

## **Information for patients having a percutaneous nephrostomy.**

### **What is a percutaneous nephrostomy?**

Normally the urine drains from the kidney into the bladder through a narrow muscular tube called the ureter. This tube may become blocked for example; by a blood clot or stone. The kidney can quickly become affected especially if there is an infection present as well. It may become necessary for an operation. It is also possible to put in a small plastic tube called a catheter using local anaesthetic. The catheter is placed through the skin (percutaneous) and into the kidney (nephrostomy). The urine is then able to drain from the kidney through the tube into a special collecting bag which is outside of the body.

### **Why do i need a percutaneous nephrostomy?**

You will have had some other tests which have shown that the tube from your kidney to your bladder is blocked. It may not be obvious what is causing the blockage. If it is not treated your kidney will become damaged.

### **Are there any risks or complications?**

Percutaneous nephrostomy is a very safe procedure but as with any medical procedure there are some risks and complications that can occur.

Probably the main problem is not being able to place the tube satisfactorily into the kidney. If this happens then a surgeon will arrange another way of dealing with the blockage. This may involve surgery. Sometimes urine may leak from the kidney causing a small collection of fluid inside the abdomen. If this becomes a large amount it may need to be drained.

There may be slight bleeding from the kidney. Rarely this may be severe and require a surgical operation or another radiological procedure to stop it.

There may be infection in the kidney or the surrounding space. This can usually be treated very well with antibiotics.

### **What are the benefits?**

In spite of these possible risks the procedure is usually very safe and will result in good improvement in your condition. Very rarely an operation is necessary but if the nephrostomy had not been tried first then this operation would have been needed anyway.

Percutaneous nephrostomy is considered to be a very safe procedure which can save the need for a larger operation. Although there are some slight risks involved these are usually minor and do not happen very often.

### **What are the alternatives?**

You will be able to discuss alternatives with your doctor. Your doctor and the radiologist performing the nephrostomy will have already decided that this is the best option for you. However if you decide that you do not want the percutaneous nephrostomy then you have the right to say so.

**Who will be doing the percutaneous nephrostomy**

A specialist called a Radiologist will be doing the procedure. The Radiologist is specially trained to carry out procedures requiring the use of various imaging techniques such as ultrasound and x-ray screening.

**Where will the procedure take place?**

Usually the procedure is done in a special x-ray room which is equipped for these types of procedures. It may also be done in an operating theatre using mobile x-ray equipment and a portable ultrasound scanner.

**How do i prepare for percutaneous nephrostomy?**

You will be admitted as an in-patient to hospital. You will be asked not to eat for 4 hours prior to the procedure. You will be given an antibiotic usually through a small tube called a venflon in the back of your hand or arm. You will be asked to change into a hospital gown. You will be asked questions by the nursing staff regarding allergies other medical conditions for which you may need treatment during your time in the x-ray department such as asthma. If you are allergic to x-ray dye you must inform the doctor / nurses before the procedure.

**What happens during the percutaneous nephrostomy?**

You will be asked to lie on the x-ray table either flat on your stomach or with one side raised. Monitoring equipment will be placed on your chest arm and finger. You will be given oxygen usually through small tubing placed by your nose. You will be given sedation and painkillers through the venflon.

The Radiologist and the doctor or nurse assisting will wear a theatre gown and operating gloves to keep everything sterile. Your skin will be cleaned with special cleaning solution and the rest of your body will be covered with sterile drapes.

The radiologist will use ultrasound to decide the best area of approach and administer local anaesthetic into your skin at this point. A small cut will then be made to allow a fine needle to be passed into the kidney. When the needle is in a satisfactory position a fine wire is passed through it into the kidney. The needle is removed and the catheter is passed over the wire into the kidney. The wire is removed and the catheter is secured to the skin with a small stitch. The end of the catheter is attached to a bag which will collect the urine as it drains out of the catheter.

**How long will it take?**

The complexity of the procedure varies as every individual case is different. The procedure can take 20 minutes or it may on occasion take up to 90 minutes. On average you should expect to be in the x-ray department for about an hour.

**What happens afterwards?**

You will be taken back to your ward with instructions to rest for a few hours. The ward nurses will monitor your pulse and blood pressure and drainage bag to ensure you have no problems.

The drainage bag will remain attached to the catheter in your body for the time being. You will be able to carry on as normal. You will however need to ensure that you do not make any sudden movements and risk pulling on the bag. You may have to slightly adjust the way you sit or lie to ensure you do not put pressure on the bag. The bag will need to be emptied frequently to avoid it

becoming too heavy or it may be attached to a larger bag which will drain through a long tube. This bag will have a stand to support it.

**How long will the catheter stay in and what happens next?**

How long the catheter stays in will depend on your individual circumstances. This will need to be discussed with your doctor. It may only need to be in for a short time for example to allow a stone to pass. It may need to be in for longer if you need a more permanent solution for your blockage.

The removal of the catheter does not hurt.