

# ERCP - Endoscopic Retrograde Cholangio Pancreatogram

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## Introduction

Following your recent clinic appointment, visit to the doctor or inpatient assessment it has been recommended that you have an Endoscopic Retrograde Cholangio Pancreatogram (ERCP).

If you are unable to keep your appointment, please notify the department as soon as possible. This will enable the staff to give your appointment to someone else and they will be able to arrange another date and time for you.

This booklet will give you information about the investigation and its risks and benefits to help you make an informed decision about having the procedure.

**The consent form is a legal document**, therefore please read it carefully. Once you have read and understood all the information, including the possibility of complications, and you agree to undergo the investigation, **please sign and date the consent form**. You will notice that the form is in duplicate, allowing you to keep a copy for your records.

If however, there is anything you do not understand or wish to discuss further, do not sign the form, but bring it with you so you can discuss with a healthcare professional. Once you have made an informed decision you can then sign the consent form.

**This procedure requires your formal consent.**

## What is an ERCP?

ERCP is most commonly performed to diagnose and/or treat conditions of the pancreas or bile ducts. An ERCP is a type of endoscopy that uses a camera and x-ray screening. A flexible, lighted tube (endoscope) about the thickness of your index finger is placed through your mouth, into your stomach and the first part of the small intestine (duodenum). In the duodenum a small opening is identified (ampulla) and a small plastic tube (cannula) is passed through the endoscope and into this opening. Dye (contrast material) is injected and X-rays are taken to study the ducts of the pancreas and liver.

## Why do I need an ERCP?

ERCP is used to evaluate symptoms suggestive of disease in the pancreas or bile ducts.

The most common reasons for needing this procedure are:

- If you have jaundice (yellowing of the skin and eyes)
- Abdominal pain
- Weight loss
- Your blood tests have shown that you have abnormal liver function (especially if you have pain in the abdomen)
- If you have had a scan (ultrasound or CT or MRI) that shows a blockage of the bile or pancreatic ducts. Blockages can be caused by stones, narrowing of the bile ducts (strictures), or a tumour of the pancreas or bile ducts.

ERCP may be used before or after gallbladder surgery to assist in the performance of that operation. Bile duct stones can be diagnosed and removed with an ERCP. Tumours, both cancerous and non-cancerous, can be diagnosed and then treated with indwelling plastic tubes that are used to bypass a blockage of the bile duct. Complications from gallbladder surgery can also sometimes be diagnosed and treated with ERCP.

## **What are the benefits?**

An ERCP allows the doctor to gain detailed and accurate information about your pancreatic and biliary system. It will also allow the doctor to carry out the necessary treatment to make you feel better, relieve jaundice and can help when dealing with pain. ERCP is a non-surgical procedure offering treatment, without the need for an operation.

During ERCP gall stones can be removed from the bile ducts and stents (small plastic or metal tubes) can be inserted to allow drainage of bile or pancreatic ducts. An ERCP also allows samples (specimens of cells for analysis) to be taken if necessary. ERCP is usually performed as an outpatient procedure but it may be done as an inpatient depending upon procedure complexity.

Tumours, both cancerous and noncancerous, can be diagnosed and then treated with stents that are used to bypass a blockage of the bile duct.

Complications from gallbladder surgery can also sometimes be diagnosed and treated with an ERCP.

## **What are the alternatives?**

An alternative procedure to ERCP is a MRCP (Magnetic Resonance Cholangio-Pancreatography). This procedure, however, is only a diagnostic test and unlike the ERCP, is unable to offer treatment or cure.

## **What are the possible complications?**

### **A. The endoscopic examination:**

Serious complications are very rare.

The main risks include mechanical damage to teeth or bridgework. Mild discomfort in the abdomen and a sore throat, which may last a couple of days, are common side effects.

Some patients suffer from inflammation of the pancreas (pancreatitis) after the procedure. In order to reduce the risk of pancreatitis we may give you a suppository (a medication inserted into the back passage). If you develop pancreatitis it can cause pain in the abdomen, usually starting a few hours after the procedure and lasting a few days. You may need to stay in hospital.

Bleeding or cholangitis (infection of the bile duct) or a tear of the bowel lining (perforation) may occur. If such complications occur patients are admitted to hospital. In some cases an emergency operation may be required.

Some patients have a special stent inserted into their pancreas which is designed to fall out after a few days. To confirm this, you may be asked to have an x-ray of your abdomen a few weeks after the procedure. We will let you know after the procedure if this is needed.

### **B. Sedation:**

This can occasionally cause problems with breathing, heart rate and blood pressure. If any of these problems do occur, they are normally short lived. Careful monitoring by an endoscopy nurse ensures that any potential problems can be identified and treated rapidly.

Older patients and those who have significant health problems, for example, people with significant breathing difficulties due to a bad chest may be assessed by a doctor before being treated.

Please note that occasionally the test may need to be abandoned or may be incomplete. In this case, the test may need to be repeated or we may suggest an alternative procedure.

## **Preparation for the test**

### **Eating and drinking**

The procedure must be performed on an empty stomach to reduce risk of vomiting so you must not eat or drink for six hours before the test (only sips of water are safe up to two hours before the test).

### **Blood Tests**

You will need to have some blood tests one to two days before the procedure.

### **What about my medication?**

Please bring a list of your medications with you to your appointment.

### **Diabetics**

If you are diabetic please see the guidelines at the end of this booklet.

### **Anticoagulants**

If you are taking anticoagulants e.g. warfarin or acenocoumarol, the anticoagulation nurse will contact you at least seven days prior to your appointment about stopping, or dosing, and arranging a blood test. On arrival to the endoscopy unit the nurse will test your blood to check your INR and advise on dosing after the procedure.

If you are taking direct oral anticoagulants e.g dabigatran, rivaroxaban, apixaban and edoxaban stop these two days (at least 48 hours) prior to your appointment.

If you have any concerns please contact the Endoscopy Unit for advice.

### **Anti-platelet agents**

There is no restriction in taking aspirin or dipyridamole which can be taken as usual. If you are taking clopidogrel, ticagrelor or prasugrel **please stop these seven days prior to your appointment.** The referring doctor will tell you if you are required to take aspirin for that time period. However, if you have had a cardiac stent inserted in the last 12 months your consultant will need to discuss any changes to your medication with a cardiologist. If your consultant has not discussed this with you please ring the relevant secretary.

### **Other medication**

You should continue to take all of your other medications as normal, unless you have been told otherwise by your referring doctor.

## How long will I be in the department?

You can expect to be in the department for most of the day. You will not be able to eat for four hours following your test, this allows things to settle. After this time you will be offered something to eat (light, low fat) and drink. Providing you have no pain, nausea, or vomiting you will then be able to go home.

## What happens when I arrive?

You will be met by an endoscopy nurse who will ask you a few questions, one of which concerns your arrangements for getting home.

They will ensure you understand the procedure and discuss any outstanding concerns or questions you may have.

You will have a brief medical assessment regarding your medical condition and any past surgery or illness you have had, to confirm that you are sufficiently fit to undergo the investigation.

Your blood pressure, heart rate and oxygen levels will be recorded. If you are diabetic your blood glucose level may be checked.

You will then be asked to change into an examination gown. You are advised to bring a dressing gown with you, however, an over gown can be provided if necessary.

The nurse will insert a cannula into a vein, usually on the back of your hand, through which medication can be administered during the procedure.

**Please note that if you decide to have sedation you are not permitted to drive, take alcohol, operate heavy machinery or sign any legally binding documents for 24 hours following the procedure and you must have a responsible adult to accompany you home and stay with you over night.**

The consultant will take consent for the procedure and enable you to ask any further questions.

Please inform the staff if you are or could be pregnant.

## What happens during an ERCP?

Before the procedure starts a nurse will attach you to monitoring equipment such as blood pressure and ECG (heart) monitors.

You may also have some local anaesthetic throat spray to help numb the throat.

You will then be asked to lie on your left hand side or on your stomach and a plastic mouth guard placed in your mouth.

You will receive oxygen throughout the test, usually through a plastic tube via your nose.

ERCP is usually a well-tolerated procedure. A sedative and pain relief is given through the cannula which will help you to relax and make you drowsy but will not necessarily put you into a deep sleep.

A duodenoscope (endoscope) is passed through your throat, down your gullet, into the stomach and then into the top part of the small intestine. During the procedure the doctor will insert a fine wire into the bile ducts and inject dye, which shows up on x-rays. X-rays of various parts of your biliary or pancreatic system will be taken.

If stones need to be removed from the ducts then a small cut (sphincterotomy) or a balloon stretch may be made in the lower end of the bile duct to allow a small balloon or basket to be inserted to grasp a stone and remove it.

A wide variety of other treatments can be performed during ERCP and it may take up to one hour to perform.

## **What happens after the procedure?**

You will be looked after in the recovery bay and nurses will check your blood pressure and temperature regularly for the first couple of hours and observe you for any complications.

After three to four hours you are allowed to eat (a light low-fat diet for 48 hours will be recommended) and drink.

If you experience any pain or feel unwell please inform a nurse who can assist with making you comfortable.

You are normally allowed home the same day if no complications arise. Please ensure that you have someone to drive you home and stay with you overnight as you will be given sedation.

Either a doctor or nurse will explain the findings of the test and let you know the next stage of your treatment plan if necessary.

You may have a sore throat for about 24 - 48 hours

Report to A&E department if you experience persistent pain in the neck, chest, back or abdomen, if you develop a high temperature, new onset of jaundice (yellowing of the skin and eyes) or worsening jaundice.

## **Contacts**

If you need further advice please contact endoscopy on  
01493 452370 Monday to Friday 08.00 – 18.00

## **General points to remember**

It is our aim for you to be seen and investigated as soon as possible after your arrival. However, the department is very busy and your investigation may be delayed. If emergencies occur, these patients will obviously be given priority over less urgent cases.

If you have any problems with persistent or worsening abdominal pain after your procedure, please contact your GP immediately informing them that you have had an Endoscopy.

If you are unable to contact or speak to your doctor, you can phone or attend the hospitals A&E department. You can contact them on 01493 452559.

You may be given Buscopan® during this procedure – if on discharge you develop symptoms such as pain in the eye, blurred vision, haloes round lights, nausea or vomiting please report to A&E in case the eye pressure has gone up and needs treatment.

## **Privacy and Dignity**

Please note we have single sex changing, recovery and toilet facilities available in the unit.

Please be advised that relatives are not permitted into the procedure room with the patient or into the recovery areas. This is to protect other patients' privacy, dignity and enable staff to concentrate on looking after the patients.

## **Visit our website:**

<http://www.ipaget.nhs.uk/departments-services/departments-services-a-z/endoscopy-unit/>

## **Guidelines for people with diabetes on medication undergoing an ERCP**

As a person with diabetes, you need to adjust your treatment according to the timing of the appointment. As a result your blood sugar may be a little higher than usual. This is only temporary to maintain your blood sugars through the procedure and you will be back to your usual level of control within 24 – 48 hours of the procedure.

### **Carrying glucose to treat hypoglycaemia (low blood sugar)**

On the day of the procedure, carry glucose tablets in case of hypoglycaemia. As these are absorbed quickly through the tissues of the mouth, if sucked, they will not interfere with the procedure. Take three tablets initially, followed by a further three if symptoms persist after five minutes. If your medication has been adjusted, this should not be a problem.

### **Alternatives to glucose tablets**

Lucozade Sport 200mls (13 tablespoons)  
Grape juice 100mls (6 tablespoons)  
Sparkling apple juice 200mls (13 tablespoons)  
Coke or Pepsi (not diet) 200mls (13 tablespoons)  
Ribena 30mls (2 tablespoons) diluted  
Squash / barley water 70mls (4 tablespoons) diluted  
Sugar 4 teaspoons dissolved in 200mls of water

### **Blood glucose monitoring**

If you usually test your blood sugar levels, check them as usual on the morning of the procedure and bring your equipment with you to your appointment.

### **Patients taking tablets for diabetes or non-insulin injectable treatment (Exenatide, Lixisenatide, Liraglutide, Dulaglutide)**

Omit your tablets / injectable treatment on the morning of the appointment but bring them with you so that you can take them after the appointment once you are eating and drinking.

Inform the endoscopy nurses if your blood glucose has been low and you have needed to take hypoglycaemia treatment

## **Patients taking insulin for diabetes**

Do not have breakfast.

If you use basal insulin (Insulatard / Humulin I / Insuman Basal / Levemir / Lantus / Abasaglar / Tresiba) take **half** the usual dose the evening before (if you take an evening dose) and/or on the morning of (if you take a morning dose).

If you use an insulin pump, reduce the basal rate to 50% usual from 10pm the night before the procedure.

If you use quick acting insulin (Actrapid / Humulin S / Insuman Rapid / Novorapid / Humalog / Apidra / Fiasp) **omit** the dose on the morning of the procedure but bring the insulin to take once you are eating and drinking.

If you use mixed insulin (Humulin M3 / Insuman Comb 15 / Insuman Comb 25 / Insuman Comb 50 / Novomix 30 / Humalog Mix 25 / Humalog Mix 50 / Hypurin 30/70) the evening before the procedure, reduce the dose by one-third (e.g. if you usually take 12 units then take eight units).

**Report to the nursing staff if you have needed glucose before arriving, and inform them immediately if you feel hypoglycaemic at any time during your visit.**

You can take your regular dose of insulin as soon as nursing staff tell you that you can safely eat and drink.

**If you have any concerns about adjusting dosage, contact the Diabetes Nursing Team on 01493 453373 (answer phone).**

## This booklet was produced by:

The Endoscopy Team and The Endoscopy Patient Participation Group at the James Paget University Hospitals NHS Foundation Trust.

Diabetic patient information ratified by Dr Joanne Randall, Consultant Endocrinologist.

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### Feedback

We want your visit to be as comfortable as possible. Please talk to the person in charge if you have any concerns. If the ward/department staff are unable to resolve your concern, please ask for our Patient Advice and Liaison (PALS) information. Please be assured that raising a concern will not impact on your care. **Before you leave the hospital you will be asked to complete a Friends and Family Test feedback card.** Providing your feedback is vital in helping to transform NHS services and to support patient choice.

**TRUST VALUES: We CARE for...**  
*our patients... each other... ourselves*

#### BEHAVIOURS:

Courtesy and respect

Attentively kind and helpful

Responsive communication

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of the  
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The hospital can arrange for an interpreter or person to sign to assist you in communicating effectively with staff during your stay. Please let us know.

For a large print version of this leaflet, contact  
PALS 01493 453240