

Interventional Percutaneous Transhepatic Cholangiogram (PTC)

Your doctor would like you to have a Percutaneous Transhepatic Cholangiogram (PTC) and has arranged for you to visit our department. We would like your visit to be as pleasant as possible and hope this leaflet will answer some of the questions you may have. Should you have any questions regarding your appointment please contact us on the appropriate telephone number below:

- Conquest Hospital Appointments - Tel: 0300 131 4500 Ext: 147422
- Eastbourne DGH Appointments - Tel: (01323) 414917

What is a Percutaneous Transhepatic Cholangiogram (PTC)?

One of the normal functions of the liver is to produce bile which is important for digestion. The bile drains from the liver to the bowel through a series of small tubes or ducts. If the bile duct becomes blocked, then bile cannot drain normally and jaundice (yellowing of the skin) develops.

To treat the jaundice, the bile needs to be drained from the liver. This can be done by either inserting a drain to externally drain out the bile or placing a stent through the blockage to open it up. The PTC is the process of taking pictures of the bile ducts to see where the blockage might be.

Who will be doing the PTC?

A specially trained doctor called an interventional radiologist. They have particular expertise in performing procedures under image guidance. There will also be at least one specially trained nurse and a radiographer in the room during the procedure.

Where will the procedure take place?

This procedure will take place in the angiography suite within the X-ray department. This is similar to an operating theatre into which specialised X-ray equipment has been installed.

How do I prepare for a PTC?

You will need to be admitted to hospital either as a day case or for an overnight stay

- **For a morning admission, please do not eat or drink anything from midnight - you can drink water for up to two hours before the procedure.**
- **For afternoon admissions, you may eat a light breakfast but please do not eat anything after 6.00am - you may drink water for up to two hours before the procedure.**

Take your medicines as normal with a sip of water, unless your doctor or nurse tells you not to.

If you have any allergies, you must let your doctor know. You must also tell your doctor if you have previously had a reaction to intravenous contrast medium, the dye used for certain x-ray and CT scanning.

If you are taking warfarin or any other blood thinning medication, please call the interventional radiology department.

If there is possibility you could be pregnant, please inform the radiology department before the procedure.

What actually happens during a PTC?

Before the procedure, the interventional radiologist will explain the procedure and related risks and ask you to sign a consent form. Please feel free to ask any questions that you may have and remember that even at this stage, you can decide against going ahead with the procedure if you so wish.

You will be asked to get undressed and put on a hospital gown. A small cannula (thin tube) will be placed into a vein in your arm so that the radiologist can give you a sedative or painkillers should this be necessary. Once in place, this will not cause any pain.

You will be asked to lie on the X-ray table, generally flat on your back. You will also have leads attached to your chest to monitor your heart, a blood pressure cuff on your arm and a clip on a finger to record the oxygen levels in your blood. Oxygen may be given through a small tube in your nose. The radiologist will use an ultrasound machine to decide on the most suitable point for accessing the bile ducts, generally between the lower ribs on the right hand side.

The radiologist will wear a theatre gown and operating gloves. The skin near the point of insertion will be cleaned with antiseptic and then most of the rest of your body covered with a sterile theatre drape.

The skin and deeper tissues over the liver will be numbed with local anaesthetic. A needle followed by a wire and catheter (fine plastic tube) will be inserted into the bile ducts using ultrasound and x-ray guidance. A small amount of x-ray dye (contrast agent) is injected to allow images to be taken of the ducts.

The procedure may finish at this stage or a stent or drainage catheter may be inserted, this will depend on what the radiologist finds.

What are the potential risks?

Percutaneous transhepatic cholangiogram is considered a safe medical procedure, but there is always a small risk of complication.

- It is normal to have some discomfort from the puncture site once the local anaesthetic has worn off. This can be treated with painkillers.
- If there is a leak of bile for any reason into the abdomen from this procedure, it can be easily rectified by inserting a drainage catheter attached to a bag. This would be a temporary measure until the fluid has gone.
- As patients with jaundice are more likely to have difficulties with blood clotting, there may be slight bleeding from the surface of the area where the catheter is inserted. On rare occasions, this may require blood transfusion. On very rare occasions, this may become severe and require an operation or another radiological procedure to stop it.
- If the bile is infected, although you may be on antibiotics, there is a small risk that infection might be released into your bloodstream, making you unwell for a period.
- Allergic reactions to the x-ray dye (contrast medium) used are possible.

Will it hurt?

When the local anaesthetic is injected, it will sting to start with, but this soon wears off and the skin and deeper tissues should then feel numb. Later, you may be aware of the needle, or the wire and catheter passing into the liver, sometimes this is uncomfortable.

There will be a specially trained nurse in the interventional suite looking after you. If the procedure does become uncomfortable for you, they will be able to administer painkillers through the needle in your arm.

How long will it take?

Every patient's situation is different and it is not always easy to predict how complex or how straightforward the procedure will be. Some procedures take around half an hour. Other procedures may be more involved and take longer, perhaps over an hour. As a guide, expect to be in the x-ray department for about an hour and a half altogether.

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. They will also look at the skin entry point to make sure there is no bleeding from it. You will generally stay in bed until the effects of the sedation have worn off, maybe one to two hours.

If you have an external drainage catheter attached to a bag, it is important that you try and take care of this. You should try not to make any sudden movements, for example getting up out of a chair, without remembering about the bag, and making sure that it can move freely with you. However, you will be able to lead a normal life with the catheter in place. The bag needs to be emptied fairly frequently so that it does not become too heavy, but the nurses will want to measure the amount in it each time. Taking the external catheter out does not hurt. If you have a metal stent placed and no external drain, then all that remains is a small puncture site, which is covered by a small plaster.

What should I do when I go home?

When you get home you should:

- Rest for a minimum of 24 hours and if possible do not go to work on the day after the procedure
- It is recommended that someone stays with you overnight, particularly if you had sedation
- You should eat and drink as normal
- Continue with your normal medications as prescribed and pain relief if necessary. If you take anticoagulants, restarting these will be discussed with you before you are discharged.

What do I do if I have a problem at home?

If you have severe pain or are concerned please go to your nearest emergency department.

Sources of information

British Society of Interventional Radiology.

Important information

The information in this leaflet is for guidance purposes only and is not provided to replace professional clinical advice from a qualified practitioner.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact the Patient Experience Team – Tel: 0300 131 4500 Ext: 135860 or by email: esh-tr.patientexperience@nhs.net.

Hand hygiene

The Trust is committed to maintaining a clean, safe environment. Hand hygiene is very important in controlling infection. Alcohol gel is widely available at the patient bedside for staff use and at the entrance of each clinical area for visitors to clean their hands before and after entering.

Other formats

If you require any of the Trust leaflets in alternative formats, such as large print or alternative languages, please contact the Equality and Human Rights Department.

Tel: 0300 131 4500 Email: esh-tr.AccessibleInformation@nhs.net

After reading this information are there any questions you would like to ask? Please list below and ask your nurse or doctor.

Reference

The following clinicians have been consulted and agreed this patient information:

Dr Mo Faris, Consultant Interventional Radiologist, ESHT

Dr Justin Harris, Consultant Interventional Radiologist, ESHT

Dr Ben Salt, Consultant Interventional Radiologist, ESHT

The directorate group that have agreed this patient information leaflet:

Diagnostics, Anaesthetics and Surgery Division

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