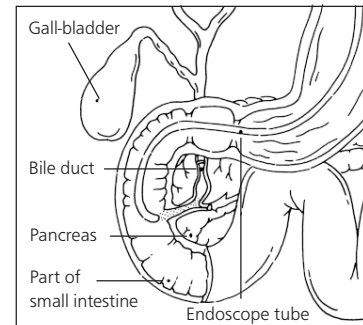


a drip instead of by mouth until the pancreas has recovered. The chances of developing acute pancreatitis after an ERCP sufficient to delay discharge from hospital are between 1 and 5 patients in every 100 patients having the procedure. For most patients recovery takes only a few days, and only very rarely are there more serious or potentially fatal complications.

- Bleeding - if the doctor finds during the ERCP examination that you have a gallstone blocking your bile duct, he or she will make a small cut (known as a sphincterotomy) to allow the stone to fall out into the intestine. Occasionally there is a little bleeding after this cut is made, but this usually settles down without any serious consequences. Rarely, bleeding can occur after you have been discharged from hospital (up to 48 hours after the procedure). If you pass black sticky stools after an ERCP, you should contact your General Practitioner or come to the Accident and Emergency Department to check whether or not you have had any internal bleeding.
- Perforation - this is rare. A perforation is a tear or hole in the intestine or bile duct caused by the ERCP equipment. Some perforations close up on their own, but an operation may be required to close the perforation. The risk of perforation at ERCP following a sphincterotomy is less than one patient in 100.
- Repeat ERCP - occasionally, there are technical problems during the ERCP so that the procedure cannot be completed. If this happens, the patient may require another procedure. This is most likely to happen if the patient is jaundiced. The yellowness typical of jaundice is due to a blockage in the drainage from the liver, and is not always possible to relieve this at the first attempt.

Once the examination is complete you will feel sleepy and you will be taken back to the Endoscopy Unit to recover, then after a short while back to your ward. You will need to have a rest, and the nurses will be able to advise you when you can eat and drink. You will be told about the results of the test and what treatment has been given. You should be able to leave on the day following the procedure.

ENDOSCOPIC RETROGRADE CHOLANGIO - PANCREATOGRAPHY (ERCP)



As a result of tests, you have been advised to have an ERCP (Endoscopic Retrograde Cholangio-Pancreatography). This is an x-ray examination of the pancreas and bile ducts. If a blockage is found, it may be possible to relieve it during this procedure. An ERCP is usually the best way of looking at the pancreas, gall bladder and the bile ducts. *These organs can also be*

examined by injecting dye through the liver which is called a Percutaneous Transhepatic Cholangiogram (PTC), or by using a magnetic resonance scanner called a Magnetic Resonance Cholangio-Pancreatography (MRCP). A PTC carries more risks than an ERCP and an MRCP does not offer any possibility of relieving a blockage in the system.

This leaflet has been prepared after talking to patients who have had an ERCP. The doctors and nurses you meet in hospital will also explain the procedure to you, but if you have any further questions, please do not hesitate to ask them.

It is important that you have nothing to eat or drink from 8am on the morning of your procedure in order to provide a clear view during the test. After the procedure you will have a routine overnight stay in hospital. You will be admitted to a general ward at 10.00 am on the day of your procedure. This is so that blood tests can be taken in preparation for the procedure. You will also be seen by a doctor who will explain the procedure to you, and answer any questions which you may have. A cannula (a small plastic tube)

will be inserted into a vein in either your hand or your arm. This will be used to give you some antibiotics before the procedure and other medications during the procedure. Please tell the doctor or nurse if you have any allergies or have had any bad reactions to drugs or other tests. It is very important that you inform us if you are taking Warfarin, are diabetic, have a pacemaker or replacement heart valve or are allergic to latex. Because x-rays are being used during the procedure, it is also important that you should tell the doctor or nurse if you are, or think you might be pregnant. We will also want to know about any previous endoscopy procedures you may have had. If you have any worries or questions at any stage, please do not be afraid to ask. The staff will want you to be as relaxed as possible for the procedure and will not mind answering your queries.

You will be asked to undress and put on a hospital gown. It will be necessary for you to remove any false teeth and contact lenses. Jewellery or metal objects should also be removed because they interfere with x-rays and also a special instrument called a diathermy that may be used during the procedure. Your valuables will be kept safe until after the procedure. During the afternoon, you will be taken down to the Endoscopy Unit where a nurse will thoroughly explain the procedure to you. The doctor performing the ERCP will also discuss it with you, and then ask you to sign a consent form. This is to ensure that you understand the procedure and its implications. When ready you will then be taken down to the X-ray department, where you will be introduced to the nurses who will take care of you.

In ERCP, the doctor takes detailed X-rays of the bile duct and/or the pancreas. Your throat will be numbed with a local anaesthetic spray, and you will be asked to lie down on the x-ray table. You need to lie down on your left side, but with your left arm behind you so you are able to go onto your stomach during the examination. A clip will be placed on a finger to monitor your pulse and oxygen levels and a small sponge may be placed into one nostril to provide you with a little oxygen. This is completely routine, and nothing to worry about. A mouth guard will be placed in between your teeth or gums and gently secured. You will be given an injection via the cannula in your hand or arm, which will make you feel relaxed and a little sleepy during

the procedure. You will not be fully asleep and you should hear what is being said and co-operate with instructions, however, you may have little or no recall of the procedure. Once you are sleepy, an endoscope (a long, thin flexible tube with a bright light at one end) will be passed through your mouth, down into your stomach and the upper part of your small intestine (the duodenum). X-ray dye will be injected down the endoscope so that the pancreas and bile ducts can be seen on x-ray films. If everything is normal, the endoscope is then removed and the test is complete. The dye is passed out of your body harmlessly.

If the X-rays show a gallstone, the doctor will enlarge the opening of the bile duct. This is called a sphincterotomy and is done with an electronically heated wire, known as a diathermy, which you will not feel. Any stones can then be removed by using a balloon or collected in a small basket and left to pass through your intestine with no harm.

If a narrowing is found, bile can be drained off by inserting a stent, which is a small plastic tube into the bile duct. You will not be aware of the presence of the stent, which usually stays in permanently. Occasionally it may become necessary to replace the stent if it becomes blocked.

ERCP was developed to provide a safer way of treating patients who are too ill to have an operation, but is now also the preferred investigation and treatment procedure for a variety of problems relating to gallstones and the pancreas. It carries a lower risk of complication than an operation, but occasionally problems are experienced after the test, such as:

- Acute Pancreatitis - this means inflammation within the gland known as the pancreas. Normally the pancreas produces proteins to digest food. If it becomes irritated, for example after an ERCP, some of these digestive enzymes leak out and cause upset to other parts of the body. The main symptoms of acute pancreatitis are abdominal pain and vomiting, and part of the reason for the standard overnight stay in hospital as it is important to watch for and deal with this problem should it occur. If the pancreas has become inflamed you will need to rest for a few days. This means staying in hospital and receiving fluids through