

Top stories in this newsletter—Medical Applications of Atoms for Peace in Kenya



Computed Tomography (CT)



Nuclear Medicine (NM)



External Beam Radiotherapy (EBRT)



Cyber-knife (SRS/SBRT)

Computed Tomography (CT)



CT uses x-rays to provide images of areas inside the body. CT shows images of the body in slices, like a loaf of sliced bread. The duration of a CT scan depends on the area of the body being scanned.

The radiation exposure from a CT scan is higher than that of a standard x-ray, but the cancer risk from one CT scan is small. Individuals that want more than one CT scan or CT scans for children, should talk to their doctors first. Multiple centers around Kenya possess CT scans.

Nuclear Medicine (NM)



In NM, radioisotopes are attached to drugs to form a radiopharmaceutical that travels to a specific organ or tissue. The aim is to diagnose or treat various health conditions.

Patients in NM are radioactive for a certain amount of time, which depends on the radionuclide used. Once that time is up, they are safe to go home after imaging or treatment.

At the moment, we have two cyclotron machines in Nairobi that make the radionuclide known as FDG. It is useful for imaging in the diagnostic radiology departments with PET machines at AKUHN and KUTTRH.

External Beam Radiation Therapy (EBRT)



EBRT comes from a machine that aims radiation at your cancer. The goal is to give the tumor as much radiation as possible while sparing normal tissue around it. Majority of people have EBRT once a day, five days a week. Radiation is given over a period of time, to give healthy cells time to recover.

When people get radiation treatment, they often wonder if they will be radioactive. EBRT does not make a patient radioactive and one can safely go home after treatment.

EBRT is offered in Nairobi at; Aga Khan University Hospital, Cancer Care (K), Kenyatta National Hospital, Kenyatta University Teaching Training and Referral Hospital, Texas Cancer Center, The Nairobi Hospital, and The Nairobi West Hospital.

Cyberknife



The cyberknife is not really a knife.

It is more efficient than other machines used in EBRT because it has a robotic arm that can move around the patient. It also uses a tracking system and corrects for movement. This ensures that x-rays are delivered precisely and accurately.

Because it is accurate, it can be used to cut down on the number of treatment sessions that are needed.

This big guy is only available in one facility in Kenya, Kenyatta University Teaching Training and Referral Hospital.