Service: Imaging

Prostate Artery Embolisation (PAE)

Exceptional healthcare, personally delivered
Ask 3 Questions

The team delivering your healthcare want to encourage you to become as involved as possible in making decisions about your health and proposed treatment. By telling us what is important to you and by asking questions you can help with this. To make a shared decision with your specialist about your treatment it is important that you read and understand the information in this leaflet and then ask questions. Thinking about the three questions below may help you decide how you would like the medical team to manage your lower urinary tract symptoms caused by benign enlargement of prostate gland.

What are my options?

What are the possible benefits and risks of those options?

What help do I need to make my decision?

We have provided links at the end of the leaflet to other resources in case you want to understand more about your condition before deciding on your preferred treatment.

Please make a note of your questions as you read through this leaflet. Ask our team for the answers, this will help you to get the treatment that is best for you.
This leaflet provides information for patients considering Prostate Artery Embolisation (PAE) for the treatment of their lower urinary tract symptoms.

What is Prostate Artery Embolisation (PAE)?

The prostate gland is located under the urinary bladder and wraps around the water pipe (urethra). Enlargement of the prostate gland can lead to a blockage of the flow of urine. This can lead to various symptoms, including reduced urine stream and frequent need to urinate during the night.

Prostate artery embolisation is a minimally invasive, non-surgical new treatment option for prostate enlargement. PAE blocks off the blood flow to the small arteries supplying the prostate gland making the gland shrink and allowing a better flow of urine. This is achieved with an injection of small particles into these arteries. PAE can also be used for controlling bleeding from the prostate gland.

Who made this decision?

The decision was made by your urologist and an interventional radiologist who is going to perform the procedure. Interventional radiologists are doctors specially trained to perform minimally invasive treatments of various diseases with guidance of an x-ray machine, avoiding the need for open surgery. This includes inserting and navigating special catheters inside blood vessels.

In addition to the standard tests for prostate enlargement, you will need to have a special CT scan (CT angiogram) to help us visualise the arteries in your pelvis. This will help the radiologist to decide if the anatomy of your arteries is suitable for the treatment. If tests have shown that you are suffering from an
enlarged prostate gland you probably have already been told about the more traditional treatment options, including a TURP (trans urethral resection of prostate) operation and medication by your urologist or GP.

In your case, a decision was made that you are likely to benefit from an alternative non-surgical treatment option: prostate artery embolisation.

**What happens before the procedure?**

- You will need to have a blood test a few days before the procedure to check your kidney function, that you are not at increased risk of bleeding and that it will be safe to proceed. This may be arranged to take place at your GP surgery.

- You can continue taking your normal medication. If you are on any medication which thins the blood (e.g. aspirin, clopidogrel, warfarin, rivaroxaban, dabigatran, apixaban) we ask you to call the interventional radiology department using the number on your appointment letter as we may need to adjust your medication before undergoing this procedure.

**On the day of the procedure**

- You should not eat anything from 4 hours before your procedure but you may continue to drink water.

- You will arrive at the Imaging Department and be accompanied into our day case area.

- You may take your normal medication unless instructed otherwise.
Please inform us if you have any allergies.

A radiologist will discuss the procedure with you. You will have an opportunity to ask questions about the procedure and your treatment. If you choose to have the procedure you will need to sign a consent form.

You will be asked to change into a hospital gown and a small plastic tube (cannula) may be put into a vein in your arm to allow us to administer medications or intravenous fluids during the procedure.

Once all the checks have been performed and consent signed, you will be taken to the angiography suite on the trolley. There will be a nurse, radiographer and a radiologist with you throughout the procedure.

**During the procedure**

- You will need to lie on your back on an x-ray table for the duration of the procedure.

- The skin near the groin will be cleaned with an antiseptic solution and covered with sterile drapes.

- Using an ultrasound machine, the radiologist will then inject local anaesthetic into the skin and deeper tissues over the groin artery. This will briefly sting and then go numb. Most people will feel a pushing sensation.
A small tube (catheter) is inserted into the artery and navigated inside your blood vessels with the help of the x-ray machine to select the arteries responsible for the blood supply of the prostate gland. An x-ray dye will be injected into your arteries several times during the procedure to aid the navigation of the catheter. During these injections you may be asked to hold your breath and keep very still. The injection of the x-ray dye can cause a hot sensation in your pelvic area which is normal and temporary.

Both the left and right prostate arteries can usually be reached with accessing only one groin artery but sometimes we may need to use the artery in your other groin.

Once the catheter is in the correct position, tiny particles are slowly injected into the prostate gland. When the injection into both left and right prostate arteries is complete, the catheter is removed from the artery and pressure by hand or a special stitch is applied at the puncture site to prevent bleeding. You will be asked to remain still for another few hours after the procedure.

Insertion of a urinary catheter may be necessary for this procedure. This is usually removed after the procedure before discharge.

The procedure itself usually takes around 2 hours.
What to expect after the procedure

- You will be taken back to the radiology day case unit, so that nursing staff may monitor you closely.
- If you are in pain tell the nursing staff so you can be given appropriate painkillers.
- You will be required to stay in our day case unit for about 4 hours. Occasionally one night stay in the hospital might become necessary.
- There may be a small bruise in the groin around the puncture site but this is quite normal.
- You will have antibiotics prescribed to be taken for 5-7 days following the procedure.
- You should be able to resume most normal daily activities within 24-48 hours. However, we recommend avoiding driving and all strenuous activities for 48 hours.
- The prostate gland should begin to shrink over the next few weeks and over 70% of men will notice an improvement in their symptoms after PAE.
- You will be reviewed at a follow up appointment in 3 months’ time.
- If you had a long-term bladder catheter before the procedure, recent studies have shown the majority of patients can have their catheters removed after 7-10 days.
What are the risks of this treatment?

Prostate artery embolisation is a relatively new procedure for treatment of prostate enlargement. The current evidence from research data has been reviewed by the National Institute for Health and Care Excellence (NICE) and clearly shows that the procedure is safe and an effective treatment option. However, as with any other medical procedures complications may arise.

- There is a minor risk of bleeding or bruising at the groin or injury to the arteries.
- In up to 10% of cases (1 in 10 people) the prostate arteries are too small or diseased and it will not be possible to safely access them with the catheter, meaning we are unable to treat the arteries.
- You may experience some discomfort in the lower abdomen and have some discomfort on urinating but this normally resolves after 10 days.
- The prostate can become more swollen immediately after the procedure which can make passing urine temporarily more difficult. On rare occasions, a urinary catheter may be necessary until the swelling settles down.
- There is a small possibility of experiencing pain when passing urine or having blood in the urine after the procedure but this should settle down by itself.
- Blocking arterial flow to the prostate makes the gland slightly more prone to infection. To avoid this, antibiotics will be prescribed for you to take when you arrive at the department and following the procedure.
There is a small risk of blocking blood vessels to other organs inside your pelvis (including urinary bladder, bowel or genitals). This could result in reduced blood supply to the affected organ and could potentially be a serious complication, however in most cases it settles down by itself. A special CT scan of your blood vessels will be used before and during the procedure to reduce this risk to a minimum.

Some patients may feel tired for up to a week following the procedure. We advise patients to take at least one week off work following PAE.

When to seek help

Please contact us on the phone number on your appointment letter if you experience:

- New bleeding in your urine or bowel motions.
- Pain that is not controlled with painkillers.

Please contact us or go to the nearest emergency department in case of:

- New leg symptoms such as pain or changes in colour.
- Increasing swelling or bleeding from your groin.

To contact us, please call the interventional radiology secretaries between Monday-Friday 9:00am-5:00pm on 0117 4149110.

Out of hours please contact the on call urology speciality registrar via North Bristol NHS Trust switchboard (01179505050)
References


If you or the individual you are caring for need support reading this leaflet please ask a member of staff for advice.

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