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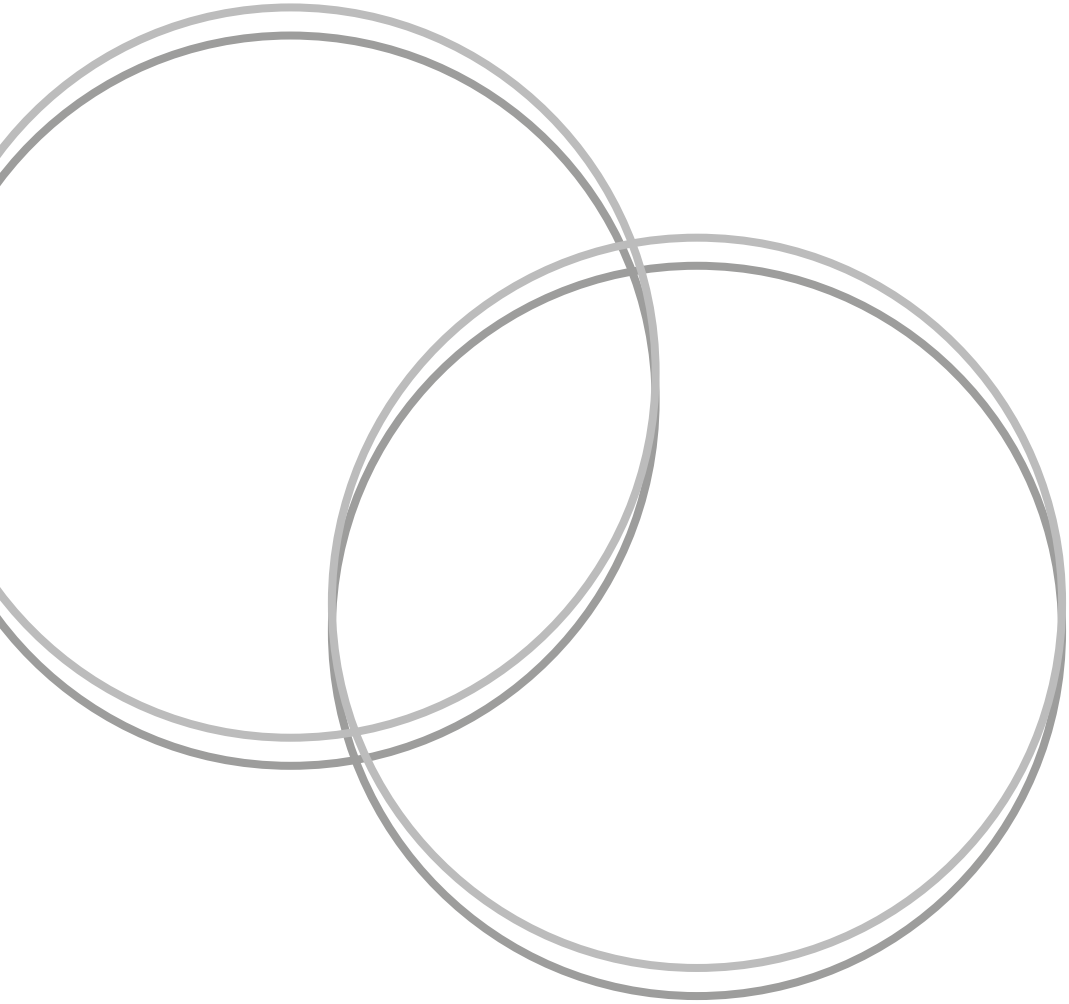
Prostate Artery Embolisation (PAE)

Information for patients



This leaflet will give you more information about the procedure called 'Prostate Artery Embolisation' (PAE).
It explains the procedure, its intended benefits and possible risks. It will help you when you come to discuss the procedure with your doctor. It is important that you have enough information to decide whether or not to proceed with PAE.

What is Prostate Artery Embolisation (PAE)?

An enlarged prostate is a common problem in men as they get older and can cause troublesome urinary symptoms. These include passing urine very frequently, passing urine at night, passing only small amounts and having a poor stream. PAE involves blocking off the prostate arteries, thereby starving the prostate of its nutrient supply and making it shrink. This is typically performed by a specialist called an Interventional Radiologist, a doctor who specialises in performing minimally invasive procedures under X-Ray guidance.

Traditionally, the treatment options for an enlarged prostate have included medication for mild symptoms, as well as surgical procedures such as TURP (transurethral resection of the prostate) or HoLEP (holmium laser enucleation of the prostate) for more troublesome symptoms. These procedures typically involve a general anaesthetic and surgical removal of part of the prostate gland.

There are now also many minimally invasive procedures available to treat an enlarged prostate. Not everyone is suited to every treatment and which options are best for you will depend on the nature of your prostate enlargement, other health issues and your own preferences. Your Urologist will have discussed these options with you, and has referred you for a minimally invasive procedure called Prostate Artery Embolisation (PAE).

Some of the advantages of PAE are that it does not require a general anaesthetic or urinary catheter and there is a very low risk of sexual dysfunction. It is also usually performed as a day case procedure and is well suited to very large prostates.

Disadvantages of PAE include a potentially long procedure time (1-2 hours) and approximately 1 in 4 patients have recurrence of symptoms after 5 years - although PAE can be repeated and does not stop you from having any of the other treatments available for an enlarged prostate.

What happens if you have been referred for PAE?

You will receive a clinic appointment with an Interventional Radiologist. They will discuss the procedure in more detail, and answer any questions you may have. This leaflet will help form a starting point for your discussion.

You will have a CT scan to look at the prostate and arteries in detail to assess the suitability for PAE and help plan the procedure.

If you take blood thinning medication (such as warfarin or apixaban), please let your doctor know as this may need to be stopped temporarily prior to the procedure.

If you have any allergies, please let your doctor know.

What happens before the procedure?

On the day of the procedure, you will be admitted to the **Radiology Day Case Unit at Churchill Hospital**. You will be asked to change into a hospital gown.

You should not eat for 4 hours prior to the procedure, and not drink fluids for 2 hours prior to the procedure. If you have diabetes and take insulin, you will be advised what to do. If you take metformin, you should have your last dose the day before the procedure and not take it again until 48 hours after the procedure.

A nurse will place a cannula (small needle) into your arm to administer medication. All patients will routinely receive antibiotics prior to the procedure to prevent infection, and a pain relief suppository to reduce pain. If you feel anxious about having the procedure done, you may receive light sedation.

What does the procedure involve?

The procedure will take place in the Angiography Suite, which is a specialist room with X-ray equipment. All the equipment and instruments will be sterile to prevent infection. The Interventional Radiologist will wear sterile surgical gloves and gowns. A nurse will be present to monitor you and administer medication if required.

You will be asked to lie flat on the X-ray table. You will be covered with a sterile drape. After cleaning the area with an antiseptic, local anaesthetic will be injected into the skin at the groin or wrist. This will make the area go numb, so that you cannot feel any pain while the procedure is carried out. Sometimes the local anaesthetic can sting initially, but this should soon pass. A small tube is then inserted into the artery in the groin or wrist.

The Interventional Radiologist will use the X-ray equipment to guide the tube into the arteries which are feeding the prostate. X-ray contrast dye will be injected through the tube. This helps to show the prostate arteries on the X-ray screen. The X-ray contrast dye may give you a hot feeling in the pelvis. The X-ray machine will rotate around the table to produce images similar to a CT scan. This helps to show if there are any abnormal arterial connections present.

Once the prostate arteries have been identified, the Interventional Radiologist will inject tiny particles or glue into them to block them (embolisation). X-ray pictures will be taken to see whether this has worked and whether this needs to be repeated. Both the right and the left prostate arteries need to be embolised in this way.

Once the Interventional Radiologist is happy with the result, they will finish the procedure and either place a closure device (such as a plug) in the groin artery or will apply pressure for at around 10 minutes to prevent bleeding.

How long does it take?

The procedure takes in the **region of 1 – 2 hours** depending on the complexity of your arteries.

What happens after the procedure?

You will be taken back to the Day Case Unit. You will need to lie in bed for a period of time which may be from 1-4 hours depending on the method used to close the artery in your groin or wrist. It is a good idea to bring something to read or something to listen to with headphones. A nurse will monitor your blood pressure and heart rate and will check the puncture site for bleeding. You should be able to go home on the same day. You will be given antibiotic tablets and pain relief suppositories to take home with you.

For the first 24 hours after your procedure, you should drink plenty of fluids and rest. You should not operate machinery for 24 hours. You should not undertake strenuous activity, lifting or driving until the puncture site in the groin feels completely comfortable (about 7 days). **You should report any concerns to either your GP, the Radiology Department, or your nearest Accident and Emergency department.**

It is not unusual to experience some aching in the region of the prostate or on passing urine for a few days after the procedure, but this is usually self limiting and settles with simple pain relief.

You will receive a clinic appointment with an Interventional Radiologist 3 months following your procedure to see how you are getting on.

What should you do if the puncture site starts to bleed?

In the unlikely event that this happens:

- **Stop what you are doing.**
- **Lie down.**
- **Put your fingers on the puncture site and press very firmly.**
- **Call 999 and ask for an ambulance.**
- **Say that you had a PAE and the puncture site is bleeding.**

Pressure needs to be **continually applied**, by you or someone else, until help arrives. You will be given information about this before you leave the hospital.

What are the risks of having PAE?

PAE is a safe procedure, however, as with any medical treatment, there are some complications that you need to be aware of.

Bruising at the puncture site may occur, and this should disappear in a few days. Infrequently, bleeding from the puncture site may occur (please see above section). Mild discomfort or pain in the pelvis may occur, together with flu-like symptoms, and this is normally managed with paracetamol and pain relief suppositories. Very occasionally, a urinary catheter may be needed for retention. Very rarely, damage to the bladder, rectum or penis has been reported following PAE. These risks are small and will be discussed at the time of your consent for treatment.

What is the success rate of PAE?

The published studies on PAE suggest that more than 7 in 10 men will gain symptomatic relief after PAE due to a reduction in the size of the prostate gland and an increase in urine flow rates. There is a failure rate of around 1 in 20 cases due to difficulty in finding tortuous or small prostate arteries. In case of failure, you can be referred back to your Urologist to discuss traditional surgical procedures.

How to contact us

If you have any questions or concerns, you can telephone the Radiology Department nursing team on:

Tel: **01865 220 800**

Your feedback

If you wish to enquire, comment or give feedback about your treatment, please:

Email: interventionalradiologyfeedback@ouh.nhs.uk

Tel: **01865 220 804**

Useful information

Royal College of Radiologists
www.rcr.ac.uk

British Society of Interventional Radiology
www.bsir.org

Cardiovascular and Interventional Radiology Society of Europe
www.cirse.org

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

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