Endoscopic Retrograde Cholangiopancreatogram (ERCP)

Patient Information
Following your recent clinic appointment, visit to the doctors or inpatient assessment it has been recommended that you have an Endoscopic Retrograde Cholangiopancreatogram (ERCP).

**What is an ERCP?**
An ERCP is a type of endoscopy that uses a camera and x-ray screening, which allows doctors to examine and/or treat conditions of the bile and pancreatic ducts.

**Why do I need an ERCP?**
The most common reasons for doing this are jaundice (yellowing of the skin and eyes) or abnormal liver blood tests, especially if you have pain in the abdomen, or a scan (ultrasound or CT or MRI) shows a blockage of the bile or pancreatic ducts. Blockages can be caused by stones, narrowing of the bile ducts (strictures), and tumour of the pancreas or bile ducts.

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 to be taken if necessary. ERCP is usually performed as an outpatient procedure but it may be done as an Inpatient depending upon its complexity.

**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.
Diabetics
Adjusting therapy
As a person with diabetes, you will 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 in order to maintain your blood sugars through the procedure and you will be back to your usual level of control within 24-48 hours. Please see guidelines printed in the back of this leaflet.

Medication
Anticoagulants
If you are taking anticoagulants e.g. warfarin, dabigatran, rivaroxaban and apixaban the anticoagulation nurse will contact you about stopping or dosing and arranging a blood test. You will also need a blood test on the day of the procedure to check your INR and advise on dosing.

Anti-platelets
If you are taking clopidogrel or other antiplatelet agents please contact your consultant’s secretary or the endoscopy department as it may be necessary to temporarily stop these medications.

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 three to four hours following your test, to allow 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?
A nurse will ask you some questions about your medical history, check how you have prepared for the procedure and about your means of transport home. You will be able to ask the nurse any questions relating to the procedure.

You will be allocated a bed and changed into a gown. A cannula is will be inserted so we can give you sedation and pain relief prior to the procedure.
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 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 will be 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 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. 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 stretch (with a balloon) 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.

**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 them to carry out the necessary treatment to make you feel better, relieve jaundice and help deal with pain.

**What are the risks?**
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 we may give you a suppository (a medication inserted into the back passage). Some patients have a 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. If you develop pancreatitis it can cause pain in the abdomen, usually starting a few hours after the procedure and lasting a few days. If this happens you may need to stay in hospital for a few days.

Bleeding, infection of the bile duct (cholangitis) or a tear of the bowel lining (perforation) may occur. If such complications occur patients usually stay in hospital for treatment.

**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 and drink a light low-fat diet will usually be recommended for 48 hours.

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 Accident and Emergency department if you experience persistent pain in the neck, chest, back or abdomen, if you develop a high temperature, new onset 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
- If you are unable to keep your appointment please notify the Endoscopy unit as soon as possible
- 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.
- The hospital cannot accept any responsibility for the loss or damage to personal property during your time on these premises
- If you have any problems with persistent or worsening abdominal pain, 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 must go immediately to the hospitals A&E.
- We routinely administer 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 patient’s privacy, dignity and enable staff to concentrate on looking after the patients.

Guidelines for people with diabetes undergoing Endoscopic Retrograde Cholangiopancreatogram (ERCP) procedure

Insulin
Every effort will be made to offer you a morning appointment if you are on insulin and require an endoscopic procedure. If you have been given an afternoon appointment please be sure to tell the department that you are a diabetic on insulin.

a. If you are on insulin 4 times daily or more and require insulin adjustment advice, contact the Diabetes Nursing Team on 01493 453373 (answer phone).

b. If you are on an insulin infusion pump there is no need to make any adjustment to your bolus insulin doses. Your basal insulin should be reduced by 30% for 2 hours before and 2 hours after any booked procedure time. This can be extended, if necessary, according to recovery and diet.

c. If you are on pre-mixed insulin (e.g. Humulin M3, Insuman Comb 25 or NovoMix 30) up to 3 times daily

Evening before:
Reduce your insulin dose by a third at your evening meal

Morning of the appointment:
You should have nothing to eat after midnight but may have water up to 06.00 hours. If you feel hypoglycaemic, take glucose tablets, or drink clear sugary fluids from the list at the end of this information.
Do not take your morning dose of insulin but bring your insulin with you to take after the procedure and once the nursing staff have informed you that you are able to eat and drink safely.

You should only take your insulin with food.

If you normally take insulin at breakfast and evening meal, reduce the first dose after your procedure by half if taken after 1100 hours. This is to give you sufficient time lapse between the two injections to reduce the risk of hypoglycaemia in the evening.

If you take insulin at breakfast, lunch and evening meal omit the morning dose and take your normal dose at lunchtime.

d. **If you are on short acting and medium/long acting insulin which are not pre-mixed eg Actrapid and Insulatard or Hypurin Porcine/Beef Neutral and Hypurin Porcine/Beef Isophane and have a morning appointment**

   **Evening before:**
   Reduce medium / long acting insulin by a third.

   Take normal short acting insulin.

   **Morning of appointment:**
   Do not take your morning dose of short acting insulin but bring it with you to take after the procedure and with food.

   You should take half your normal dose of medium / long-acting insulin at your normal time even though you are not eating.

e. **If you are on once daily insulin and have a morning or afternoon appointment**

   You should not need to make any adjustment to your evening dose.

   You should reduce any morning dose by a third even though you are not eating.
Diabetic Tablets

Every effort will be made to offer you a morning appointment if you are a tablet controlled diabetic and require an endoscopic procedure. If you have been given an afternoon appointment please be sure to tell the department that you are a diabetic on tablets.

You should have nothing to eat after midnight but may have water up to 0600 hours. If you feel hypoglycaemic, take glucose tablets, or drink clear sugary fluids from the list at the end of this information.

a. If you are on Diabetic tablets and have a morning appointment

Evening Before:

If you are taking -
Nateglinide (tablet)
Repaglinide (tablet)
Gliclazide (tablet)
Glimepiride (tablet)
Glipizide (tablet)
Tolbutamide (tablet)

It is not necessary to make any dose reduction.

If you are taking glibenclamide (tablet) reduce any evening dose by half.

If you are taking metformin, it is not necessary to make any dose reduction.

Pioglitazone, Sitagliptin, Saxagliptin, Linagliptin and Dapaglifoxin are all diabetic tablets normally taken in the morning. If you are taking any of these you do not need to make any dose changes.

Vildagliptin is normally taken twice daily but it is not necessary to reduce the evening dose.
Acarbose may be taken up to three times daily. If you are on Acarbose it is not necessary to make any dose changes on the day before the procedure.

Liraglutide and Lixisenatide (injections) are normally taken once daily in the morning. You do not need to make any changes on the day before the procedure. If you normally inject either of these before your evening meal, do not take the evening dose but restart your normal dose on the following evening (the day of the procedure).

Exenatide (injection) is normally taken twice daily. Take your morning injection as normal but do not take the evening injection.

**Morning of the appointment:**
Do not take your morning dose of tablets, but bring them with you to take after the procedure. Report to 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 the following diabetic medications, with food, as soon as the nursing staff inform you that you can eat and drink safely: metformin, Pioglitazone, Sitagliptin, Saxagliptin, Linagliptin, Vildaglaptin, Liraglutide, Lixisenatide, Exenatide, Dapagliflozin, Acarbose

You should not take your morning dose of any of the following: Nateglinide, Repaglinide, Gliclazide, Glimepiride, Glipizide or Tolbutamide but resume your normal dose at the evening meal.

Bydureon (slow release exenatide) is taken once weekly by injection. If this coincides with the morning of your procedure, do not take in the morning but take with the evening meal.
b. **If you are on diabetic tablets and have an afternoon appointment**

Take any medication, as normal on the day before the procedure. If you feel hypoglycaemic, take glucose tablets, or drink clear sugary fluids from the list at the end of this information.

**Morning of the appointment:**
You should have nothing to eat after 0930hrs on the morning of the procedure. Do not take your morning dose of tablets or injection but bring them with you to take after the procedure or with your evening meal using the same guidelines as for a morning procedure.

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

**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
Our Values
Our Behaviours

James Paget University Hospitals
NHS Foundation Trust

The hospital is able to arrange for an interpreter to assist you in communicating effectively with staff during your stay through INTRAN. If you need an interpreter or a person to sign, please let us know.

If you require a large print version of this booklet, please contact PALS on 01493 453240

Courtesy and respect
- A welcoming and positive attitude
- Polite, friendly and interested in people
- Value and respect people as individuals
So people feel welcome

Responsive communication
- Listen to people & answer their questions
- Keep people clearly informed
- Involve people
So people feel in control

Attentively kind and helpful
- Look out for dignity, privacy & humanity
- Attentive, responsive & take time to help
- Visible presence of staff to provide care
So people feel cared for

Effective and professional
- Safe, knowledgeable and reassuring
- Effective care / services from joined up teams
- Organised and timely, looking to improve
So people feel safe