

Radiology Department

Lung Tumour Ablation

Information for patients



What is Ablation?

You have been selected by your doctor to have ablation treatment for your lung tumour. Ablation is a technique that destroys tissue through heating. In order to produce the heat needles are placed into the lung, using image guidance (e.g. CT scanning). Only a small amount of heat is produced – slightly less than a boiling kettle and the heat only travels a small distance (a few centimetres) within your body. Most of the normal lung tissue is not affected. A radiofrequency electric current or microwaves may generate this heat.

Radiofrequency ablation has been available since the late 1990's and has been used successfully in Europe and America. It is now being used increasingly in England. Microwave ablation is a new technique, which may prove more effective.

What are the benefits of Ablation?

Ablation can be an effective treatment for primary lung cancers and for cancers that have already spread to the lung from elsewhere, but which would be unsuitable for surgical treatment. The procedure can be repeated. You can resume your normal activities within a few days.

How is it done?

Ablation is performed either in X-ray or the operating theatres and is most often done using local anaesthetic and sedative medicines. One of the consultant radiologists will then find the abnormality in your lung using the CT scanner.

The ablation needle will then be guided into the correct area of your lung and 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 to treat the whole abnormality within the lung.

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 lung abnormality suitable for the ablation, and that there are no other problems making it more risky. You will also have been seen by one of the doctors looking after you, and they will have suggested that we should perform the ablation.

The risks 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.
- Air trapped in the lining of the lung (pneumothorax).
- Bleeding from the needle inserted into the lung.
- Lung infection after the treatment.

The radiologist that discusses the procedure with you will give you an estimate of the risks. 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 actually less than this.

Thousands of ablations have been performed world-wide and we have performed over 50 procedures. Our immediate success is close to 100%.

What are the alternatives?

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

Pre-operative Assessment

We will ask you to come for a pre-operative assessment appointment. 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 need an ECG and a blood test. We will check the functioning of your lungs. The nurse will explain the procedure to you and give you instructions about eating and drinking before your procedure. This is a good opportunity for you to ask us any questions about the procedure.

We will also give you separate information 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 – either prescribed by a doctor or bought over the counter in a pharmacy. It helps us if you bring details of your medicines with you 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, placed in the green bag which we will give you.

Consent

We will give you a copy of the consent form. Please read this carefully. If you have any further questions, please ask 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. Once 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 sedation or anaesthetic. If you have any questions or concerns, this is the time to ask.

How long will the procedure take?

This is variable depending on the complexity and size of the tumour. Generally, the ablation itself will take 60 to 90 minutes but may take longer.

What happens after the treatment?

When you wake from your sedation, you will be in the recovery area. The nurse will regularly check your pulse 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 may have an intravenous drip in your arm, which will be removed before you go home. Your nurse will offer you pain relief to help with any discomfort. By the next day, most people require painkillers 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.

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.

You will receive follow up CT appointments at 3, 6 and 12 months after treatment.

Who will perform the procedure?

Ablation is performed by radiologists who have particular expertise in guiding needles and catheters using imaging. Imaging techniques are used to monitor the procedure and to follow up the results. In Oxford, Dr Ewan Anderson, Dr Fergus Gleeson and Dr Philip Boardman perform ablation. They are all consultant radiologists with a particular interest in cancer treatments. They work as part of a team with other doctors involved in your care.

Signs to look out for

If you experience either of the following symptoms:

- Shortness of breath and pain on breathing in
- Pain that is not controlled by regular painkillers (e.g. paracetamol)
- Increasing fever or pain 1-2 weeks after the procedure

you should contact your GP.

Useful telephone numbers

Sam Atwood

Ablation Co-ordinator and

PA to Professor Gleeson and Dr Anderson 01865 234746

(Sue Dale, Secretary to Dr Boardman) 01865 235745

Further information

The Macmillan website has information about radiofrequency ablation:

www.macmillan.org.uk

If you need an interpreter or need a document in another language, large print, Braille or audio version, please call **01865 221473** or email **PALSJR@orh.nhs.uk**

Ewan Anderson, Consultant Radiologist

Version 3, January 2011

Review, January 2014

Oxford Radcliffe Hospitals NHS Trust

Oxford OX3 9DU

www.oxfordradcliffe.nhs.uk/patientinformation