

## **The 100th patient is treated at the UK's first CyberKnife™ Centre**

RealWire

### **NHS patient suffering from prostate cancer receives 100th treatment at Harley Street CyberKnife Centre**

A man from Greater London has become the 100th person to be treated at the UK's first [CyberKnife Centre](#) [1] at the renowned [Harley Street Clinic](#) [2] in London.

The man, who has been suffering from prostate cancer, could not be treated by other forms of radiotherapy. He is among a growing number of patients sent to the Harley Street Clinic for CyberKnife radiotherapy treatment by their NHS trusts.

The patient's oncologist, Dr Stephen Karp, said that the unique characteristics of the CyberKnife system made it an extremely valuable new tool in the treatment of difficult cancers. "For a select sub group of patients CyberKnife may be the only machine that can deliver the appropriate dose of radiation to a tumour. It is absolutely ideal for the close distribution of radiation without damaging surrounding tissue," he said.

CyberKnife has a compact linear accelerator fitted with a variable Iris system which can shape thin beams of radiation as required. It is mounted on an extremely manoeuvrable robot arm and is able deliver pencil thin beams of radiation in pre planned pulses of varying strength from many different directions.

By mapping a tumour three dimensionally prior to treatment, oncologists and physicists calculate the dose of radiation to match the shape, density and position of a tumour. The tumour is then 'marked' with tiny particles of gold and during treatment the robot is guided by an ultra sensitive X-ray guidance system allowing the Cyberknife to compensate for a patient's breathing and ensuring sub millimetre accuracy. Radiation is delivered from many directions avoiding damage to surrounding tissue and so many tumours that were previously impossible or very difficult to treat, can now be treated by CyberKnife.

The Medical Director of the CyberKnife Centre at The Harley Street Clinic, is Dr Nick Plowman, one of Europe's leading authorities in the use of radiosurgery. "CyberKnife enables us to deliver more radiation to a tumour than we can with orthodox technology and we are very pleased with the results we have seen with this new machine," he said.

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"Over the past year we have broken new ground and achieved a world first by treating an intracardiac tumour and we have had referrals for others. So we are developing the technique. It's great to be part of a new service developed here with the help of a top quality team," he said.

Ends

Note to Editors:

- CyberKnife™ is a robotic radiotherapy machine which is able to treat many types of cancer that were previously impossible or difficult to treat with conventional radiotherapy machines. Essentially it is a compact linear accelerator radiotherapy machine mounted on a highly manoeuvrable robotic base which is controlled by a state of the art guidance system.
- CyberKnife™ is able to 'paint' a tumour with beams of precisely programmed doses of radiation from many angles without damaging adjacent tissue. Each beam of radiation is calculated to match the depth, density and outline of the tumour being treated.
- A tumour is first mapped three dimensionally by a CT scanner and a digital map is produced to allow the calculation and directions of radiation dosages for CyberKnife™ to deliver.
- This machine is more accurate than conventional radiotherapy linear accelerators. It has a special guidance system which moves the robot in parallel with a patient's breathing, allowing, for the first time, sub millimetre accuracy for the beam of cancer destroying radiation. As a result, the machine can now treat previously untreatable or difficult to treat cancer such as spinal tumours, pancreatic cancer, lung tumours, and many more in every part of the body.
- This, the first machine of its kind in the UK, based at the CyberKnife™ Centre at The Harley Street Clinic and is part of the HCA Cancer Care network, the largest provider of cancer care in the UK outside the NHS.

<http://www.cyberknifecentre.london.co.uk/> [1]

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**Links:**

[1] <http://www.cyberknifecentre.london.co.uk/>

[2] <http://www.theharleystreetclinic.com/>

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[3] <mailto://news.hcahospitals.com/nhuband@prioritycounsel.com>

[4] <http://www.realwire.com/releases/the-100th-patient-is-treated-at-the-uks-first-cyberknife-centre>