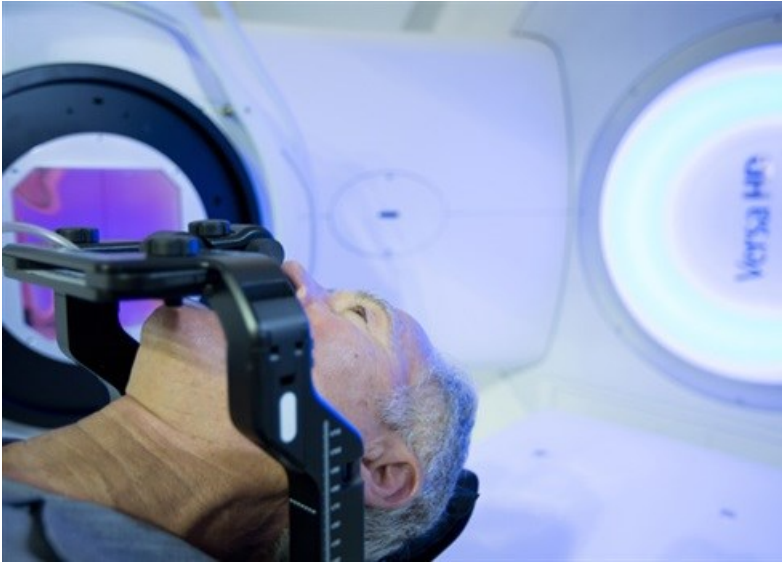


## Durban Oncology Centre receives international scale linear accelerator

The Oncology Centre in Peter Mokaba Ridge Road, Durban has received an Elekta VERSA HD Linear Accelerator, the first of its kind on the African continent from Equra Health.



Erhardt Korf, Equra Health Chief Operating Officer, explains that this radiotherapy machine, which is set to become operational at the end of April, will support more versatile treatment options with precise delivery and significantly reduced time needed to deliver the same radiation allowing higher throughput.

"With the number of cancer patients expected to increase significantly over the next five to ten years, our Ridge Road Oncology Centre is preparing to increase its patient treatment capacity. It will also become one of only a handful of facilities in KwaZulu Natal equipped to offer a broad range of more advanced treatment modalities."

The installation is in line with a ten-year preferred provider agreement signed by Elekta and Equra Health in 2013. The healthcare group is slowly migrating its large fleet of Siemens linear accelerators to Elekta equipment at its 24 affiliated centres in Southern Africa.

The linear accelerator positions the Ridge Road Oncology Centre as a flagship unit in the region, with other flagship sites to be upgraded in Gauteng and the Western Cape over the next two to three years.

The linear accelerator can deliver x-ray beams at conventional dose rates, as well as extremely high dose rates when the flattening-filter-free beam option is selected. It is also capable of delivering 3D conformal therapy or Intensity Modulated Radiotherapy in a conventional step-and-shoot technique, or via a VMAT delivery option.

It is the only machine in KwaZulu-Natal to have three photon energies (6MV, 10MV and 15MV) in addition to a large range of electron therapy beams available. It will offer radiation oncologists, physicists and radiotherapists the most versatile approach to target a cancerous lesion, while protecting healthy surrounding tissue. This linear accelerator also offers the most up to date patient-monitoring device in the form of KV imaging to enable better treatment accuracy.

## **Cost-effective cancer treatment**

According to Erik Leksell, MD, Sub-Saharan Africa at Elekta, radiotherapy is one of the more cost-effective interventions in cancer. "Therefore, the company is very committed to developing and improving cancer care in South Africa. We are very excited providing our latest solution to Equra Health which will benefit and improve quality of care of their patients."

The installation in the radiotherapy unit opens up a large range of treatment options to both ICON and non-ICON patients in the region. Planned treatment options available on this linear accelerator include 3D conformal, IMRT and VMAT. More advanced treatment options are planned for in the near future, which include Stereotactic radiotherapy and IGRT with or without respiratory gating. These new treatment modalities enable the oncologist to offer more accurate treatment, resulting in reduced side effects to the patient.

"It's important to note that not all patients require treatment with this highly advanced technology. For around 80% of patients, standard radiotherapy is effective. However, at certain stages of disease, and in the case of certain head, neck and lung cancers, more accurate stereotactic radiation doses are beneficial," says Korf.

## **Planning system also installed**

The installation of this new linear accelerator will coincide with the rollout of the state-of-the-art Monte-Carlo based treatment planning system, Elekta Monaco 5, which will enhance the planning process. This method offers the most accurate way to calculate the dose distribution to the tissues and is the fundamental physics technique used to determine how the photons and subsequently electrons interact with the tissue and how they behave to deposit their energy during treatment delivery.

"This is the latest and greatest in treatment planning, and the most accurate way to calculate how the radiation dose will be delivered. It complements the advanced treatment possible with the linear accelerator. Our staff, who are currently undergoing training on the new system, are very excited about its potential to deliver more accurate treatment, faster, with fewer side effects," he concludes.

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