Antegrade ureteric stent insertion
Patient information

This leaflet tells you about having antegrade ureteric stenting. It explains what is involved and what the possible risks are. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such discussions. If you have any questions about the procedure please ask the doctor who has referred you for the test or the department which is going to perform it.

What is antegrade ureteric stenting?

Urine from a normal kidney drains through a narrow muscular tube (the ureter) into the bladder. If for any reason the ureter gets blocked, the kidney can rapidly become affected, especially if there is infection present as well.

While an operation may become necessary, it is also possible to relieve the blockage initially by placing a nephrostomy tube and then by inserting a long plastic tube, called a stent, through the skin, into the bladder through the ureter. As the stent is put in through the kidney and down the ureter, this is called an antegrade procedure (as opposed to placing a stent through the bladder and up the ureter, which is a retrograde procedure). This stent allows urine to drain in the normal fashion, from the kidney into the bladder.

Why do you need antegrade ureteric stenting?

Other imaging tests have shown that the ureter has become blocked. You may have already had a percutaneous nephrostomy placed to relieve the blockage. While a nephrostomy can rarely be a permanent solution, a ureteric stent allows an internal solution without the need for a tube or drainage bag on the outside. Ureteric stents can be placed either by an antegrade or retrograde technique, but in your case the decision has been made to place it in an antegrade fashion.
Are there any risks?

Antegrade ureteric stenting is a very safe procedure, but as with any medical procedure there are some risks and complications that can arise.

The main risk is probably the failure to place the stent. This is more common if the ureter is completely blocked. If this happens, a nephrostomy will be inserted and the interventional radiologist will arrange a second visit. Antegrade stenting may be successful on a second visit but occasionally surgery is necessary for a combined approach to place the stent.

There may also be bleeding from the kidney (which can make the urine blood stained but this will usually only last 24-48 hours) but, on very rare occasions, this may require another radiological procedure or surgery to stop it.

Despite these possible complications, the procedure is normally very safe and will almost certainly result in a great improvement in your medical condition.

Who has made the decision?

The consultant in charge of your care and the interventional radiologist performing the procedure have discussed your case and feel that this is the best option.

However, you will also have the opportunity for your opinion to be considered and if, after discussion with your doctors, you no longer want the procedure, you can decide against it.

Are you required to make any special preparations?

Antegrade ureteric stenting is usually carried out as a day case procedure under local anaesthetic but occasionally an overnight stay in hospital is necessary. You will have had some blood tests performed beforehand to check that you do not have any increased risk of bleeding. You will be asked not to eat for six hours before the procedure, although you may still drink clear fluids such as water up to two hours before the procedure.

If you are taking any tablets to thin the blood, such as warfarin, you may be advised to stop them.

If you are diabetic you will be advised about any changes needed to your normal medication.

If you have any allergies or have previously had a reaction to the dye (contrast...
agent), you must tell the radiology staff before you have the test.

Who will you see?

A specially trained team 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.

Where will the procedure take place?

In a special X-ray room which is located within the diagnostic imaging department. This is similar to an operating theatre into which specialised X-ray equipment has been installed.

What happens during the procedure?

Before the examination, the interventional radiologist will explain the procedure 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.

You will be taken into the X-ray room and you will be asked to lie on the X-ray table, generally flat or nearly flat, on your stomach. You will have monitoring devices attached to your chest and finger and may be given oxygen.

There will be a nurse standing next to you who will be looking after you throughout the procedure.

The radiologist may use the ultrasound machine to help decide on the best position to use.

Antegrade ureteric stenting is performed under sterile conditions and the interventional radiologist and radiology nurse will wear sterile gowns and gloves to carry out the procedure.

Your skin near the point of insertion will be cleaned with antiseptic and you will be covered with sterile drapes. Your skin near the kidney/nephrostomy tube will be numbed with local anaesthetic. If there is a nephrostomy tube in place this will be removed over a guidewire to allow the introduction of a special plastic tube.
(catheter). The blockage will be identified and a new guidewire will be used to cross the blockage into the bladder. Once the wire has been placed through the blockage and into the bladder, the long plastic stent can be placed over the guide wire. Urine should now be able to pass down the stent and into the bladder. Sometimes a new nephrostomy drainage tube will be left in the kidney and clamped. This will be removed the next day if everything is working normally.

**Will it hurt?**

When the local anaesthetic is injected, it will sting for a short while, but this soon wears off. There will be a nurse standing next to you and looking after you and it is part of her job to make sure you are comfortable. If necessary this nurse can give you painkillers or a sedative.

During the procedure, you may be aware of some pushing as the ureteric stent is placed in the correct position. Occasionally you may feel some discomfort when the wire enters the bladder.

**How long will it take?**

Every patient is different, and it is not always easy to predict; however, expect the procedure to take about an hour.

**What happens afterwards?**

You will be taken back to the Day Case Unit. Nursing staff will carry out routine observations including pulse and blood pressure and will also check the treatment site to check that there are no problems. You will be able to eat and drink shortly after the procedure. You will generally stay in bed for a few hours, until you have recovered and are ready to go home or be transferred to the ward.

**Finally**

Some of your questions should have been answered by this leaflet, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Make sure you are satisfied that you have received enough information about the procedure.
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You can also ask a member of staff to contact PALS on your behalf.

This information can be made available in other languages and formats, including in larger text. Contact: 01737 231 958 for help.

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