Mersey and West Lancashire Teaching Hospitals NHS Trust

# Having an Antegrade Ureteric Stent insertion

## Patient 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

Your doctors have recommended that you have a procedure known an antegrade ureteric stent insertion. This information leaflet explains what the procedure involves and the possible risks and complications you may experience -your doctor will have discussed these with you. If you are still unsure about the benefits of having the procedure, please ask.

## What is antegrade ureteric stenting?

Urine from a normal kidney drains through a narrow muscular tube (the ureter) into the bladder. When, for example, a stone blocks the ureter, 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 an antegrade ureteric stenting?

Other imaging tests have shown that the ureter has become blocked. You will have already had a percutaneous nephrostomy placed to relieve the blockage. While a nephrostomy can 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.

## How do I prepare for the procedure?

You will need to be an inpatient. You will be asked to be nil by mouth from midnight but can still have critical medication with sips of water in the morning. You will have a small needle put into a vein in your arm sedative and painkillers to be given. An anti-inflammatory suppository may be given.

## 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.
All members of the team will be in scrubs during the procedure but will introduce themselves to you.

## Where will the procedure take place?

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 procedure?

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 have already had a nephrostomy performed. You will lie on the X-ray table, generally flat or nearly flat, on your stomach. You need to have a needle put into a vein in your arm, so that the interventional radiologist can give you a strong sedative and painkillers if needed. You will have monitoring devices attached to your chest and finger and may be given oxygen.

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 swabbed with antiseptic and you will be covered with sterile drapes.

Your skin near the nephrostomy tube will be numbed with local anaesthetic. The nephrostomy tube 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.

As a safety measure, a new nephrostomy drainage tube will be left in the kidney and clamped. This will be removed after a few days 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. During the procedure, you may be aware of some pushing as the ureteric stent is delivered to the correct position. You will feel some discomfort when the wire enters the bladder. Although this is uncomfortable for a short while, it means that the procedure has been successful.

## How long it will take?

Every patient is different, and it is not always easy to predict; however, expect to be in the radiology department for about an hour.

## What happens afterwards?

You will be taken back to your ward. Nursing staff will carry out routine observations including pulse and blood pressure and will also check the treatment site. You will generally stay in bed for a few hours and you will remain in hospital overnight.

## Are there any risks or complications?

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 reinserted 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 and, 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.

## Pregnancy

You are asked to contact the Radiology department if you suspect that you may be pregnant or if the appointment is more than 10 days after the start of your last period.

If you are, or think you could be, pregnant then you must tell us prior to, or on arrival for, your appointment.

## Radiation

Having an antegrade ureteric stent 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/

## 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,<br>Swelling of the skin,<br>Mild nasal congestion, sneezing, runny nose.<br>Mild high blood pressure, nausea,<br>Mild vomiting. |
| Moderate | Generalised redness<br>Marked rash,<br>Itching, and swelling of the skin,<br>Hoarseness or throat tightness,<br>Fainting<br>Swelling of face and throat. |
| Severe | Respiratory arrest<br>Cardiac arrest<br>Fluid on the lung<br>Seizures<br>Cardiogenic shock<br>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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