

Department of Radiology

Renal tumour ablation

Information for patients



What is ablation?

Your doctor has recommended that you have ablation treatment for your renal (kidney) tumour. Ablation is a technique that destroys tissue through heating. In order to produce the heat a special needle is placed into the tumour, using images to guide where it is positioned (such as CT scanning or ultrasound). The tip of the needle contains a small antenna that produces microwaves, so this type of ablation is called 'microwave ablation.' The microwaves heat up the tumour tissue to destroy it.

The heat only travels a small distance within your body (about a centimetre from the needle). The majority of your normal kidney tissue will not be affected.

Microwave ablation has been used in Oxford since May 2010. It has proved to be effective for treating small renal tumours.

What are the benefits of ablation?

Ablation can be effective in treating a tumour that would be unsuitable for surgical treatment. The procedure can also be repeated, if necessary, to completely destroy the tumour. You will be able to return to your normal activities within a few days of the ablation treatment.

How is it done?

Ablation is performed in the X-ray department or whilst you are in a CT scanner. It almost always carried out under a general anaesthetic, which means you would be unconscious throughout the procedure.

You will have a narrow tube (called a cannula) placed into a vein in your arm. This will be used to give you antibiotics, to help prevent infection. It will also be used to give you a special liquid, called contrast dye, which helps to show up your kidney on the ultrasound or CT scan.

The consultant radiologist will find the abnormality in your kidney. They will use images to guide them, either from the ultrasound machine or CT scanner.

The ablation needle will be guided into the correct area of your kidney and then heated to destroy the tumour. The needle will then be removed.

The needle may need to be inserted more than once during the same procedure, so that we can treat the whole tumour within your kidney.

Who will perform the procedure?

Ablation is performed by radiologists who have particular expertise in guiding needles and catheters using imaging (such as CT scans or ultrasound).

These imaging techniques are used to monitor the procedure and also to follow-up the results. Our consultant radiologists also have a particular interest in cancer treatments. They work as part of a team with other doctors involved in your care.

Are there any risks?

Unfortunately there are always risks involved when undergoing any procedure. These risks will have been made as small as possible, as we will make sure that you have the type of kidney tumour that is suitable for the ablation and there are no other problems that would make it more risky. You will also have been seen by one of the doctors looking after you, who will have recommended that you have the ablation.

The main risks are:

- post ablation syndrome, which occurs in about 1 in 4 people. This is a flu-like illness that develops 3-5 days after treatment. This should get better by itself but paracetamol may help.
- bleeding caused by the needle being inserted into the kidney
- accidental damage to the ureter (the tube that carries urine from your kidney to your bladder). This is more likely if it is close to the renal tumour being treated.
- kidney infection, which develops after the treatment
- damage to the bowel as the needle is inserted into the kidney or as it heats up.

The radiologist who discusses the procedure with you will discuss these risks with you in more detail. They will also let you know if there are any more specific risks that might apply to you.

The risk of a serious complication from ablation is 2-3 people in 100 (2-3%) and the risk of death is less than 1 in 200 (less than 0.5%). However, we believe that in general the likelihood of these risks is actually less than this.

Thousands of ablations have been performed world-wide and we have performed many hundreds in the lungs, liver and kidneys. For kidney ablations, the likelihood is that tumour will be completely destroyed in a single treatment.

What are the alternatives?

Ablation may be combined with other methods of treating kidney tumours. Your doctor will discuss the best course of treatment with you.

Pre-operative Assessment

We will ask you to come for an appointment at the Pre-operative Assessment clinic. At this appointment we will ask you about your medical history and carry out any necessary clinical examinations and investigations, to make sure you are well enough for the procedure to go ahead. You may also need to have an ECG (electrocardiogram), to measure the activity in your heart, and a blood test.

The nurse will explain the procedure to you and give you instructions about eating and drinking before your procedure.

We will also give you a separate leaflet which tells you about eating and drinking before your procedure, what to bring with you, the admission process, and what will happen on the day.

The nurse will ask you about any medicines or tablets you are taking, including herbal remedies and medicines bought over the counter. It helps us if you bring details of all your medicines to this appointment. We will tell you whether you need to stop taking any of your medicines before your procedure. When you come into hospital please bring all your medicines with you in the green bag, which we will give you.

This appointment is a good opportunity for you to ask us any questions that you still may have about the procedure.

Consent

We will need you to sign a consent form to confirm you are happy for the procedure to go ahead. We will give you a copy of the consent form at your Pre-operative Assessment appointment. Please read this carefully.

If you have any further questions, please speak to a member of the surgical team on the day of your procedure, before signing the consent form.

Admission and the day of your procedure

The **consultant radiologist** will see you to talk to you about your procedure and to answer any remaining questions you may have. When you feel you have understood all the information, including the benefits and the risk of complications, the radiologist will ask you to sign the consent form to give your agreement for the procedure to go ahead, if you have not already done so.

The **anaesthetist** will also see you before the procedure to talk to you about the anaesthetic. If you have any questions or concerns, this is the time to ask.

How long will the procedure take?

This can vary, but the whole procedure usually takes 60 to 90 minutes. It may take longer, depending on how easy the tumour is to treat.

You will need to stay in hospital overnight after the procedure, and possibly longer, depending on how well you recover.

What happens after the treatment?

When you wake from the anaesthetic, you will be in the recovery area. The nurse will regularly check your heart rate and blood pressure. Once you are comfortable and your blood pressure is stable, you will be taken to the ward for an overnight stay.

On the ward you will gradually be allowed to drink water. If you are able to tolerate good amounts and don't feel sick, then you will be able to have a hot drink and something light to eat.

You will still have the intravenous drip in your arm, but this will be removed before you go home. Your nurse will offer you pain relief to help with any discomfort. By the next day, you are likely to only need painkillers that are no stronger than paracetamol. When you get out of bed for the first time a nurse will need to be with you in case you feel light headed or dizzy.

Before you go home you will have a CT scan, to check on the area of your kidney that was treated.

What happens when I go home?

You are likely to be able to go home the day after your procedure. Before you go home we will discuss your follow-up treatment with you. You should expect to be off work for 1 week after the treatment. Please let us know if you will need a sick note for your employer.

We will write to your GP to give them the results of the CT scan. You will receive follow-up CT scan appointments every three months for the first year after the procedure, to check for new tumours. You will also be seen regularly by the hospital doctor who requested the ablation.

Signs to look out for

If you experience any of the following symptoms after you go home please contact your GP:

- excessive abdominal swelling
- pain that is not controlled by regular painkillers (e.g. paracetamol)
- increasing fever (temperature) or pain 1-2 weeks after the procedure.

How to contact us

Thermal Ablation Administrator

Tel: 01865 235 746

(8.30am to 5.00pm, Monday to Friday)

If you have a specific requirement, need an interpreter, a document in Easy Read, another language, large print, Braille or audio version, please call **01865 221 473** or email **PALSJR@ouh.nhs.uk**

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February 2016
Review: February 2019
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