

NanoKnife Appeal



Life-saving procedure at
Leeds Cancer Centre
using revolutionary,
non-invasive technology

The NanoKnife System

Pioneering, Revolutionary, Life-saving

A pioneering new cancer treatment for inoperable tumours in the lungs, kidney, liver, breast, prostate and pancreas is now available at Leeds Cancer Centre.



Dr Tze Wah performs the non-invasive procedure using the NanoKnife

The NanoKnife system will greatly enhance patient care by offering an alternative in cases where invasive surgery is not possible.

Dr Tze Wah, Consultant Interventional Radiologist, and her team have already performed 14 procedures on patients with kidney, liver and more recently, pancreatic cancers.

Dr Wah has been leading the development of Interventional Oncology (IO) at Leeds Cancer Centre for 13 years. IO is now the fourth pillar of cancer care complimenting surgical, radiation and medical oncology. Over the last twenty years, there has been a shift in the treatment paradigm where some inoperable or smaller

cancers have been treated using a range of image guided thermal ablative technology.

However, this therapy does have limitations - it cannot be carried out on tumours that are near to major blood vessels or in difficult to treat parts of the body. The new NanoKnife technology uses electrical pulses to destroy cancer cells (Irreversible Electroporation) but leaves the normal surrounding tissue unaffected. For patients where the cancer site is too close to arteries, airways or the surface of organs, this treatment offers a real alternative.



Leeds Cancer Centre, St James's Institute of Oncology, has gained a national and international reputation for many of its pioneering and innovative cancer treatments. A range of cancer treatments are provided at this state of the art centre where 2,000 patients are treated every day. Leading clinicians and scientists work tirelessly to provide the best possible treatment for individual patients in their care and to continuously seek a cure for this indiscriminate disease that still affects one in three of the UK population.



Dr Tze Wah and members of the Interventional Oncology team

What are the benefits of NanoKnife?

- Cutting-edge technology that treats tumours previously considered inoperable, or where conventional thermal ablative technology is not an option
- Virtually painless treatment with patients receiving treatment under general anesthesia and generally experiencing few or no side effects
- Short treatment that usually requires only an overnight hospital stay
- No stitches or staples, just a small bandage

The procedure is performed under general anaesthetic. The NanoKnife device, about the size of a small refrigerator, is connected to at least two disposable NanoKnife electrode needles that are inserted through the skin into the tumour, using CT or Ultrasound scan guidance to ensure the needles are in the right place so that delicate organs nearby are not damaged. The needles are inserted with pinpoint accuracy

“NanoKnife has the potential to prolong survival and provide a good quality of life.”



into the tumour with optimum placement.

A series of electric pulses under high voltage are delivered across the needle electrodes within a two minute timeframe which completes the ablation process. The procedure takes about an hour.

NanoKnife

Treating tumours at a cellular level

Dr Tze Wah: "I am very pleased that we are now able to use this NanoKnife technology to add to the range of treatment options available here at Leeds Cancer Centre for these types of tumours.

"The innovative Interventional Oncology Team is delighted with the positive results we've witnessed in patients who have received the treatment using our trial machine. Now we simply must purchase this revolutionary device so that our cancer patients here in Leeds, throughout Yorkshire and from further afield can look forward to greater, positive outcomes as a result of this revolutionary cancer treatment."

"The technology is here - we have the expertise & the vision. Now we need funds to purchase our own NanoKnife to benefit patients in Leeds."

How You Can Help

The NanoKnife costs £160,000 - expensive yes, but in the long run, this is a cost-effective treatment with a shorter hospital day stay when compared to conventional surgery, and it offers a faster recovery time. Leaving costs aside, our ultimate aim is to empower more patients to survive cancer and prolong survival.

Your generosity can help us to purchase this life-saving device during 2016. Our patients deserve it. Please help if you can. Please visit our NanoKnife Appeal link: www.yorkshirecancer.org.uk/about.php?find=NanoKnife

For further information contact Yorkshire Cancer Centre Appeal Director, Sheila O'Shea on 0113 206 8444 or sheilao'shea@nhs.net

You can donate to the NanoKnife Appeal Fund either by cheque, payable to 'Yorkshire Cancer Centre Appeal' (ref: 8Y03) or by debit/credit card tel: 0113 206 8620 (ref: 8Y03)

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