Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

Having an ERCP

(Endoscopic retrograde cholangiopancreatography)

Patient Information

Author ID:	NP
Leaflet Number:	End 004
Version:	10
Name of Leaflet:	Having an ERCP
Last reviewed:	July 2023
Next Review Date:	July 2025

The WWL Way

This leaflet should help you to prepare for your ERCP procedure. Please read through this leaflet carefully as soon as possible and follow the instructions carefully. Do not leave it to just before your appointment as this may cause problems preparing for your test.

This leaflet has been written to provide information, explain the benefits and risks of the procedure and to allay any fears you may have. If you have any further queries, your doctor and the endoscopy staff will do their best to answer them for you.

How do I prepare for my appointment

Please contact the Gastroenterology Department immediately if you:

- are diabetic
- have suffered a heart attack, stroke or TIA within the last 3 months
- are on kidney dialysis
- are taking warfarin or Acenocoumoral (Sinthrome®)
- are taking Clopidogrel (Plavix®) or Dipyridamole (Persantin® or Asasantin®)
- are taking Ticagrelor (Briliique®) or Prasugrel (Efient®)
- are taking other anti-coagulants (Dabigatran or Pradaxa®, Apixaban or Eliquis®, Rivaroxaban or Xarelto®, Edoxaban or Lixiana®)
- are pregnant
- are unable to attend your appointment time

Endoscopy Unit at Royal Albert Edward Infirmary - 01942 822450

Having an ERCP

Your doctor has advised that you have an Endoscopic Retrograde Cholangio-Pancreatogram. This procedure is known as an ERCP for short.

What is an ERCP?

ERCP is a procedure which allows the doctor to examine and do an intervention to the tubes which drain the secretions from your liver and gallbladder (bile duct) and pancreas (pancreatic duct). These tubes normally drain into your small bowel (the duodenum). ERCP is usually carried out in the Radiology Department using special X-ray equipment.

Why do You need ERCP?

In all patients, ERCP is carried out with the intention to treat an underlying problem of your biliary and/or pancreatic ducts. Usually, this problem has been already identified on previous tests. Having ERCP is considered an excellent, less invasive alternative to surgical operations. In all cases, your consultant has recommended that ERCP is the most suitable option for you. There is always the option of not receiving this treatment, but that carries a risk of severe illness.

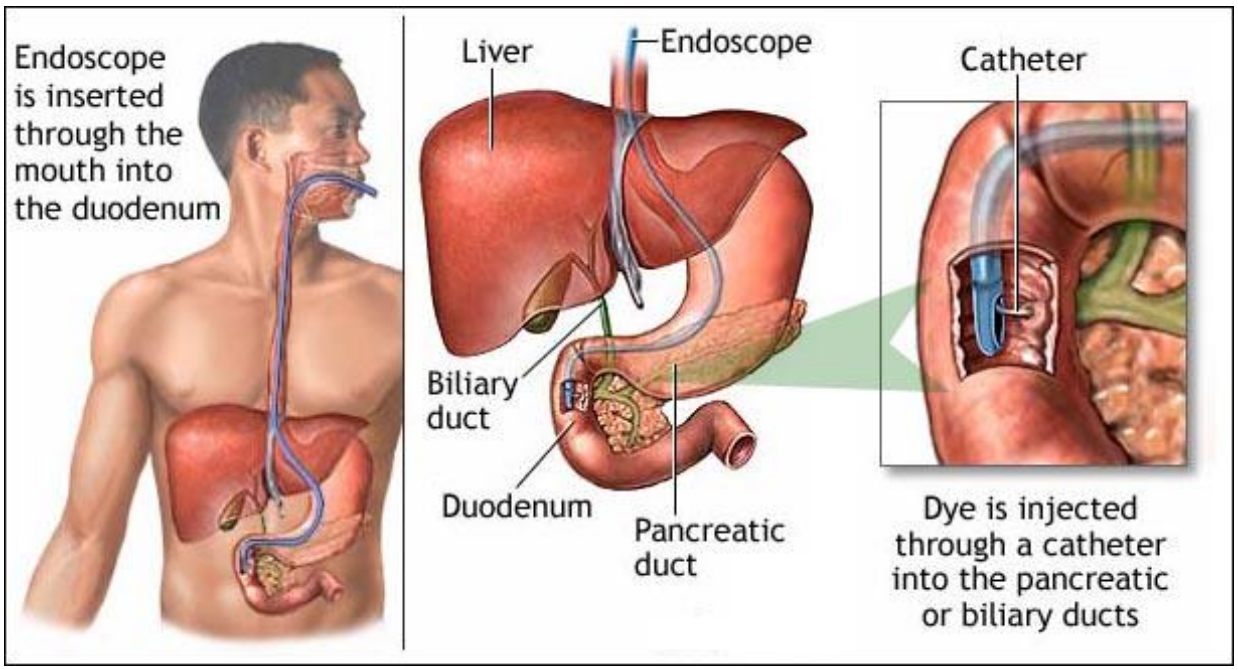
How is ERCP performed?

An endoscope, which is a flexible tube with a camera and bright light, is passed through your mouth into the gullet, stomach and the first part of the small bowel, known as the duodenum. This is where the outlet from the bile duct and pancreatic duct is usually located. A special plastic tube (**catheter**) is passed through a channel in the endoscope into the bile duct or pancreatic duct and X-ray dye is injected into the duct. This shows up on the X-ray screen and pictures can be taken.

If these X-rays are normal, then the test would be complete at this point. However, usually abnormalities have already been identified on previous tests, and ERCP has been performed to treat these problems. If necessary, a variety of different treatments may then be carried out. These include any of the following:

(1) Removing stones from your bile duct,
(2) Stretching of a narrowed bile duct.
(3) Often, the doctor will make a cut at the opening of the bile duct. This procedure is known as a **sphincterotomy**.
(4) Placing a short plastic tube called a **Stent** in your bile duct or pancreatic duct to release a blockage

It is necessary to replace or remove those stents at some later appointment that will be determined by the doctor. It is necessary that you check with the Discharge Team when your follow-up procedure will take place. It is important to contact the Endoscopy Department if you notice that your follow-up procedure is delayed beyond the target date.



Who needs an ERCP?

You have been advised to undergo this investigation to find the cause of your symptoms, help with treatment and if necessary, to decide on further investigation. This procedure is usually recommended for people with the following conditions:

- Individuals with jaundice and evidence of blockage of the bile duct, identified on ultrasound, CT scan or other tests. The blockage may be due to gallstones, possible tumours, strictures (narrowing of the ducts) or other abnormalities pressing on the ducts from the outside.
- Individuals with unexplained pancreatitis (inflammation of the pancreas).
- Individuals with complications following gallbladder surgery
- Individuals with infection in the biliary tract

What anaesthetic or sedation will I be given?

It is important that you are comfortable during the procedure to ensure that the endoscopist can perform the procedure successfully. Most patients will receive intravenous sedation (via an injection), often in combination with a local anaesthetic throat spray.

About local anaesthetic throat spray

A local anaesthetic drug is usually sprayed into the back of the throat to make it numb and make the procedure more comfortable for you. It can taste very bitter

but works rapidly. It has a similar effect to a dental injection and allows the camera to pass through your throat without you feeling it.

You must not have anything to eat or drink afterwards until the sensation in your mouth and throat has returned to normal. This is usually within 1 hour.

About intravenous sedation

Sedative drugs can be administered into a vein in your arm, which will make you drowsy and relaxed for the ERCP.

The widely followed sedation protocol in our trust is the one recommended by the British Society of Gastroenterology, known as *conscious sedation*. These drugs will NOT make you unconscious like a general anaesthetic. You will be in a state called *co-operative sedation*, which means that, although drowsy, you will still be able to hear what is said to you and will be able to follow simple instructions during the investigation. Sedation may also prevent you from remembering anything about the procedure afterwards. The decision on the dosage will take into consideration multiple factors, such as your age, body weight and underlying medical conditions. That is to minimise the risk of sedation-related complications.

You will be connected to a pulse oximeter by a finger probe, which measures your oxygen levels and heart rate during the procedure. Your blood pressure may also be recorded.

If you choose to have sedation, you must arrange for a friend or relative to collect you from the Endoscopy Unit and we recommend that they stay with you afterwards. You must not drive, ride a bike, operate machinery, climb ladders, or sign important documents for 24 hours following sedation. If you are not able to make these arrangements, we will not be able to give you sedation.

How long is ERCP?

The procedure duration can take anything from 30 minutes up to 90 minutes, depending on the anatomy and the complexity of the intervention.

What are the risks and side effects of ERCP?

As with most medical procedures, there are some risks involved. ERCP is an invasive procedure (unlike an X-ray or scan), and there is a possibility of

complications. You should be fully aware of these before giving your consent for the procedure. Please be reassured that the procedure is only performed if it is felt that the clinical benefit is greater than the risk. This is why one or more types of scan may have been performed before you are asked to have an ERCP.

The risks are **mainly associated with the procedure itself**, but can occur because of the administration of sedatives as well (including irritation in the vein at the site of injection).

It is felt that the overall risk of any complication is approximately **1 in 20** (5%). The overall risk of a life-threatening complication and death is approximately 1 in 200.

Antibiotics are sometimes given and precautions are taken to avoid an **allergic** response. If a patient has a reaction to the sedative, or experiences problems with their breathing or heart, then drugs are given to reverse the sedation and the procedure is postponed. Such complications are extremely unusual.

One of the most important risks is **pancreatitis** (inflammation of the pancreas) as a consequence of the ERCP procedure. The risk of this is estimated at approximately 1 in 25 to 1 in 30 (3% to 4%). It is mild to moderate in 90% of patients who develop it, but severe in 10%. Mild pancreatitis usually requires admission for about four days. If severe, this may be for ten days or longer. One of the complications of severe pancreatitis is local bleeding and damage to organs around the pancreas. Severe pancreatitis is life-threatening.

If a **sphincterotomy** is performed, bleeding can occur, but is usually minimal and stops itself. Occasionally, the person doing the ERCP may inject adrenaline into the area to control the bleeding. A transfusion may be required, but this is rare.

It is also possible for the camera to cause a tear or small hole in the bowel (known as a **perforation**). This can also occur as a consequence of the sphincterotomy. This is a serious condition, which often will require surgical treatment. However, it is much rarer than incidences of pancreatitis.

Infection of the bile duct (cholangitis) is again uncommon, but can occur. Patients are often given antibiotics before the procedure, and if they have a drain inserted, they will be given antibiotics afterwards as well.

Aspiration (breathing in) of fluids into the lungs can occur, but it is reduced by fasting before the procedure for the recommended period of time.

The regular audits for monitoring quality and safety parameters indicate that our Trust complication rates over the past 5 years have not exceeded the 5% bench mark, which is in compliance with the national targets.

Features that would suggest that a complication may have occurred are:

- Severe abdominal pain
- A firm, distended abdomen
- Vomiting
- Fever
- Chills and/or jaundice
- Problems with swallowing or a severe sore throat
- A crunching feeling under the skin

Careful monitoring by the endoscopy nurses helps ensure that problems are identified as quickly as possible. You will be discharged after the ERCP when you are well enough. It is therefore important that you contact the hospital again should you experience any of the features described above.

Patients taking blood thinning medication (antiplatelet and anticoagulants)

If there is a low risk of a person having a problem caused by a blood clot such as a stroke or a transient ischaemic attack (TIA) as a result of stopping blood thinning medication, then it is recommended that you stop your blood thinning medication before the test. This is because the risk of a serious bleed after most treatments during the camera test is believed to be higher than the risk of a stroke or TIA.

Are there any alternatives to this procedure?

Open abdominal surgery is an alternative to ERCP, but it is of greater burden and carries a higher complication risk.

You can have your biliary system and pancreas checked by a test known as an MRI scan. This is a powerful magnetic scan of the bile ducts, pancreas, gall bladder and can provide similar information to an ERCP.
However, there are some disadvantages:

- You may not be able to have it if you have metal in your body that cannot be exposed to the scanner
- Treatment of abnormalities is not possible e.g. the bile duct cannot be enlarged, stones cannot be removed and stents cannot be inserted.
- Biopsy samples cannot be taken

Getting ready for the procedure

Do not have anything to eat for at least six hours before the procedure. This is to ensure that your stomach is empty and the doctor has a clear view. You can drink small amounts of water for up to two hours before your appointment time.

Please continue to take your usual medication, except for those drugs that are listed at the beginning of this leaflet. You will be asked to remove any tight clothing, ties, dentures and spectacles. Please do not bring large amounts of money or valuables with you.

When you come to the department, please tell the doctor or nurse about any medical problems that you have, any medicines you are taking, and any possible allergies or bad side effects to medication you may have had in the past. It would be very helpful if you could bring a list of all your medication with you.

What will happen when I arrive?

When you arrive for your ERCP, you will be greeted by our reception staff and asked to sit in the waiting room. Your named nurse will ask you to come through to the preparation area shortly before your procedure. We will need to check your identity and go through any medical conditions, medication and allergies to ensure it is safe to proceed. We will also ensure arrangements have been made

for your journey home. Your blood pressure and pulse will be checked before the procedure.

You will meet your endoscopist before you go through to the endoscopy room. He/she will go through your consent form again and answer any questions you may have. If you have already signed your consent form, we will check with you that you have not changed your mind.

You will need sedation for the test, so a plastic tube, known as a cannula, will be inserted into a vein in your hand or arm to allow the drugs to be injected.

What happens in the procedure room?

You will be escorted into the procedure room where the other nurses helping the endoscopist will introduce themselves to you. You will have the opportunity to ask any final questions.

If you have any dentures, you will be asked to remove them at this point. Any remaining teeth will be protected by a small plastic mouth guard, which will be inserted immediately before the examination starts.

A local anaesthetic throat spray will be sprayed on to the back of your throat. The nurse looking after you will then ask you to lie on your left side and will place the oxygen monitoring probe on your finger. A drape will be placed over your clothes to protect them from saliva and other secretions. A combination of a sedative drug and pain-killer will be administered into a cannula in your vein and you will quickly become sleepy. You may also be given a dose of an antibiotic after checking for any allergies.

What happens during the procedure?

The endoscopist will introduce the endoscope into your mouth and ask you to take a big swallow when it is at the back of your throat. He or she will then advance the endoscope carefully down your oesophagus, into your stomach and then into your duodenum.

Your windpipe is deliberately avoided and your breathing will be unhindered. Any saliva or other secretions produced during the investigation will be removed using a small suction tube, again rather like the one used at the dentist.

The procedure usually takes about 30 minutes, but may take longer if extra procedures are required.

What happens after the procedure?

You will be escorted to the recovery area and allowed to rest for as long as is necessary.

You will be offered a cold drink when the sensation in your throat has returned to normal.

As you will have received sedation, your oxygen levels, blood pressure and heart rate will be recorded. It usually takes about 30 minutes for the initial effects of sedation to wear off; some people may feel fully alert immediately after the procedure, whilst others may remain drowsy for longer. However, the drugs remain in your blood system for about 24 hours and you can at times feel drowsy with lapses of memory. You will need someone to escort you home and supervise you for this 24 hour period.

Will I be told the results straight away?

Before you leave the department, the nurse or doctor will explain the findings on your ERCP and any medication or further investigations required. He or she will also inform you if you require further appointments. You may have had a stent (a type of drain) inserted and if necessary, you will need antibiotics afterwards. These will be prescribed for you. If samples were taken, they will need to be sent to the pathology lab for further analysis. It may take up to a fortnight for these results to be available to the medical team.

Sedation can make you forgetful and you may wish to have a family member or friend with you when you are given this information.

Cancellations

If you are unable to keep this appointment, please let us know as soon as possible on the phone numbers given on the first page of this leaflet. This will allow us to give your appointment to another patient and rearrange another one for you.

Comments, Compliments or Complaints

The Patient Relations/Patient Advice and Liaison Service (PALS) Department provides confidential on the spot advice, information and support to patients, relatives, friends and carers.

Contact Us

Tel: 01942 822376 (Monday to Friday 9am to 4pm)

The Patient Relations/PALS Manager
Wrightington, Wigan and Leigh NHS Foundation Trust
Royal Albert Edward Infirmary
Wigan Lane
Wigan WN1 2NN

Ask 3 Questions

Become more involved in decisions about your healthcare. You may be asked to make choices about your treatment. To begin with, try to make sure you get the answers to three key questions:

1. What are my options?
2. What are the pros and cons of each option for me?
3. How do I get support to help me make a decision that is right for me?

How We Use Your Information

For details on how we collect, use and store the information we hold about you, please take a look at our “how we use your information” leaflet which can be found on the Trust website: https://www.wwl.nhs.uk/patient_information/leaflets

This leaflet is also available in audio, large print, braille and other languages upon request. For more information please ask in department/ward.

CALL 111
when it's less urgent than 999