KENYATTA UNIVERSITY TEACHING, REFERRAL & RESEARCH HOSPITAL

THE CHECK UP

VOL. 3 ISSUE 6



AORTIC VALVE REPLACEMENT SURGERY AT KUTRRH

INSIDE

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Our continued commitment towards saving lives.

SUPPORTING CAPACITY BUILDING IN MEDICAL GASES MANAGEMENT
KUTRRH at the heart of knowledge transfer.

KUTRRH AT THE FOREFRONT OF EAR, NOSE & THROAT TREATMENT
Report shows by year 2050, one in four persons will suffer some hearing loss



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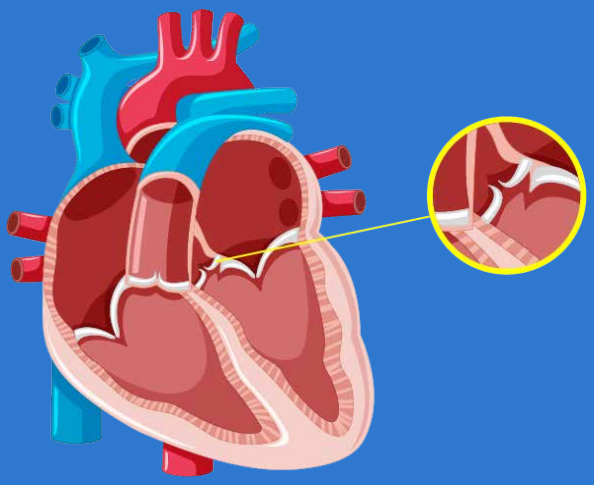
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Quality Patient Centered Care

AORTIC VALVE REPLACEMENT SURGERY AT KUTRRH



On 26th July 2022, a team of KUTRRH doctors performed the first aortic valve replacement surgery at KUTRRH. The 22-year-old patient had rheumatic heart disease affecting the aortic valve leading to severe aortic valve insufficiency. Usually the aortic valve allows oxygenated blood to flow from the heart to the rest of the body in one direction.

However, when you have the aortic valve not closing properly either because of a disease affecting the leaflets (like in this case rheumatic heart disease) or enlargement of the aortic valve ring due to enlargement of the left ventricle, the valve leaks leading to forward and backward flow of blood when the heart contracts. This leads to flooding of blood into the lungs with resultant difficulty in breathing and fatigue.

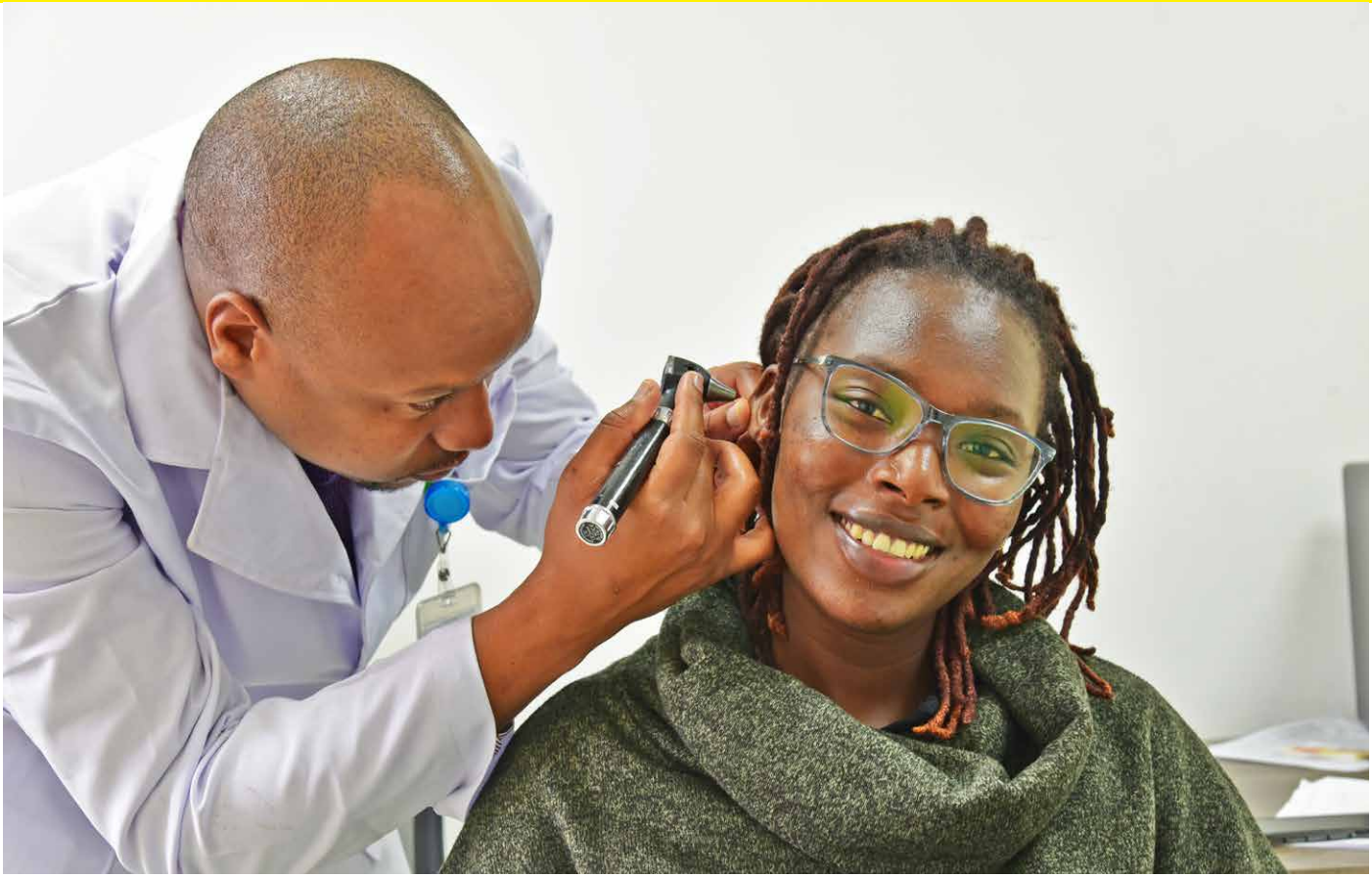
Aortic valve replacement entails replacing the diseased valve with a mechanical valve to restore normal blood flow across the valve. The surgery entails opening the chest and connecting the patient to a cardiopulmonary bypass machine which acts as an artificial heart and lung, followed by stopping the heart with special medicine and then the disease valve is removed and replaced with a mechanical valve. The surgery was successful and patient was transferred to the ICU and three days later moved to the normal ward.

The members of the team included:

1. Cardiothoracic Surgeons: Dr William Okumu, Dr Enock Makori and Dr Nikita Mehta
2. Anaesthesiologists: Dr Isaac Adembesa, Dr David Waruingi and Dr Abdiwahab Osman Ibrahim
3. Cardiac perfusionists: Boniface Mutuku and Ericson Kilonzo
4. Cardiac nurses: Samwuel Karanu, Victor Shotote
5. Theatre technician: Oscar Imbayi
6. Biomedical engineer: Julius Nganga



KUTRRH AT THE FOREFRONT OF EAR, NOSE AND THROAT TREATMENT



World Health Organization's (WHO) first World Report on Hearing, which was published in 2021 reveals that about 2.5 billion people globally or 1 in 4 people, will have some degree of hearing loss by 2050. If nothing is done, at least 700 million of these people will need access to hearing care.

ENT disorders frequently have severe side effects, such as hearing loss and emotional stress which reduces a patients' quality of life. One of the most typical infections seen in outpatient facilities in Kenya are upper respiratory infections. Because some of the causative microbes have developed antibiotic resistance, some of these infections are becoming difficult to control, necessitating the development of new medications with greater efficacy.

Untreated hearing loss can have a devastating impact on people's ability to communicate and to earn a living. It can also impact on people's mental health and their ability to sustain relationships.

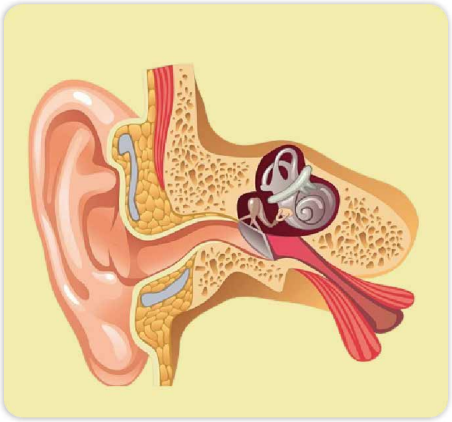
Often times the ability to receive treatment for ear illnesses and hearing loss is frequently hampered by a lack of correct information and a stigmatizing attitude towards these conditions.

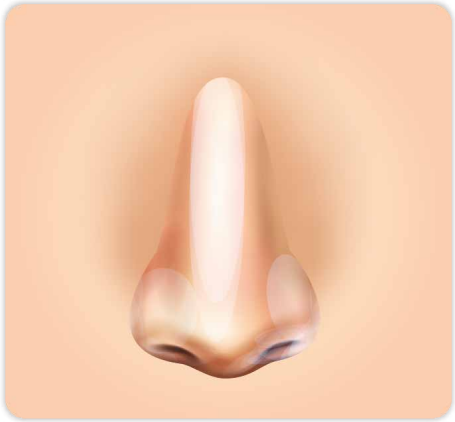
Even among health care professionals, there is frequently a knowledge gap about the prevention, early detection and management of hearing loss and ear illnesses, which limits their capacity to deliver the necessary care.

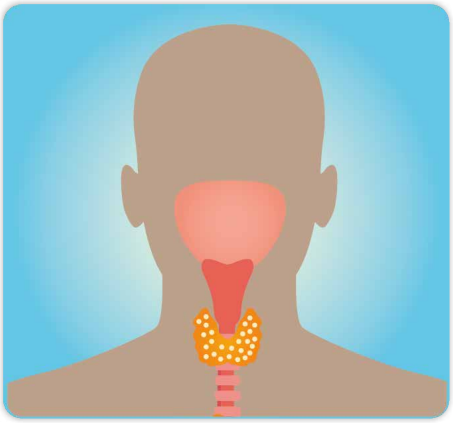
Hearing loss in children can be prevented through measures such as immunization for prevention of rubella and meningitis, improved maternal and neonatal care and screening for, and early management of, otitis media (inflammatory diseases of the middle ear). In adults, noise control, safe listening and surveillance of ototoxic medicines together with good ear hygiene can help maintain good hearing and reduce the possibility of hearing loss.

There is an unequal distribution of experts, even in nations with relatively high percentage of ear and hearing care professionals. In addition to presenting difficulties for those who require care, this sets unreasonable demands on the cadres who are responsible for providing those services.

The ability to diagnose ear illness and hearing loss at any age, in clinical or community settings, and with little experience or resources has been made possible by recent tech-





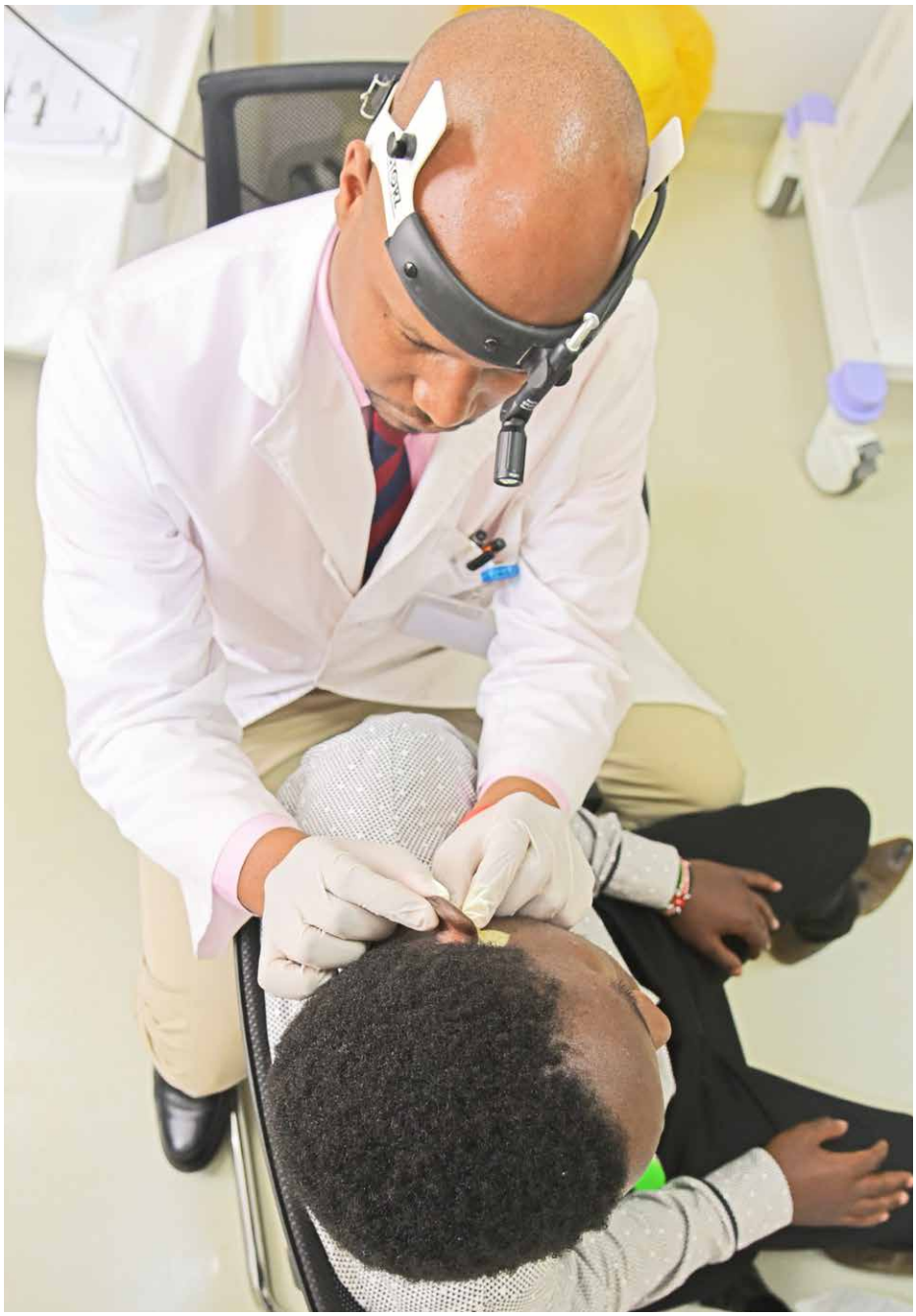


nology advancements, including precise and user-friendly technologies. Even in difficult circumstances such as those faced during the COVID-19 epidemic and for persons residing in underserved and distant regions of the world, screening can be conducted. Hearing assistive technology and services, like captioning and sign language interpretation, can also help people with hearing loss have better access to communication and education.

Informed by this facts KUTRRH has invested in high quality diagnostic machines for ear and hearing interventions as well as qualified staff. The equipment include OAE, tympanometry machines , audiometers , microscopes for ear surgery to list but a few. KUTRRH provides hearing aids, cochlear implants and the proper follow up.

KUTRRH is also currently working on protocols for screening of patients at risk of getting hearing loss from medical interventions such as chemotherapy and radiotherapy, TB and those receiving ototoxic medications with the aim of achieving positive outcomes for the patients. Specialized services in KUTRRH's ENT unit include nasal endoscopy, laryngoscopies and a variety of ENT surgical outpatient procedures. Hearing rehabilitation services include fitting of hearing aids, speech and rehabilitative therapy, sign language and use of other devices such as cochlear implants.

KUTRRH treats a variety of ENT disorders including snoring and sleep apnea in adults and children, voice related problems such as hoarseness, specialized head and neck oncology, ear and hearing disorders, balance disorders and conditions related to the nose and thyroid gland malfunction. KUTRRH emphasizes on prevention of ear disorders and hearing loss.



PICTORIAL



KUTRRH Board Chairperson, Prof. Olive Mugenda checks on the progress for construction of a bunker for the CyberKnife. The Hospital is set to have the second Cyberknife in Africa besides Egypt.



KUTTRH's CEO Mr. Ahmed Dagane held a consultative meeting with KUTRRH nurses. He urged them to remain committed to offering quality patient-centered care.



KUTRRH's medical team prepares to undertake the first aortic valve replacement surgery at the hospital.



KUTRRH team led by the Board Chairperson, Prof. Olive Mugenda after a meeting with the Pakistan High Commissioner, Her Excellency Saqlain Syeldah and the Deputy High Commissioner Mr. Muhammad Junaid. KUTRRH and the Pakistani delegation agreed on a partnership in training.



Africa Health Biz Managing Director Marloes Kibacha (Extreme left) and Business Executive Anne Ngumba during a visit to KUTRRH to learn more about the hospital and to explore possible areas of partnership.



KUTRRH hosted healthcare workers from 5 Counties. The healthcare workers had been attending a training programme sponsored by USAID. KUTRRH's biomedical engineer, Julius Nganga (centre) explains a process to the workers.



KUTRRH Board Chairperson, Prof. Olive Mugenda leads a team to check on the progress of the upcoming Breast Cancer Centre of Excellence at KUTRRH.



KUTRRH team from the Integrated Molecular Imaging Centre (IMIC) during an internal Continuous Medical Education (CME) session.



Retired KDF Staff after a meeting with a team drawn from the KUTRRH finance department. They discussed the training of KDF retirees on insurance procedures.



KUTRRH team led by CEO, Mr. Ahmed Dagane after hosting a delegation of Health care workers from 5 counties.



KUTRRH Board Chairperson, Prof. Olive Mugenda leads inspection of ongoing works at Gatundu Level 5 hospital.



KUTRRH achieved another significant milestone with the launch of the Formulary Drugs List by the CEO, Mr. Ahmed Dagane, on 3rd Aug 2022.

SUPPORTING CAPACITY BUILDING IN MEDICAL GASES MANAGEMENT



On 22nd July 2022, a team of engineers, technicians, and healthcare workers drawn from five counties visited KUTTRH to get a firsthand experience on production and management of medical oxygen.

The visit came at the tail end of a 5-day training from 18th -22nd July 2022 on Oxygen Management that was designed to inform engineers, technicians, and healthcare workers about oxygen management techniques, procedures, and safety.

The training had been organized by the USAID Global Health Supply Chain Program–Procurement and Supply Management (GHSC-PSM). The objective was to build the capacity of biomedical and healthcare workers in Oxygen management procedures. Thirty-six participants from five counties visited the Hospital as part of the course to gain hands-on experience in oxygen management and the Pressure Swing Adsorption (PSA) plant. The course was designed to increase understanding and awareness of oxygen safety for all employees who work with or around oxygen

KUTRRH has one of the most advanced medical gases plant in the region. The 650-bed capacity hospital requires continuous and large supply of medical gases, and its advanced medical gases infrastructure provides a reliable supply..

The areas visited by the team included the PSA plant (Oxygen Plant), Oxygen Manifold area, medical air, Oxygen Refilling Pump, vacuum plant, Oxygen cylinders storage area, the liquefied oxygen tank, the theatre and wards.

KUTRRH's system is centralized to supply oxygen to clinical areas in the hospital. The medical gas plant comprises of four PSA plants for oxygen production and has total capacity of 2,400 liters/min, a 20,000 liters liquid oxygen tank, three medical air plants, three vacuum plants and 850 oxygen cylinders.

The four plants are used as the primary source of oxygen for the hospital and serve all areas including ICU, A&E, theatre, wards and all other clinical areas in the hospital requiring oxygen. The liquid tank acts as secondary source of oxygen to our hospital. This is a standby source in case the PSA plants are not supplying Oxygen to hospital.

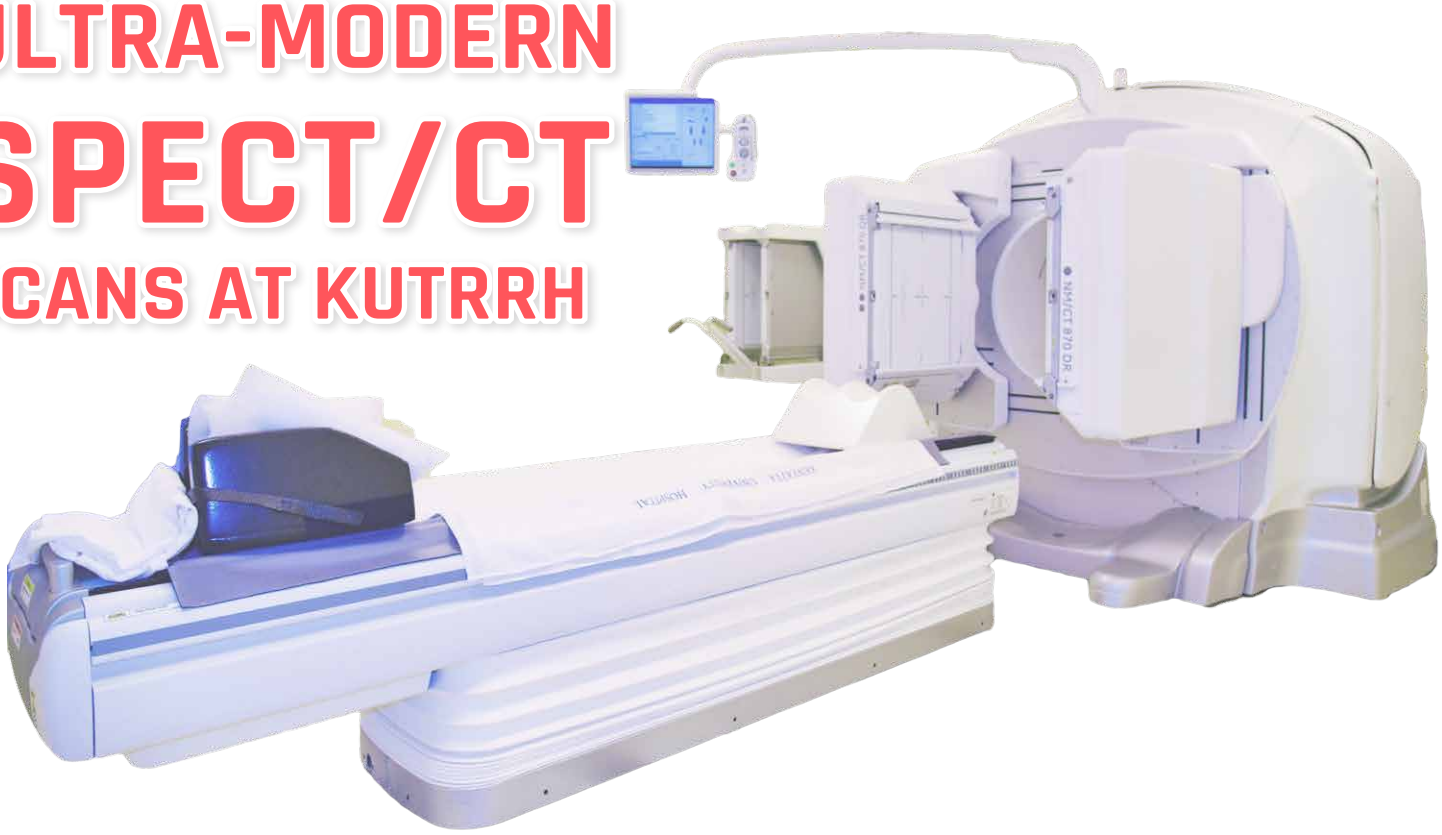
The hospital oxygen plant also supports other hospitals through its refilling station that can refill forty oxygen cylinders of a volume of 8.5m3 per day. This is helpful in eliminating oxygen shortages in other hospitals in need.

The USAID Global Health Supply Chain Program–Procurement and Supply Management (GHSC-PSM) project has been supporting several counties and was recently engaged to provide supply chain technical assistance, including activities critical to ensuring patient needs are met while advancing together the health objectives of the Government of Kenya in select counties. As part of the program, USAID is donating and shall install five PSA plants in several health facilities in Kenya namely: - Lodwar, Garissa and Marsabit County Referral Hospitals, Nandi Hills Subcounty Hospital and Mwingi Level 4 Hospital.

The partnership between KUTRRH and USAID - Afya Ugavi will go a long way in ensuring the success of oxygen management in Kenya.



ULTRA-MODERN SPECT/CT SCANS AT KUTRRH



Kenyatta University Teaching, Referral & Research Hospital (KUTRRH) announces the commencement of bone scans and other nuclear medicine procedures at the ultra-modern Integrated Molecular Imaging Center (IMIC).

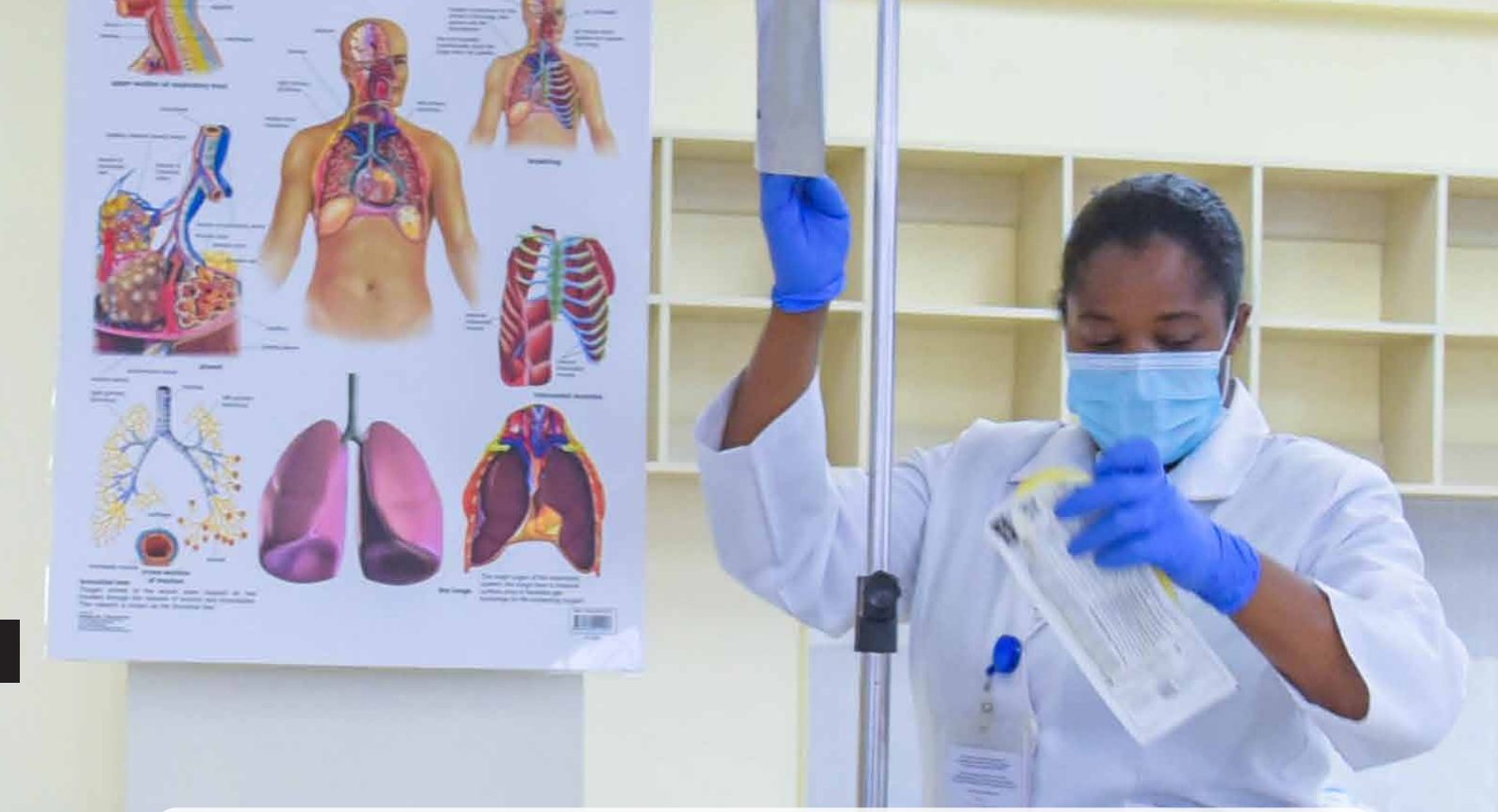
The Nuclear medicine physicians at IMIC explain that, "SPECT/CT is a nuclear medicine diagnostic technique that combines nuclear medicine imaging with gamma rays (SPECT) and anatomical imaging (CT - Computerized Tomography). It is useful for a variety of medical conditions and hence contributes to treatment planning. It widely used in dosimetry for targeted radionuclide therapies and also compliments other forms of medical imaging.

Furthermore, SPECT is well suited for certain disease conditions in terms of cost-effectiveness, availability, and clinical specificity especially when performed using the ultra-modern SPECT/CT scanners such as the one available at KUTRRH. The most common uses for SPECT include diagnoses of bone disorders, heart problems, kidney, and brain disorders where it compliments imaging findings on MRI and/or CT."

With SPECT/CT up and running, the facility has the capacity to scan most patients within the country reducing the waiting time. In collaboration with the public health insurer - National Health Insurance Fund (NHIF), pre-authorization of approved rates is done at KUTRRH while the service can also be accessed through private insurance schemes.

Routine reports are available for collection between 2 pm – 4 pm, Monday – Friday. The SPECT/CT representative images along with a DVD (containing a soft copy of images) shall be provided as soon as the scan is completed. All reports are released within 48 hours (about 2 days). Select patients may qualify for a preliminary report to be issued on the same day*.





ADDRESSING CRITICAL GAPS IN THE TRAINING OF NURSES

KUTRRH has a training institute for specialized nursing that offers higher diploma to individuals who have already acquired a diploma in nursing, are licensed and have a 2-year working experience from a recognized hospital. The current fields of specialization are oncology (cancer care) and critical care (HDU, ICU, NICU, NHDU). In September 2022, two more programs will be introduced into the system: Renal and theatre nursing.

The students are provided with quality patient-centered care training with the patient at the heart of the instruction. They are guided on how to attend to patients. The students receive personalized training as the institute is integrated with the hospital. They also provided with training as part of Continuing Medical Education (CME) and are also involved in various health forums.

Students are trained to have a global exposure and be versatile to advance in their careers. Their learning environment is very conducive and enhances students to be more knowledgeable and marketable. They use modern equipment, the state-of- the-art lecture rooms, have a skills lab, an online resource library and medical commodities at their exposure. The institution is accredited by the Nursing Council of Kenya and the students are trained by highly qualified and experienced instructors.

Apart from specialized nursing KUTRRH also offers a masters program in nursing. For doctors we offer a masters programme in surgery and another in anesthesia. In September 2022 a masters in internal medicine will be introduced.KUTRRH's Training Institute for Specialized Nursing is also an Examination Centre for doctors. Students from institutions that have a MOU with our institution are also offered attachments and internships in nursing, pharmacy and medical practice.

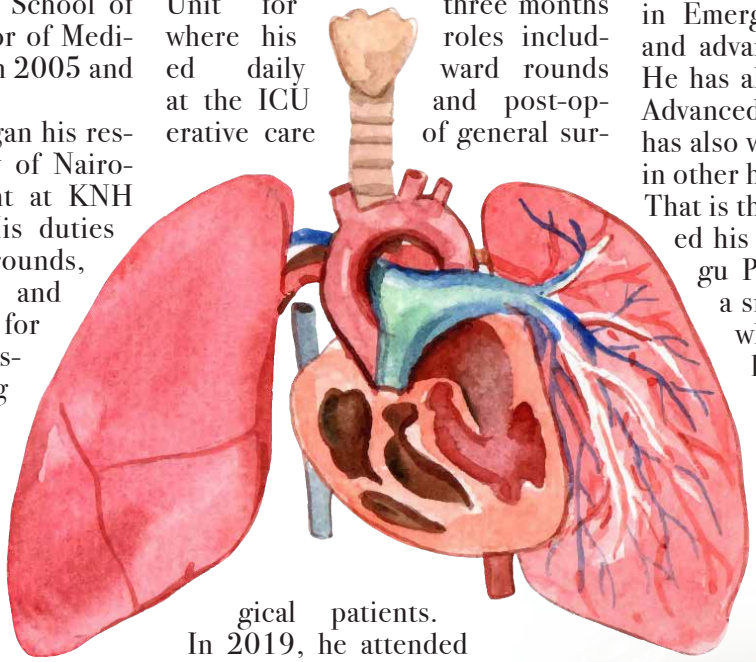
STAFF FEATURE:
Dr. Enoch Makori



Dr. Enoch Makori Nyasing'a is a Cardio Thoracic surgeon at KUTRRH's department of Thoracic and Cardiovascular Surgery. He attended Moi University's School of Medicine for his Bachelor of Medicine and Surgery between 2005 and 2011.

In 2015, Dr. Makori began his residency at the University of Nairobi's Surgery Department at KNH completing in 2021. His duties included daily ward rounds, preoperative evaluations and preparation of patients for surgery and observing, assisting and performing surgeries. He was also tasked with post-operative care of surgical patients, running the cardiothoracic surgery clinic and managing the cardiac intensive care unit. While at this, the doctor completed a one-year surgical anatomy course at the University of Nairobi;s department of anatomy.

During his residency he served in several committees at KNH which were tasked with formulation and implementation of policies. Dr. Makori rotated in the General Surgery department where his roles included daily ward rounds at the general surgical wards, preoperative evaluation and preparation of patients for surgery, observing, assisting and performing surgeries, post-operative care of surgical patients and running the surgical clinics. He also rotated in the Intensive Care Unit for three months where his roles included daily ward rounds at the ICU and post-operative care of general surgical patients.



In 2019, he attended a cardiovascular training in Taiwan National Cheng Kung University through an exchange program to learn new vascular thoracic and cardiac techniques to enable improvement of services at Kenyatta National hospital. Dr. Makori having completed his training became a consultant surgeon in 2021.

Earlier he had served as the Medical Officer in Charge of Matunda Sub-District Hospital having come from Bungoma District Hospital where he served as a Medical Officer in the Surgical Department. He had started off in the same hospital as a medical intern.

Dr Makori has undertaken trainings in Emergency and Neonatal Care and advanced cardiac life support. He has also undertaken training in Advanced Trauma Life Support. He has also worked on a part time basis in other hospitals.

That is the story of a man who started his academic journey in Irungu Primary School situated in a small hamlet in rural Kenya which witnessed his stellar performance at KCPE propel him to Nyansiongo Secondary School where the soft spoken but firm doctor scored a straight A in KCSE.



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QUALITY PATIENT-CENTRED CARE

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