How can I help reduce healthcare associated infections?
Infection control is important to the well-being of our patients and for that reason we have infection control procedures in place. Keeping your hands clean is an effective way of preventing the spread of infections. We ask that you, and anyone visiting you, use the hand sanitiser available at the entrance to every ward before coming in to or after leaving the ward. In some situations hands may need to be washed at the sink using soap and water rather than using the hand sanitiser. Staff will let you know if this is the case.

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Prostate artery embolisation (PAE)

Patient information leaflet
If you require a translation or an alternative format of this leaflet please call 01296 316971
Prostate artery embolisation
The following information about prostate artery embolisation (PAE) explains what is involved and the possible risks. 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.

It is almost certain that you are having the PAE done as a pre-planned procedure, in which case you should have plenty of time to discuss the situation with your Urology Consultant and the Interventional Radiologist who will be performing the procedure, and perhaps your own GP. If you need the PAE as an emergency, then there may be less time for discussion, but nonetheless you should have had sufficient explanation before you sign the consent form.

What is prostate artery embolisation?
PAE is a non-surgical way of treating an enlarged and troublesome prostate by blocking off the arteries that feed the gland to make it shrink. It is performed by an Interventional Radiologist, rather than a Surgeon, and is an alternative to a TURP (trans urethral resection of prostate) operation.

PAE is a safe procedure, designed to improve your medical condition and avoid you having a larger operation. There are some risks and complications involved, and you do need to make certain you have discussed all available options with your doctors.

At Buckinghamshire Hospitals NHS trust, we will offer PAE to patients seen by a Urologist, and considered to be suitable for the procedure. We will offer you the procedure according to NICE guidelines, which currently specify that this should be as part of a research trial, although wider availability to patients is likely in future.
What are the results of prostate artery embolisation?
PAE was first performed in 2009, and since then over 200 men have had the procedure performed, predominantly in Portugal and Brazil. University Hospital Southampton has been offering a PAE service from April 2012 and is the first UK centre to perform this procedure. Currently there are two medium term studies of the results of prostate artery embolisation. Over 70% of men will gain symptomatic improvement after PAE with reduction in prostate volumes and an increase in urinary flow rates. Difficulty in finding difficult or small prostate arteries may lead to technical failures in around 10% of cases. In case of failure traditional TURP surgery may be offered.

Some of your questions should have been answered by this information, but remember that this is only a starting point for discussion about your treatment with the doctors looking after you. Do satisfy yourself that you have received sufficient information about the procedure, before you sign the consent form.

Why might I need prostate artery embolisation?
Other tests that you have had will have shown that you are suffering from an enlarged prostate, and that this is causing you considerable symptoms. Your Urologist and your GP should have told you about the ways of dealing with this, usually starting with medication. Previously, most severe prostatic symptoms have been treated by a TURP operation. In your case, it has been decided that embolisation is an alternative treatment worth considering.

Who has made the decision?
The doctors in charge of your case, and the Interventional Radiologist doing the prostate embolisation, will have discussed the situation, and feel that this may be the most suitable treatment. However, it is very important that you have had the opportunity for your opinion to be taken into account, and that you feel quite certain that you want the procedure to go ahead. If, after full discussion with your doctors, you do not want the PAE carried out, then you must decide against it.
Who will be doing the prostate artery embolisation?
A specially trained doctor called Interventional Radiologist. Interventional Radiologists have special expertise in using X-ray equipment, and also in interpreting the images produced. They need to look at these images while carrying out the procedure. Consequently, Interventional Radiologists are the best trained people to insert needles and fine catheters into blood vessels, through the skin, and place them correctly.

Where will the procedure take place?
Generally in the X-ray department, in a special screening room, which is adapted for specialised interventional procedures.

How do I prepare for prostate artery embolisation?
This will be done as a day case procedure. You will be asked not to eat for six hours before the procedure, and can drink clear fluids (excluding milk) up to two hours before the procedure. You may receive a sedative to relieve anxiety. You will be asked to put on a hospital gown. As the procedure is generally carried out using the big artery in the groin, you may be asked to shave the skin around this area.

Are there any risks or complications?
Prostate artery embolisation is a new procedure. Research published so far shows it to be safe, but there are some risks and complications that can arise, as with any medical treatment or procedure.

There may occasionally be a small bruise, called a haematoma, around the site where the needle has been inserted, and this is quite normal. If this becomes a large bruise, then there is the risk of it getting infected, and this would then require treatment with antibiotics.

Most patients feel some pain afterwards; this is usually mild. Very occasionally a urinary catheter may need to be placed.

What else may happen after this procedure?
Some patients may feel very tired for up to a week following the procedure, though some people feel fit enough to return to work three days later. However, patients are advised to take at least one week off work following PAE.
As the dye, or contrast medium, passes around your body, you may get a warm feeling, which some people find a little unpleasant. However, this soon passes and should not concern you.

**How long will it take?**
Every patient’s situation is different, and it is not always easy to predict how complex or straightforward the procedure will be. Some prostate artery embolisations do not take long, perhaps an hour. Other embolisations may be more involved, and take rather longer, perhaps up to two hours.

**What happens afterwards?**
You will be taken back to the Recovery area on a trolley. Nurses in the Recovery area will carry out routine observations, such as taking your pulse and blood pressure, to ensure there are no untoward effects. They will also look at the skin entry point to ensure there is no bleeding from it. You will generally stay on a trolley for 2-4 hours until you have recovered then allowed home. Once you are home, you should rest for three or four days. You will be prescribed pain relief if required, other drugs and an explanation of their usage will be given prior to your discharge.

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

**What actually happens during prostate artery embolisation?**
You will lie on the X-ray table, generally flat on your back. You need to have a needle put into a vein in your arm, so that the Radiologist can give you a sedative and pain relief. Once in place, this will not cause any pain. You may also have a monitoring device attached to your chest and finger, and may be given oxygen through small tubes in your nose. The Interventional Radiologist will keep everything as sterile as possible, and will wear a theatre gown and operating gloves. The skin near the point of insertion, probably the groin, will be swabbed with antiseptic, and then most of the rest of your body covered with a theatre towel.
The skin and deeper tissues over the artery in the
groin will be anaesthetised with local anaesthetic, and
then a needle will be inserted into this artery. Once the
Interventional Radiologist is satisfied that this is
correctly positioned, a guide wire is placed through the
needle, and into this artery. Then the needle is
withdrawn allowing a fine, plastic tube, called a
catheter, to be placed over the wire and into this artery.

The Interventional Radiologist will use the X-ray
equipment to ensure the catheter and wire are moved
into the correct position, into the other arteries which
are feeding the prostate. These arteries are quite small
and rather variable. A special X-ray dye, called contrast
medium, is injected down the catheter into these
prostate arteries, and this may give you a hot feeling in
the pelvis. Once the prostate blood supply has been
identified, fluid containing thousands of tiny particles is
injected through the catheter into these small arteries
which nourish the prostate. This silts up these small
blood vessels and blocks them so that the prostate is
starved of its blood supply.

Both the right and the left prostatic arteries need to
be blocked in this way. It can often be done from the
right groin, but sometimes it may be difficult to block
the branches of the right prostatic artery from the
right groin, and so a needle and catheter needs to be
inserted into the left groin as well. At the end of the
procedure, the catheter is withdrawn and the
Interventional Radiologist then presses firmly on the
skin entry point for several minutes to prevent any
bleeding or a closure device may be used.

Will it hurt?
When the local anaesthetic is injected, it will sting to
start with, but this soon passes, and the skin and
deeper tissues should then feel numb. The
procedure itself may become painful. However, there
will be a nurse, or another member of staff, beside
you to look-after you. If the procedure becomes too
painful for you, they will arrange for you to have
some pain relief through the needle in your arm.