

## Radiology Department

# Prostate Artery Embolisation (PAE)

You have been referred by your Urologist for a specialist procedure called Prostate Artery Embolisation (PAE), in view of your significant lower urinary tract symptoms. This may include passing urine very frequently, passing urine a lot at night, passing only small volumes and having a poor flow/stream. Often, these symptoms are due to gradual enlargement of the prostate gland which sits at the bottom of the bladder in your pelvis.

These symptoms are increasingly common in men as they get older and can be troublesome. Prostate enlargement is usually benign (non-cancerous) and this will be discussed with you by your Urologist.

### What is Prostate Artery Embolisation?

This is a procedure in which, under X-ray control, small beads (particles) are injected directly into the arteries supplying your enlarged prostate gland with the intention of deliberately reducing or blocking off the blood supply to your prostate.

An Interventional Radiologist, who is a specialist in X-ray techniques, will perform the procedure which usually takes about an hour, sometimes longer in difficult cases.

The procedure involves feeding a wire into the artery (blood vessel) in your groin through a very small hole which is made after the area has been numbed. From here, tubes and wires are passed into the arteries going into the pelvis but you should not feel these inside you. This route is used to identify which arteries are supplying the prostate. You will have had a CT scan beforehand to help the doctor identify all the relevant small arteries. We may repeat a limited CT scan during the PAE procedure as a crosscheck.

If it is safe and possible to do so, the doctor will then inject a small volume of tiny beads into the prostate arteries themselves whilst avoiding passing the beads into any other location. Reducing the blood supply to the prostate in this manner is called 'embolisation' and should allow the gland to shrink in time since it will not be receiving as much nutrient blood. As the prostate shrinks, your symptoms should improve.

### Who is suitable for this procedure?

Unfortunately, not everyone with an enlarged prostate can have this procedure. Patients who have a urinary catheter in place, bladder stones, poor kidney function, heavy arterial disease, certain neurological conditions or confirmed prostate cancer are not suitable for PAE.

It is particularly suitable in men aged between 50-75 who have moderate/severe lower urinary tract symptoms with particularly large prostate glands, poor urinary flow rate and in those men who have tried drug treatment with little or no improvement.



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Other treatment options include surgery Transurethral Resection of the Prostate (TURP) which will have been discussed with your Urologist

### **Will I have a general anaesthetic?**

No, as this is not necessary. You will have a local anaesthetic injection to make the area where the needle is placed in the groin feel numb. Most men tolerate the procedure very well without the need for strong pain killers, anti-nausea drugs or sedation.

### **What are the benefits of PAE?**

We know from studies around the world that PAE can be successful in making your prostate smaller, which may improve your symptoms and quality of life relieving urinary incontinence, ejaculatory disorders or erectile dysfunction all of which can be risks of surgical treatment (TURP). Some patients however are better advised to have TURP.

Again, this should be discussed with your Urologist. The PAE procedure has a low complication rate and few side effects.

### **Can I be cured?**

Benign prostatic enlargement is not really 'cured' completely by PAE, but your symptoms can usually be improved to acceptable levels. If appropriate in a minority of cases, the PAE treatment can be repeated. If PAE does not work for you, surgical treatment remains available and possible in the future.

### **What are the risks of PAE?**

#### **Common risks**

The most common side effect of this treatment is mild pain in the pelvis because of the embolisation. Simple painkillers for a few hours after treatment are usually sufficient to ease this. Some patients experience transient blood in their urine which usually disappears after a day or two.

A bruise in your leg is not uncommon for a week or two after the procedure.

#### **Uncommon/rare risks**

There is a small risk of bleeding from the needle site in your groin. This is usually controlled with direct pressure on the spot for a few minutes.

Very rarely, the bleeding is more serious and other treatment is required. There is a very small risk of damage to other arteries in your body by movement of the tube (catheter) inside them.

Since the procedure uses X-ray dye (contrast medium) in the arteries, there is a very small risk of making your kidney function worse or having a contrast reaction. Patients with kidney problems will not be put forward for PAE.

There is a small risk of infection at the needle site; infection in the bladder, urine or prostate itself is rare but possible; all these can be treated with antibiotics.

Very rarely you may experience symptoms similar to flu. Feeling a bit washed out and lethargic after the treatment. This is because your body is coping with the reduced blood

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flow to the prostate. Regular doses of paracetamol are helpful; however, if you are worried about your symptoms, please do not hesitate to get in touch with the team at UHCW via the phone numbers at the end of this information.

In contrast to surgical treatment (TURP), we know from studies around the world that the instance of ejaculatory problems or erectile dysfunction are very rare following PAE.

### **If I agree to this treatment what happens next?**

You will be given a date to come into hospital. We will discuss the procedure with you and ask you to sign a consent form. You can withdraw your consent at any time.

Further safety checks need to be done including routine blood tests and 2 scans:

- A CT scan to act as a 'roadmap' of the arteries to help guide the PAE procedure;
- A MRI scan of the prostate gland to act as a baseline and compare to another MRI scan 3-6 months following the procedure.

This will help us to assess how much difference the treatment has made to the prostate.

### **How long will I stay in hospital?**

You will need to have this treatment at UHCW, your local specialist centre.

It will be necessary for you to remain in bed for a few hours immediately after the procedure to help the needle site in the groin to heal.

The amount of time spent in hospital varies, but usually people stay in for one night though it may be longer if there are any clinical concerns. In straightforward treatments, many patients can go home later the same day.

### **What happens after I go home?**

You should feel well when you go home. If you still have some discomfort from your treatment, then continue to take simple painkillers such as paracetamol.

After six weeks, we will see you again in the Urology clinic. If you are not given this appointment before going home, please ring Mr Sriram's secretary or other team members contact numbers are at the end of this information.

We will arrange the follow up MRI scan.

When we see you in clinic, we will be able to discuss your progress with you and monitor your symptoms.

### **Further questions**

This leaflet covers most of the usual questions people ask us, however, If you have any further queries please ask at your Urology clinic appointment. Alternatively you can contact one of the medical secretaries on the contact details below.

### **Clinical Contacts:**

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