



Hermitage patients go under the Cyberknife in a radical new initiative

BY CAROLINE ALLEN

The increased number of flights between the United Arab Emirates and the rest of the Arab world, and Ireland, is expected to boost medical tourism at the **Hermitage Medical Clinic's** Cyberknife Centre – the first of its kind in Ireland.

The Cyberknife Centre was officially opened by Berndt Wowra, professor of neurosurgery at the European Cyberknife Centre in Munich, on March 1. It offers a groundbreaking robotic surgery system designed to non-invasively treat tumours throughout the body.

Approximately 30 adults with a wide range of intracranial tumours have been treated with Cyberknife Stereotactic Radiosurgery at the **Hermitage Medical Clinic** since November 2013. Acute tolerance has been excellent to date and early results are very encouraging, according to Dr Clare Faul, consultant radiation oncologist at the centre.

Within the next three months, it is hoped to broaden the treatment to include patients with tumours of the lung, prostate, pancreas and spine, Faul said. The treatment is available in up to 100 centres worldwide,

the majority of which are in the US. Whereas in the past, patients had been referred abroad, the treatment has been available at the Irish centre since last November, saving considerable expense and time, according to Faul.

Cyberknife treatment provides a pain-free non-surgical option for patients who have inoperable or surgically complex tumours or who are looking for an alternative to open surgery, which can bring with it greater risks and a longer recovery time. It works by sending multiple beams of high dose radiation from a wide variety of angles, using a robotic arm. X-ray cameras monitor the patient's breathing and reposition the radiotherapy beam to minimise damage to healthy tissue.

The chief driver behind the adoption of the Cyberknife system at the **Hermitage Medical Clinic** is consultant neurosurgeon Danny Rewluk, who previously worked with the technology in London.

Treatment starts with scans and planning. Indi-



The **Hermitage Medical Clinic**

Picture: Eugene Langan

vidual treatment sessions usually last between 30 to 60 minutes, depending on the type of tumour being treated. Most patients are treated in a single session, according to Faul. Where treatment is delivered in stages, this is typically done in a maximum of five sessions.

"This treatment can offer hope to patients with tumours that are very difficult to access or that are medically inoperable," said Faul. The treatment has also proven to be very effective for benign conditions such as trigeminal neuralgia, reducing pain in up to 70 per cent of patients.

Faul said that, while Cyberknife treatment was not



suitable for all patients, it offered a viable alternative for tumours that are difficult to treat surgically. "For small targets and specific indicators, it offers highly targeted radiation," she said.

"The advantage of being a robotic machine is that it moves in numerous different planes around the patient, resulting in pinpoint accuracy of less than one millimetre. The patient is continually tracked during the delivery of the radiation, ensuring the accuracy of radiation delivery."

The opening of the Cyberknife Centre was followed by a symposium on the technique, targeting clinicians.

Speakers included Dr Alan Katz, consultant radiation oncologist who presented on Cyberknife radio-surgery for early prostate cancer. Other speakers were Dr Ronald Beaney from the Cyberknife Unit, Harley Street Clinic, London and Dr Geoff Heyes, principal Cyberknife physicist, OE Birmingham.

Faul spoke of her experience to date of Cyberknife at the Hermitage Medical Clinic and the patient referral pathway. The event was chaired by Rawluk and attended by consultants from different specialties including radiation and medical oncology, neuro-surgery, neurology, urology

and respiratory medicine.

The Hermitage Medical Clinic's chief executive, Eamonn Fitzgerald, acknowledged the continued commitment and support of the investors in developing the hospital as a centre of excellence for patient care, through the dedication of skilled and compassionate staff, as well as cutting-edge medical technologies.

Interest in the system has been growing since the start of the year, according to Faul. "There are other types of stereotatic machines available, but the attraction of Cyberknife is that it is the only robotic system that continuously tracks during the treat-

ment delivery, resulting in significant reduction in the radiation of normal tissue," she said.

"The major health insurance companies in Ireland have approved the treatment for the intracranial sites and other patients are covered on a case-by-case basis, with ongoing discussions taking place, according to Faul.

The Hermitage Medical Clinic, in conjunction with Enterprise Ireland's Trade Delegation, was represented at the Arab Health Exhibition and Congress in Dubai last January, to promote the Cyberknife Centre and educate clinicians on its uses.