Having an ERCP

Patient Information

Author ID:	NP
Leaflet Number:	End 004
Version:	8
Name of Leaflet:	Having an ERCP
Last reviewed:	December 2019
Next Review Date:	December 2021

Please read through this leaflet carefully as soon as possible. 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.

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 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 otherwise known as an ERCP for short.

What is an ERCP?

ERCP is a procedure which allows the doctor to take detailed x-ray pictures of 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. In most patients, ERCP is carried out in order to treat an abnormality of these tubes.

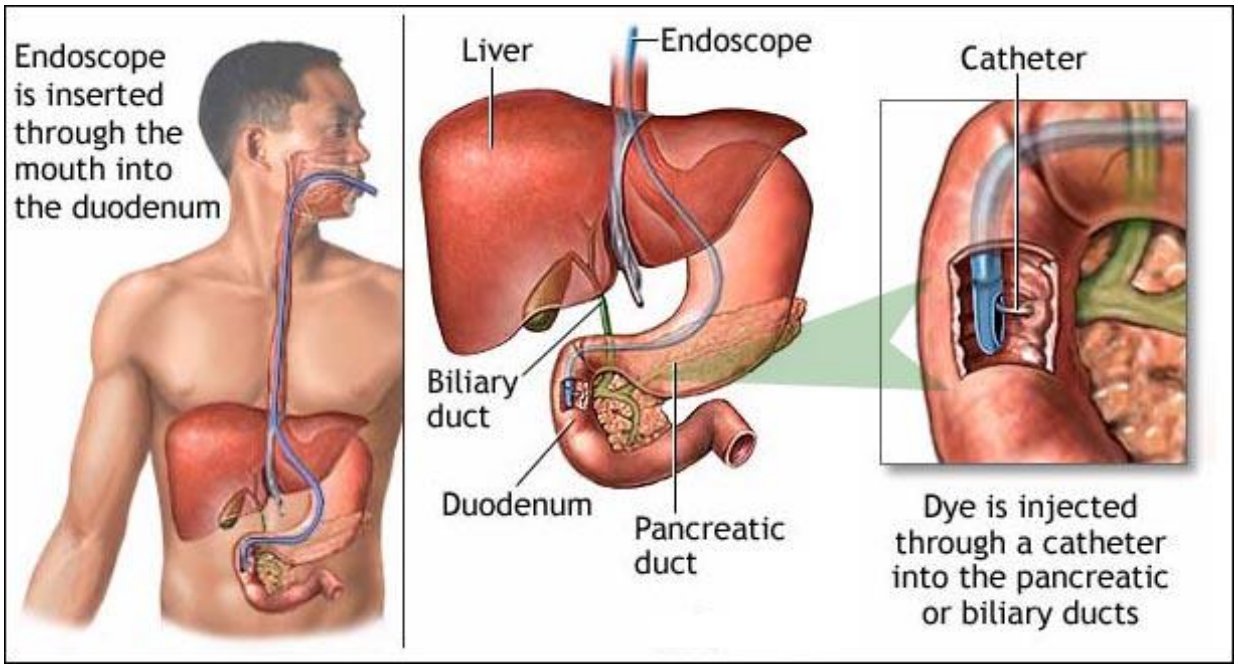
How is ERCP performed?

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 the x-ray shows a gallstone, the doctor will make a cut at the opening of the bile duct which allows the stone to be removed. This is done with an electrically heated wire (diathermy) which is also passed through the channels in the endoscope. This procedure is known as a **sphincterotomy** and is completely painless.

If a narrowing of the bile duct is found, which is preventing the fluid from the gallbladder and liver to drain in to your small bowel, a short plastic tube (**a stent**) can be inserted to release the blockage. You will not be aware of the presence of the tube which can remain in place indefinitely. Occasionally, it may be necessary to replace the tube some months later if it becomes blocked.



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 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 unexplained jaundice.
- Individuals with unexplained abnormalities of liver function blood tests.

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, 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 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.

These drugs will NOT make you unconscious like a general anaesthetic. You will be in a state called *cooperative 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.

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.

What are the risks and side effects of ERCP?

As with most medical procedures, there are some risks involved. ERCP is an invasive procedure (in comparison to an X-ray or scan) and there is a possibility of complications. You should be fully aware of these prior to 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, 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 result in 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. 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 will be given antibiotics afterwards as well.

Aspiration of fluids into the lungs can occur, but it is reduced by fasting prior to the procedure for the recommended period of time.

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.

Are there any alternatives to this procedure?

A test known as an MRI scan is an alternative to ERCP. This is a powerful magnetic scan of the hepatobiliary tract (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 as 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 may 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 be seated 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 prior to 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 confirm 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 commences.

A local anaesthetic throat spray this 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 but 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 intermittently 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 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 decide if you would like 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