Mersey and West Lancashire Teaching Hospitals NHS Trust

Having a Percutaneous Biliary drain

Patient information leaflet

If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترس‌پذیر نیاز دارید،
لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formacie,
proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil,
vă rog să discutați cu un membru al personalului să se ocupe
de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

إذا احتجت إلى هذه النشرة بلغة أُخرى، أو بتنسيق
يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

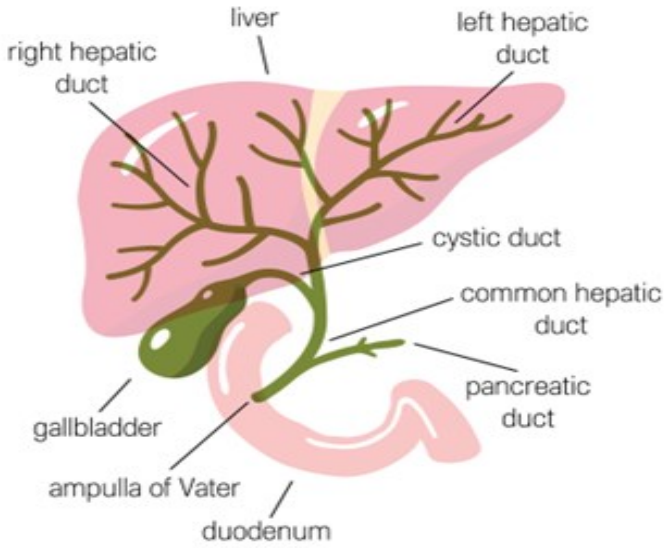
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Introduction

This leaflet tells you about the procedure known as Percutaneous Biliary drainage. It explains what is involved and what the possible risks are. It is not meant to be a substitute for informed discussion between you and your doctor, but can act as a starting point for such a discussion. Whether you are having the procedure as planned or as an emergency procedure you should have sufficient explanation before you sign the consent form.

What is biliary drainage?

One of the normal functions of the liver is to produce bile. This drains through a series of small tubes (ducts) and eventually drains into one large tube, the common bile duct, which itself empties in to the duodenum (first part of the small bowel). If the bile duct becomes blocked either by gallstones, inflammation or a tumour around the pancreas, the bile cannot drain and the skin becomes jaundiced (yellow). This is serious and need to be treated by draining the bile.



BILE DUCT ANATOMY

Why do I need percutaneous biliary drainage?

The procedure involves inserting an internal, external or both drain into your bile duct through a tiny hole in your skin. You may have already had other tests, such as an ultrasound scan or a CT scan that have shown that your bile ducts are blocked. You may have also had an unsuccessful ERCP and the doctors looking after you have decided that you would benefit by having a percutaneous drainage tube inserted. This may then be easily changed for an internal drainage tube and / or stent at a later date if needed.

Who will you see?

A specially trained team of radiographers and nurses led by an interventional radiologist within the radiology department. Interventional radiologists have special expertise in reading the images and using imaging to guide catheters and wires to aid diagnosis and treatment. Due to the similarity of an operating theatre all staff members will be wearing scrub uniforms.

How do I prepare for the procedure?

You need to be an inpatient in the hospital. You will have blood tests performed beforehand to check that you do not have an increased risk of bleeding. If you are taking any blood thinning medications, you will be given instructions when to stop these before your procedure.

If you have any allergies, you must let your doctor know. If you have previously reacted to intravenous contrast medium, the dye used for CT scanning, then you must also tell your doctor about this.

Where is the procedure performed?

The procedure will take place in the Radiology department in a special “screening room” design specially for this type of procedure. This is similar to an operating theatre into which specialised X-ray equipment has been installed.



What happens during the drainage?

You will need to lie on the X-ray table, on your back. A fine soft tube will be placed into a nostril to give you oxygen to breathe during the test. You will be given an injection to make you sleepy and ease any discomfort you may feel. There will be a nurse looking after you during the procedure, who will monitor your pulse and blood pressure. They will give you extra painkillers if needed.

The area of skin where the drain is to be placed will be cleaned with antiseptic. The doctor will inject a local anesthetic under the skin to numb the area. This may sting a little, the rest of your body will be covered by a sterile sheet.

The doctor will then insert a fine needle into your liver guided by an ultrasound machine and X-rays. Once the needle is in a satisfactory position, X-ray dye is used to assess the bile ducts.

One of the following will be inserted;

- **External drain** – a plastic tube that is fixed to the skin by a stitch (suture) and drains the bile from your body into a drainage bag.
- **Internal / external drain** – a plastic tube, which crosses the bile duct blockage and drains bile into the duodenum and into an external drainage bag.
- **Internal stent** – a permanent metal tube, which is placed across the obstruction to relieve the blockage. A temporary external drain may also be used for a few days. It is highly likely this procedure will be performed whilst you are under a general anesthetic (GA).

What happens afterwards?

You will be taken back to your ward on a trolley. Nurses on the ward will carry out routine observations, such as taking your pulse and blood pressure, to make sure that there are no problems. You will generally stay in bed for a few hours, until you have recovered.
Be aware that you are connected to a drainage bag.

Try not to make any sudden movements, such as getting out of bed or a chair, remember you have a drainage bag with you. The bag will need to be emptied regularly and the nurses must measure and record the amount of bile each time.

You may have to have further X-rays to check if the drain or stent is working. Your doctors will discuss with you if you need any further procedures and if the external drain can be removed. If you have a stent it will be left in permanently.

Are there any risks or complications?

Percutaneous biliary drainage is a safe procedure and should result in an improvement in your medical condition. However, there are some risks and complications that can arise.
Any procedure using sedation can result in complications, although they are rare. They include a reaction to the medicines used (nausea or skin reactions) or the effect on any ongoing disease process (e.g. heart, lung or kidney disease).

Taking X-rays involves a small dose of radiation, but this is no greater than any standard X-ray test and is well within recommended limits.

Specific complications of percutaneous biliary drainage.

- The doctor may be unable to place the drainage tube. This is usually due to the ducts not being wide enough for the needle to be placed.
- Occasionally there is a bile leak from the duct where the tube has been inserted. This results in a small collection of bile inside the abdomen which can be painful. The leak from the duct should stop within 48 hours, but may need draining.
- If you are jaundiced you may have problems with blood clotting causing slight bleeding from the wound site. On rare occasions this may become severe and need a blood transfusion or another procedure to stop the bleeding.

Radiation

Having a biliary drain involves the use of radiation. Any examination using radiation is only performed when strictly necessary and it is felt the benefits of the examination outweigh any potential risks. All imaging is performed using the minimum amount of radiation necessary, and is individualised for each patient depending on the size of the patient and the condition being investigated.

For more information on radiation please see the link below:
https://www.ukhsa-protectionservices.org.uk/radiationandyou/

Pregnancy

If you are, or think you could be pregnant, please contact us prior to your appointment on the phone number in your appointment letter.

Injection of X-ray contrast (dye)

If you have had an allergic reaction to iodine or the X-ray contrast (dye) in the past, then you must tell us prior to, or on arrival for, your appointment. The contrast (dye) used during the procedure contains iodine.

There are risk factors associated with injections of X-ray contrast (dye), which can be increased by certain conditions. We will complete a safety questionnaire to check your suitability to have the X-ray contrast (dye). The risk of serious allergic reaction to contrast materials that contain iodine is extremely rare, and radiology departments are well equipped to deal with them.

The injection usually causes nothing more than a warm feeling passing around your body, a metallic taste in your mouth and a sensation of passing water. These effects will pass within a few minutes.

Table 1: Types of allergic reaction to Contrast (X-ray Dye)

Category	Type
Mild	Minor rash, redness, Swelling of the skin, Mild nasal congestion, sneezing, runny nose. Mild high blood pressure, nausea, Mild vomiting.
Moderate	Generalised redness Marked rash, Itching, and swelling of the skin, Hoarseness or throat tightness, Fainting Swelling of face and throat.
Severe	Respiratory arrest Cardiac arrest Fluid on the lung Seizures Cardiogenic shock The risk of death is extremely rare.

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Notes

Finally

The pictures taken during the examination are studied carefully and a detailed report is produced. The results will be sent to the person who referred you for the test. They will discuss the results with you and any treatment you may need.

You may already have an appointment with the team who referred you. If not, please contact them to arrange one to discuss the results of this test.

If you have any further questions, please do not hesitate to call the Radiology department via the number given on your appointment letter.

As this is a teaching hospital there may be students and observers present during your examination as part of their ongoing training. Please let the staff know if you do not wish any students to be present during your attendance.

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