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Title of Leaflet	CT guided percutaneous cryoablation of kidney tumours			
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Legal Notice

Please remember that this leaflet is intended as general information only. We aim to make the information as up to date and accurate as possible. Please therefore always check specific advice or any concerns you may have with your doctor.



Frimley Health
NHS Foundation Trust

Frimley Renal Cancer Centre
Frimley Park Hospital

CT Guided Percutaneous Cryoablation of kidney tumours

Information for patients, relatives and carers

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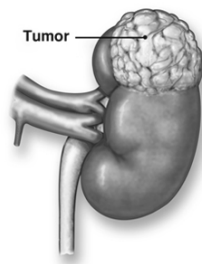
Facing the future

This booklet aims to explain the procedure you will have whilst in hospital; it serves as a guide. If any questions arise from reading this information, please speak to one of the Kidney Cancer Nurse Specialists (contact details are on page 7).

The kidneys are a pair of organs located at the back of the abdomen which filter blood to remove waste products producing urine. The urine is carried from each kidney to the bladder via a tube called the *ureter*. When the bladder is full the urine passes out of the body through a tube called the *urethra*. The urethra opens immediately in front of the vagina in women and at the tip of the penis in men.

If you are diagnosed with a kidney lump (or tumour) the following information is important to know:

- Localisation of the tumour
- The estimated size
- Your age and co-morbidities
- Your current medications
- Your current kidney function
- Previous surgery on your abdomen / kidneys
- Involvement of renal vein, adrenal gland



Follow-up

After cryoablation you will receive a telephone appointment with one of the Kidney Cancer Nurse Specialist Sister Jo Oakley or Sister Kate Brown. During this call the nurse will review your recovery and discuss ongoing surveillance.

Useful Telephone Numbers/contacts

Sister Jo Oakley Kidney Cancer CNS	0300 613 2426
Sister Kate Brown Kidney Cancer CNS	0300 613 5804
FRCC Senior Clinical Admin Officer	0300 613 4450
Appointments	0300 613 4201
Radiology Department	0300 613 4140
Pre-Operative Department	0300 613 2157

Going Home

Normally you will go home the same day as your procedure. The inpatient team will assess you before you are discharged, and you will go home with a copy of your treatment summary which will be shared with your GP.

If you work, you should expect to be off work for one week after treatment. The doctor will arrange this for you before you leave hospital. You are advised to avoid heavy lifting or strenuous exercises for a period of 4 weeks.

Please make arrangements for someone to collect you, as you will not be fit to drive home following the sedation.

One of the Kidney Cancer Specialist nurses will call you a few days after your procedure to ensure you are recovering well.

If you develop any of the following:

- Shortness of breath
- Pain on breathing
- Fever or pain for more than 1 week
- Bleeding
- Redness and /or swelling where the needles were inserted
- Blood in your urine

Please seek advice from the Kidney Cancer Nurse Specialist in normal office hours.

If out of hours / weekends, please call the Surgical Assessment Unit (SAU) helpline on 0300 613 6960

In an emergency, dial 111 or attend your local A&E department.

What is Cryoablation?

Cryoablation is a technique that destroys tissue, in this case through freezing. The procedure is usually performed in the radiology department / interventional suite. Needles are placed into the kidney using image guidance (Computed Tomography - CT scans). A mixture of gases is then used to freeze and thaw the tips of the needles. Temperatures lower than -100°C are produced, but this only travels a small distance (a few centimetres) within your body. Most of the normal kidney tissue is not affected.

Cryoablation can be an effective treatment for kidney tumours. If necessary, the procedure can be repeated. Most people can resume normal activities within a few days.

What are the risks of the CT Guided Percutaneous Cryoablation?

Thousands of cryoablations have been performed worldwide, however no procedure is risk free. Risk of a serious complication is 2-3 patients in 100 (2-3%). Risk of death is less than 1 in 200 (0.5%).

Possible problems which may happen straight away

- Risk of lung / bowel injury
- Bleeding from the kidney or skin at the needle insertion site. This very rarely but may require a blood transfusion or further procedure to stop the bleeding (embolisation)
- Risk of urine leak

Other potential problems

- Post ablation syndrome, which occurs in about 1 in 4 patients. This is flu-like illness that happens 3-5 days after treatment. This may require paracetamol if you develop a temperature.
- Kidney infections which may require antibiotics.
- Injury to the kidney. This is very rare but may require further procedures.

Before you come to hospital:

You will be asked to come for a pre-operative assessment appointment, where we will ask you about your medical history and carry out necessary tests to ensure you are fit for the procedure.

You will need to stop eating 6 hours before your procedure. You can continue to drink clear fluids (water) up to 2 hours prior to the procedure, then 'nil by mouth' until the procedure.

You will be asked about any regular medications you take, please tell the nurse about all prescribed medications and those you may buy over the counter. Please bring them with you on the day.

You will be told if and when they should be stopped prior to the procedure.

IT IS IMPORTANT TO LET THE HOSPITAL KNOW IF YOU ARE ON ANY DRUGS THAT THIN THE BLOOD, e.g. Aspirin, Warfarin, Clopidogrel, Dipyridamole, Edoxaban, Apixaban etc

What happens during cryoablation:

After admission, the radiologist will see you to talk to you about your procedure and to answer any questions you may have. Once you have understood all the information, including the benefits and the risks of complications, the radiologist will ask you to sign a consent form.

The anaesthetist will also see you before the procedure and talk to you about the sedation.

Cryoablation usually takes 2-3 hours, but if the tumour is larger, it may take longer. Cryoablation is performed by a radiologist who has a particular expertise in guiding needles using imaging. The radiologist will find the abnormality in the kidney using the CT scanner. The cryoablation needles will then be guided into the correct area of your kidney. The tumour will then be frozen to destroy it. A completion scan is then performed to assess the immediate results of the treatment.

What to expect after cryoablation:

When you wake from your sedation, you will be in the recovery area, where the nurse will regularly check your pulse and blood pressure. You will then be taken back to your ward, where you will be allowed to drink and eat something light when you are ready. You will have a drip in your arm which the nurse can use to give you medications if necessary. This will be removed before you go home. You will be given pain relief if you experience any discomfort.