)
      • identify the site and the cause of the obstruction to bile flow (jaundice)
      • provide treatment (such as insertion of stents or draining infected bile).

   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
      • slight chance of excessive blood loss from the test; in some cases blood leak to the surface of the liver causes a build up of blood or a clot
      • serious complications: septicemia (infection in blood stream) and bile peritonitis (infection or inflammation of the membrane covering the walls of the abdomen)
      • some pain at the skin surface at the point of the needle insertion
      • risks associated with the dye, possibility of allergic reaction, the dye can link from the liver to the abdomen but this is mostly self-resolving.
      • Clots in the legs (DVT: deep vein thrombosis); Clots in the 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:

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Consent Form

Percutaneous transhepatic cholangiography

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:

Percutaneous transhepatic cholangiography

Version, reference and date: CF405 version 5, January 2020

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.

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
4 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.  

☐ Yes  ☐ No

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.  

☐ Yes  ☐ No

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): ................................................................. Date: __________________________
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: .................................................................................. Date: __________________________
Relationship to patient:

If the patient is unable to sign but has indicated his/her consent, a witness should sign below.

Signed (Witness): ................................................................. Date: __________________________
Name of witness (PRINT): .................................................................
Address:.............................................................................................................
**Consent Form**

**Percutaneous transhepatic cholangiography**

**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: ...D.D./M.M./Y.Y.Y.Y.

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: ...D.D./M.M./Y.Y.Y.Y.

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: ...D.D./M.M./Y.Y.Y.Y.

Signed (Health professional): ........................................ Date: ...D.D./M.M./Y.Y.Y.Y.

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

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File in the procedures and consents section of the casenotes.