Oxford University Hospitals
NHS Foundation Trust

# Renal Tumour Ablation

## Information for patients


Radiology Department

# Patient information leaflet: Renal Tumour Ablation

This leaflet contains important information about your scan and liver tumour ablation.

Please read all sections of the leaflet carefully and follow the important instructions.

This leaflet explains what happens during a computerised tomography (CT) scan and renal tumour ablation. It tells you what is involved and about the risks and benefits of having the tests.

For people with childbearing capability between the ages of 12-55 years it is important to ensure that you are not pregnant. If there is any possibility that you might be pregnant, please let us know immediately.

If you weigh more than 203kg, or 32 stone, please contact us using the telephone number at the top of your appointment letter as soon as possible.

# What is a CT scan?

This is a type of scan which uses X-rays linked to a sophisticated computer to create detailed pictures of your body in 'slice sections' or 'cross sections'.

The CT scanner is an open ring-like structure, which looks a bit like a giant doughnut, rather than a tunnel as everybody expects!

**A more detailed explanation of the scanning procedure is given on pages 8-10..**

# What is Ablation?

Your doctor has recommended that you have ablation treatment for your renal tumour. Ablation is a technique that destroys tissue through heating or freezing. In both cases a special needle is placed into the tumour, using images to guide where it is positioned (such as ultrasound or CT scanning). The heating treatment relies on microwave produced at the tip of the needle, so this type of ablation is called 'microwave ablation.' The microwaves heat up the tumour tissue to destroy it. The freezing treatment is called 'cryoablation'. In this case, a machine pumps argon gas through the needle and this makes the tip very cold, around -100$^{o}$C. Usually, this treatment requires a number of needles to be placed in the tumour.

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

Microwave ablation has been used in Oxford since May 2010 and cryoablation since 2015. Both have proved to be effective for treating small renal tumours.

# Can I take my prescribed medicines as usual?

We will have discussed with you about any medications at your pre-operative assessment and will have advised you during the assessment if there was a need to stop some medications.

### Caution

Keep all tablets and medicines out of reach of children.
Never give any medicines prescribed for you to anyone else.

# What clothing should I wear?

You may wish to wear loose clothing that can be removed easily. You will be asked to change into a hospital gown.

# Can I bring a relative or friend?

Yes, but they will not be able to go with you into the scan room. We are unable to care for young children whilst you are having your scan.

### Interpreter

If you require an interpreter, please let us know.

Please be aware that it is Trust policy that family, friends and other companions cannot act as an interpreter for you.

# What are the benefits of Ablation?

Ablation can be effective in treating a renal tumour that would be unsuitable for surgical treatment. The procedure can be repeated. You can resume your normal activities within a few days.

# Are there any risks?

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

### The risks from the procedure are:

- A post ablation syndrome occurs in about 1 in 4 patients. This is a flu-like illness that happens 3-5 days after treatment. This should get better by itself, but paracetamol may help.
- Bleeding caused by the needle inserted into the kidney.
- Kidney infection after the treatment.
- 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.
- 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 in more detail. They will also let you know if there are any more specific risks that apply to you. We quote the risk of a serious complication from ablation as 2-3 patients in 100 (2-3%) and the risk of death as less than 1 in 200 (less than 0.5%). We believe that in general the likelihood of these risks is 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.

## Exposure to radiation

During CT scans you will be exposed to X-ray radiation. We are all exposed to background radiation from the ground, building materials and the air, every day of our lives, this is normal and natural. Medical X-rays give an additional dose and the amount of radiation you're exposed to during a CT scan varies, depending on how much of your body is scanned.

Generally, the amount of radiation you're exposed to during each scan will range from the equivalent of a few months to a few years of exposure to natural radiation from the environment. It's thought exposure to radiation during CT scans could slightly increase your chances of developing cancer many years later, although this risk is thought to be very small (less than 1 in 1,000).

The benefits and risks of having a CT scan will always be weighed up by your doctor and the specialists in Radiology before your CT scan, to ensure that this is the best procedure for you to have to diagnose (or treat) your condition. The Radiographers always ensure that the radiation dose is kept as low as possible and CT scanners are designed to make sure you're not exposed to unnecessarily high levels.

**For more information, read GOV.UK patient dose information.**

Visit: **www.gov.uk/government/publications/medical-radiation-patient-doses/patient-dose-information-guidance**

### Contrast Injection

The contrast injection contains iodine, which can cause an allergic reaction in a few people. You should tell the radiographers or radiologists who are carrying out the procedure if you have had an allergic reaction to iodine or contrast dye in the past, or if you have any other allergies. Very rarely the dye may cause some kidney damage in people who already have kidney problems. We will ask you to complete a questionnaire on the day of the examination before the procedure takes place, to assess the risks of giving you the contrast dye. We may also take a small sample of your blood to test your kidney function.

There is a small chance that the contrast injection can leak outside the vein and cause temporary swelling and discomfort in the arm, this does not happen very often. In the unlikely event of this happening, we will provide you with further instructions and advice.

## 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. We will also give you a copy of the consent form which you need to read carefully. After reading the consent form, please speak to a member of the surgical team on the day of your procedure before signing the consent form.**

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.

# Admission and the day of your procedure

Please check your appointment letter carefully for your appointment date, time and location.

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 a consent form to give your agreement for the procedure to go ahead.

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

You may also be given forms to read and complete. One of these forms relates to pregnancy status, Oxford University Hospitals is an inclusive organisation who recognises and accepts the diverse community that it is part of. This has resulted in the organisation reviewing many of its processes and procedures to make sure they are in line with this, with the safety and protection of individuals being at the centre of any changes or adjustments. We are now asking the childbearing capacity questions to all patients, regardless of their gender.

Your clinician has requested diagnostic imaging that requires an exposure to radiation. As radiographers, it is our professional duty and legal responsibility to ensure that we protect individuals from unnecessary exposures to radiation. This is particularly relevant when considering any potential exposure of an unborn baby to ionising radiation, as they are at greater risk from the harmful effects of radiation. If we cannot exclude that you are not pregnant, we may need to rebook your scan.

**If there is any possibility that you might be pregnant, please contact the Radiology department before your appointment.**

# Who will perform the procedure?

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

These imaging techniques are used to monitor the procedure and 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.

# What happens in the CT Scan room?

Ablation is performed in the CT scanner in the Radiology department. You will need to have a general anaesthetic which means you will 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 CT scan.

The consultant radiologist will find the abnormality in your kidney. They will use images to guide them, either from the Ultrasound 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.

# 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 can 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 lightheaded or dizzy.

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

# What are the alternatives?

Ablation may be combined with other treatments to treat renal tumours. Your doctor will discuss with you the best course of treatment in your case.

# What happens when I go home?

Normally, you will 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 or pain 1-2 weeks after the procedure

# Useful telephone numbers

Thermal Ablation Administrator
Tel: **01865 235 746**
(8.30am to 5.00pm, Monday to Friday)

# Further information

Further information is available on the following websites:

### The Society of Radiographers

There are short videos showing the way in which X-rays and scans are used, including CT scanning.

Visit: **www.sor.org** and search for 'patient information'

### Impact scan

Visit: **www.sor.org** and search for 'impact scan CT patient guide'

### NHS Choices

Visit: **www.nhs.uk/conditions/ct-scan/**

### For further information about the Oxford University Hospitals NHS Foundation Trust:

Visit: **www.ouh.nhs.uk**

If you need an interpreter or would like this information leaflet in another format, such as Easy Read, large print, Braille, audio, electronically or another language, please speak to the department where you are being seen. You will find their contact details on your appointment letter.

## 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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November 2023
Review: November 2026
Oxford University Hospitals NHS Foundation Trust
www.ouh.nhs.uk/information



Leaflet reference number: OMI 83939