

Malawi's New Magnetic Resonance Imaging (MRI) Centre

On 23rd June 2008 the Minister of Health, Honourable Khumbo Kachali opened the first ever Magnetic Resonance Imaging Centre at Queen Elizabeth Central Hospital in Blantyre. The machine has been set up, thanks to a combination of efforts from the Malawi government, Michigan State University, College of Medicine, National Institutes for Health (USA), and General Electric Health Care who donated the actual machine according to radiologist, Dr. Sam Kampondeni.

According to www.medicinenet, MRI is a radiology technique that uses magnetism, radio waves and a computer to produce images of body structures. The scanner is a tube surrounded by giant circular magnet. The patient is placed on a moveable bed that is inserted into the magnet. The magnet then creates a strong magnetic field that aligns the protons of the body and they produce a faint signal that is detected by the receiver portion of the MRI scanner. The received information is processed by a computer and an image is produced.

According to Dr Kampondeni so far over 200 patients have been scanned by the MRI. "Each patient takes 1 hour to be scanned. We do about 5 patients per day. Patients from QECH and other government hospitals are done free. Patients from private hospitals pay a subsidized fee," he said.

He further explained that doctors decide which patients need an MRI and once the decision is made, the patient comes to the MRI unit in person to be booked, and during this time, they make sure the MRI is safe for the patient in question.



Patients who have metallic materials within the body are advised to notify the MRI staff because this can significantly distort the images obtained by the MRI scanner. Similarly patients with artificial heart valves, metallic ear implants, insulin pumps are advised not to have an MRI according to www.medicinenet.

The advantages of the MRI compared to x-rays, ultrasound or CT scan (other imaging methods) available at QECH, Dr Kampondeni explained are that MRI shows better soft tissue characterization and that its accurate in detecting structural abnormalities of the body and further still the patient avoids X-ray radiation exposure.

The MRI machine is owned by the College of Medicine, University of Malawi but will also help Michigan State University physicians who are doing research on cerebral malaria in Malawi where the vast majority of malaria patients are children. This will enable them to get a closer look at the damage malaria does to a child's brain, something that, before the coming of the MRI was only done in an autopsy.

Not only will the MRI machine be the first in Malawi, it will also serve the neighbouring countries of Mozambique and Zambia, neither of which has an MRI.