NHS
Lancashire Teaching Hospitals
NHS Foundation Trust

Information for patients and carers

Having an ERCP
(Endoscopic Retrograde Cholangio-Pancreatography)

What is an ERCP?

The clinical team looking after you have asked us to arrange an endoscopic procedure called an ERCP, which stands for Endoscopic Retrograde Cholangio-Pancreatography. The test uses a flexible camera called an endoscope. The endoscope is used to pass x-ray guided tools into the bile ducts against the normal flow of bile (retrograde) and to take x-ray pictures of the bile ducts and occasionally the pancreas (cholangio-pancreatography).

Before the procedure

A member of our endoscopy and booking teams will contact you to arrange a suitable date as directed by your referring team. If you are an inpatient a member of the endoscopy team will arrange this with the ward.

Sometimes procedures will have to wait for specific kit or procedural staff to become available, but our booking teams will stick as close to the target time for your procedure, as possible.

Some medications can make the procedure less safe. These can include blood thinning and anti-platelet medications (e.g. Apixaban, Warfarin or Clopidogrel). It can also include some herbal medications and food supplements. Sometimes, we may even need to change your medications temporarily or ask you to stop them to make the procedure safe. Please discuss all medications and remedies with your referring doctor.

Additionally, you will be asked to fast for the procedure. For most people this is from midnight the night before, but you may be advised to fast for a longer period of time in special circumstances.

Please inform us before you attend:

- If you are or think you may be pregnant
- If you are breast/chest feeding
- If you weigh over 28 stone/178kg
- If you require the use of a hoist
- If you require an interpreter – please inform us as soon as you receive your appointment letter, and we will arrange an official interpreter for you

On the day

When you arrive on the unit please report to reception. You may experience a wait before being called in by one of the nurses.
The nurse will take you into a private booking in room to explain the procedure to you and complete any relevant paperwork. You will have the opportunity to ask any questions.

The nurse will then insert a small cannula into a vein in your hand or arm. The sedation will be given through this when you are in the procedure room. You will then sit out in the reception waiting area again until the endoscopist is ready to carry out your procedure.
Before your procedure the endoscopist will ask you to sign a consent form that shows you understand the procedure and the risks involved with it.

If you are an inpatient, then somebody will go over your paperwork and a cannula will be inserted on the ward prior to you coming down for your procedure.

Can I bring a relative or friend with me?

You are welcome to bring someone with you to the hospital.

Please note that the Interventional Radiology Day Unit (IRDU) follows a single-sex policy for all patients attending day procedures.

To respect the privacy and dignity of all patients, we are unfortunately unable to allow relatives or companions to remain in the unit during your visit, however, they are welcome to wait in the general X-ray waiting area nearby.

Sedation

We offer all patients a combination of pain relief and a sedative for the procedure. Occasionally at patient request, we have delivered these procedures using only local anaesthetic, however, this is generally not advised. Some patients will require a general anaesthetic for complex procedures, or specific patient factors. This is not routine, and you will already be made aware of this by the endoscopy department if it has been planned for you.

Conscious sedation is safe and effective. You will retain a degree of awareness of the procedure; however, distress and discomfort will be controlled. You will be able to communicate with the team doing the procedure.

How soon will my results be available?

For most cases a general idea of the findings and results of any therapy will be discussed at the time and a formal report will be issued on the day. You can request a paper copy of your report, otherwise a digital copy will be made available. Following your procedure, the report will be immediately available to the requesting team and your GP. If you have had biopsy samples taken, then these may take some weeks before the results are available for your referring doctor.

What happens afterwards?

If there have been any issues or an unsuccessful procedure, the endoscopist will speak to you. Otherwise, the nursing team will discuss the findings and discharge you. You will receive a copy of the report for your records.

What can an ERCP do for me?

Most commonly we do this procedure to remove blockages in the bile duct system such as gallstones, to take biopsy samples, cytology brushings, drain the bile ducts before operations, or as part of cancer treatment, commonly using stents (metal or plastic tubes).

Usually, the team who referred you for this procedure will have explained to you why you are having it done. If this is unclear to you then you can discuss it further with them or with one of our staff members when they contact, you for the appointment. Alternatively, you will also be able to discuss this with the endoscopist at the time of your procedure.

What are the main risks of an ERCP?

Passing a camera deep into the body to deliver therapy always carries risks. Some are minor, such as discomfort during the procedure and some are potentially much more serious.
Your specific risk will be discussed with you by your referrer and the ERCP team, however, in general terms these are:

Pain and discomfort:

Camera tests are reported as uncomfortable and can be distressing. An ERCP is a complex procedure that takes approximately 30-40 minutes. We advise all patients to have sedation, and we administer pain relief as part of that sedation. Mild discomfort can be expected in the hours afterwards, but pain unmanageable by paracetamol is unusual and should be investigated further (see contact details below).

Holes in the bile duct or bowel (perforations):
These occur in 0.6% of procedures. Large holes that are not endoscopically repairable at the time they are made, and holes forming after the procedure from poor healing (delayed perforation) can be very serious. Small holes can heal themselves or be treated with temporary stents and tablet antibiotics as an outpatient. Most patients where perforation occurs fall between these extremes and are admitted to hospital for observation, antibiotics and often a CT scan.

Bleeding:
This occurs in less than 1% of procedures. This can either be because of the illness for which you need ERCP, worsened by it, or as a direct consequence of techniques required to release a stone or deliver therapy. Sometimes a second procedure or blood transfusions are required. If you have issues with blood transfusion, please discuss this with the endoscopy team.

Damage to teeth:
The camera passes into the body through the mouth. A mouthguard is placed in the mouth but can never be totally protective, particularly if you have dental issues.

Infection (cholangitis):
ERCP uses your mouth, oesophagus and stomach as a route to your bile ducts and is often used to treat severe infection. Because of this it is impossible to keep the procedure sterile. Pre-existing infection can

worsen, particularly if the procedure has been partially or wholly unsuccessful, or new infection can occur. If you are high risk antibiotic will be given during the procedure as a precaution.

Complications of sedation:
The sedative drugs we use are very effective and are safe. We use a combination of medications to limit high doses of any one single agent. You need a responsible adult to take you home (or escort you) and to look after you for 24 hours, as they can affect judgement for some time. Sometimes they are not effective, and the procedure cannot be completed. Sometimes they are more effective than anticipated (recognised by low oxygen levels in the blood, low exhaled carbon dioxide, or other features) and must be reversed with an antidote. If this is necessary, the procedure must be stopped. If this applies to you, alternatives will be arranged and discussed on the day.

Pancreatitis:
The pancreas is a major digestive gland that makes digestive enzymes. The pancreas gland shares the tubes and valves we use to access and treat the bile ducts. Back pressure on this duct (e.g. by pulling a stone past it to remove it) or damage from x-ray dye or x-ray guided tools entering the pancreas can harm it. If this happens the pancreas can start to digest itself and become inflamed (pancreatitis). This is a painful condition that can lead to long term damage to the pancreas, nutritional problems or diabetes. Severe pancreatitis can be a life-threatening illness, even in patients with no other health issues. Pancreatitis can be caused by many of the illnesses that require treatment by ERCP.

Indirect risks of the procedure:
To deliver therapy by ERCP, we must interrupt some other medical therapies, in particular blood thinners, antiplatelet agents and occasionally others to deliver therapy by ERCP. This balances procedural risk with the underlying risk of your other health problems.

Though we plan to minimise these risks the conditions these medicines are designed to prevent, such as heart attacks and strokes can occur after even brief interruption.

Radiation exposure:
During the procedure, x-ray screening is used to take imaging and guide tools. The exposure to radiation is kept to a minimum and provides minimal extra risk, this is outweighed by the benefits.

Death and serious long-term illness because of other complications:
For most patients who need an ERCP it is a straightforward and safe procedure done as a day case. For some patients it is an emergency lifesaving procedure (such as in severe gallstone infection). Because of this, the known complications and the wide range of people who need ERCP, from patients in critical care on organ support to outpatients with straightforward gallstones, we know that in our unit once or twice a year a patient will die shortly after an ERCP (1-2 in 400). A slightly larger number will require significant inpatient stays and secondary procedures or develop long term health issues because of complications.

What do we do to minimise risk?

Despite the known risks ERCP remains the surest and safest way to treat and investigate many bile duct illnesses.
None of these risks are entirely avoidable, and they can happen to anyone needing this procedure. We are a large volume centre with regularly audited results. All our ERCP endoscopists meet required recommended yearly procedural counts.
We aim to treat and manage serious complications at the time they occur. All ERCP staff in the room, and the hospital and supporting teams have specialist skills and training for managing even rare or unusual complications. If they are unable to deal with it in the

endoscopy room, this may be managed by surgical teams (but not necessarily with an operation) or by specialised x-ray doctors (interventional radiology). Very rarely regional specialist centres may need to be involved, or a transfer arranged.

We will offer you prophylactic medications to reduce risk of pancreatitis. This is delivered by suppository because of the fasting instructions. This is done shortly before the procedure begins. Sometimes the endoscopist will place a temporary plastic tube called a stent into the pancreas duct to ensure it drains properly if you are very high risk. These pancreatic stents are designed to fall out within a week or so but occasionally need to be removed at a second less invasive procedure called a gastroscopy. If you need this, you will have an x-ray arranged to check.

What are the alternatives?

- Doing nothing: if you have significant other illnesses and mild symptoms you may decide with the teams treating you not to proceed. They will discuss risks and benefits with you and develop a monitoring and symptoms control plan
- Purely x-ray guided tests (interventional radiology): these usually involve passing needles into the bile duct through the skin and then liver and have a different risk profile. Bleeding risk and risk of death are generally higher. Pancreatitis risks are lower
- Endoscopic ultrasound tests: these are very low risk for diagnostic testing; however, placement of stents and drainage of bile usually involves a deliberate controlled perforation is made between the small bowel or stomach and the bile ducts either within the liver, or outside it. These carry lower pancreatitis risk but have higher rates of bleeding or infection. Perforation rates are higher in some situations

- Surgical approaches are not currently available at Lancashire Teaching Hospitals. If you wish to discuss this option speak with your referring clinician about referral to an alternative provider

What happens if my procedure is unsuccessful?

80%-90% of all procedures are successful at the first attempt. If yours is not, there are several options. These will be discussed with you by the endoscopy team before you leave or your referring team if you are an inpatient:

- Repeat the ERCP in the same or a different hospital is often a good option. Information from an initial procedure can be analysed and advice sought or specialist support (such as a second endoscopist or specialised kit) arranged
- Referral to regional or national referral centres
- Use the other alternatives mentioned above
- Doing nothing: if you have significant other illnesses and mild symptoms you may decide with the teams treating you not to proceed. They will discuss risks and benefits with you and develop a monitoring and symptoms control plan

I have gone home and think I might be developing a complication:

If you have severe pain or vomiting and painful abdominal distension:
Do not eat anything. Dial 999 or attend a local emergency department.

If you are vomiting blood or passing black tarry stool or blood:
Do not eat anything. Drink clear water only. Dial 999 or attend a local emergency department.

If you have a very high fever, or low temperature and are feeling dizzy, faint or have uncontrolled shivering:
Do not eat anything. Drink clear water only. Dial 999 or attend a local emergency department.

For less urgent queries or advice please contact the endoscopy unit on the numbers provided below.
For minor pain try paracetamol.

Contact details

Should you require further advice or information please contact the Endoscopy Department on **01257 245652** (Chorley) or **01772 524404** (Preston) between the hours of 08:00 and 18:00.

Sources of further information

www.lancsteachinghospitals.nhs.uk
www.nhs.uk
www.accessable.co.uk
www.patient.co.uk
www.lancsteachinghospitals.nhs.uk/veteran-aware

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All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the

buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking this will include Nicotine Replacement Therapy to help manage your symptoms of withdrawal and the opportunity to speak to a nurse or advisor from the specialist Tobacco and Alcohol Care Team. If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone **08081962638.**

Please ask a member of staff if you would like help in understanding this information.
This information can be made available in large print, audio, Braille and in other languages.

Our patient information group review our leaflets regularly, if you feel you would like to feedback on this information or join our reading group please contact on email address:
patientexperienceandinvolvem@LTHTR.nhs.uk

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