



KENYATTA UNIVERSITY TEACHING, REFERRAL & RESEARCH HOSPITAL

THE CHECK UP

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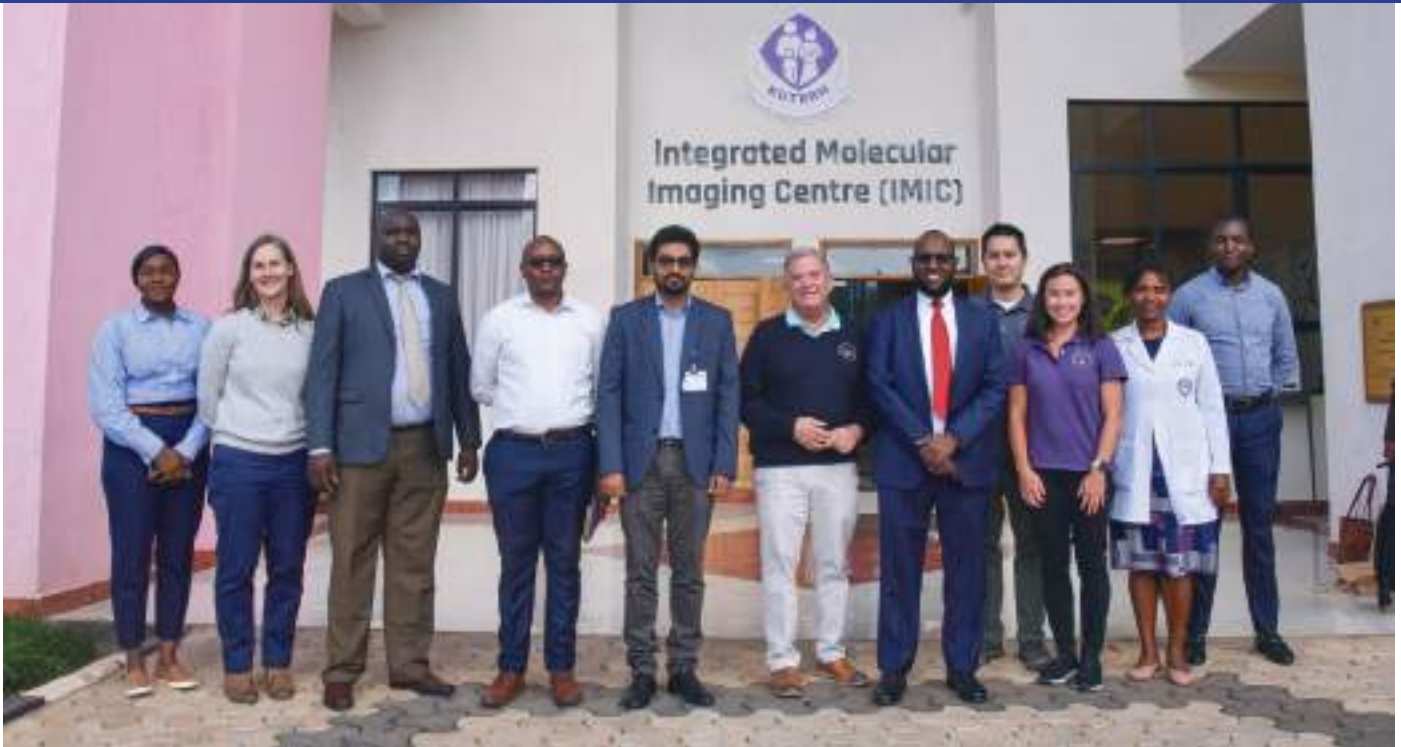
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Quality Patient Centered Care

US NUCLEAR REGULATORY COMMISSION OFFICIALS VISIT KUTRRH



A high-level delegation from the US Nuclear Regulatory Commission led by Mr. David A. Wright, Commissioner of the U.S. Nuclear Regulatory Commission, visited KUTRRH in August.

The visitors were hosted by the management of KUTRRH led by Prof. Olive Mugenda, Board Chairperson and the CEO, Ahmed Dagane.

The delegation visited the facility having been identified as one of the key hospitals that showed remarkable progress in Nuclear and Radiological safety.

The team toured the On-

cology department and interacted with staff and patients. Strategic partnerships and collaboration with various stake-



holders have been key in helping us deliver Quality Patient-Centered Care to Kenyans and beyond.

The delegation expressed their gratitude and were immensely proud of KUTRRH's achievements and milestones even as they

look forward to future partnerships and collaboration.

Obstructive Sleep Apnea: A Silent Threat to Your Health



Obstructive Sleep Apnea (OSA) is a common yet often underdiagnosed condition that can have serious implications for your health. It is characterized by repeated episodes of partial or complete obstruction of the upper airway during sleep, leading to disrupted breathing and a cascade of other health issues. While many may dismiss snoring or occasional sleep disturbances as harmless, OSA is a condition that demands medical attention because if left untreated.

OSA can increase the risk of several serious health conditions such as;

1. **Cardiovascular Health:** OSA is linked to high blood pressure, heart attacks, and strokes. The repeated drops in oxygen levels during sleep trigger stress responses in the body, which can damage the cardiovascular system.
2. **Metabolic Health:** OSA is associated with insulin resistance and weight gain, increasing the risk of Type 2 diabetes and other metabolic disorders.
3. **Mental Health:** Chronic sleep disruption from OSA can lead to depression, anxiety, and impaired cognitive function, affecting memory and concentration.
4. **Daytime Functioning:** Excessive daytime sleepiness from OSA can impair daily activities, increasing the risk of accidents and reducing work performance.
5. **Immune System:** Poor sleep quality weakens the immune system, making individuals more susceptible to infections and slower to recover from illnesses.

Causes of Obstructive Sleep Apnea

OSA occurs when the muscles at the back of the throat relax excessively during sleep, leading to the collapse of the airway. Several factors can contribute to this:

1. **Obesity:** Excess weight, particularly around the neck, can put pressure on the airway, making it more prone to collapse.
2. **Anatomical Factors:** Certain physical characteristics, such as a narrow airway, large tonsils, or a thick neck, can increase the risk of OSA.
3. **Age:** As we age, the muscles that support the airway naturally weaken, increasing the likelihood of obstruction.
4. **Gender:** Men are more likely to develop OSA than women, although the risk for women increases

after menopause.

5. **Genetics:** A family history of OSA can predispose individuals to the condition.

6. **Lifestyle Factors:** Smoking, alcohol consumption, and sedative use can exacerbate OSA by relaxing the muscles that keep the airway open.

Signs and Symptoms

OSA can manifest through a variety of symptoms, many of which may be subtle or easily overlooked:

- ▶ **Loud Snoring:** While not everyone who snores has OSA, it is a common symptom, especially if it is punctuated by gasping or choking sounds.
- ▶ **Excessive Daytime Sleepiness:** Individuals with OSA often experience persistent fatigue and drowsiness during the day, even after what seems like a full night's sleep.
- ▶ **Morning Headaches:** Recurrent morning headaches are a common sign of disrupted sleep and reduced oxygen levels during the night.
- ▶ **Mood Changes:** OSA can lead to irritability, depression, and difficulty concentrating.
- ▶ **Nocturia:** Frequent urination during the night may be linked to OSA.
- ▶ **Restless Sleep:** Frequent awakenings or the sensation of choking or gasping can disrupt sleep cycles.

Investigations

Diagnosing OSA requires a thorough clinical evaluation and specialized testing. The primary diagnostic tool is a polysomnography, or sleep study, which monitors various physiological parameters during sleep, including brain waves, oxygen levels, heart rate, and respiratory effort. This can be done in a sleep lab or at home with portable monitoring devices.

Other assessments may include:

- ◆ **Physical Examination:** An ENT specialist may examine the airway, tonsils, and nasal passages to identify any anatomical factors contributing to the condition.
- ◆ **STOP-BANG Questionnaire:** This is a widely used screening tool that assesses risk factors such as Snoring, Tiredness, observed apneas, high blood pressure, body mass index (BMI), age, neck circumference, and gender. A higher score on the STOP-BANG questionnaire indicates a greater likelihood of having OSA.

Treatment Options

The treatment of OSA varies depending on the severity of the condition and the underlying causes:

1. **Lifestyle Modifications:** Weight loss, smoking cessation, and avoiding alcohol or sedatives before bedtime can significantly reduce the severity of OSA.
2. **Continuous Positive Airway Pressure (CPAP):** CPAP is the most effective treatment for moderate to severe OSA. It involves wearing a mask connected to a machine that provides a constant flow of air to keep the airway open during sleep.
3. **Oral Appliances:** For those with mild to moderate OSA, custom-fitted oral appliances can help keep the airway open by repositioning the lower jaw and tongue.
4. **Surgical Options:** In cases where anatomical abnormalities are the primary cause, surgical interventions such as uvulopalatopharyngoplasty (UPPP), tonsillectomy, or nasal surgery may be recommended.
5. **Positional Therapy:** Since OSA can worsen when sleeping on the back, positional therapy devices can encourage sleeping on the side.

Conclusion

Obstructive Sleep Apnea is more than just a snoring problem—it is a serious health condition that requires medical attention. With proper diagnosis and treatment, those affected can improve their quality of life and reduce the risk of complications such as cardiovascular disease, stroke, and diabetes. If you suspect you or a loved one may have OSA, consult with an ENT Surgeon to explore your options and reclaim a restful night's sleep.

TRAINING AT KENYATTA UNIVERSITY TEACHING, REFERRAL AND RESEARCH HOSPITAL ON HANDLING GENDER-BASED VIOLENCE VICTIMS



Kenyatta University Teaching, Referral and Research Hospital (KUTRRH) is taking a significant step in addressing gender-based violence (GBV) by conducting a comprehensive training program for doctors in its outpatient unit. The training was officially opened by KUTRRH's Acting Deputy Director of Clinical Services, Dr. Anthony Kamau on behalf of the KUTRRH's CEO, Ahmed Dagane.

This initiative is aimed at equipping healthcare professionals with the necessary skills and knowledge to effectively support and manage victims of GBV.

One of the critical components of the training focuses on the documentation of incidents reported by GBV victims. Proper documentation is essential for ensuring that the details of the occurrence are accurately recorded. This information is vital for both medical and legal purposes, serving as a foundation for any subsequent actions. Doctors are being trained to approach this task with sensitivity, ensuring that the victims feel heard and validated.

The training also covers the procedures for gathering evidence from the victims' bodies. This includes collecting physical evidence that may be crucial in a le-

gal context. Doctors learn how to handle and preserve evidence, such as bodily fluids, injuries, and other physical signs of assault, in a manner that maintains its integrity for forensic analysis. This aspect of the training emphasizes the importance of a methodical and respectful approach to evidence collection.

Recognizing the emotional and psychological trauma experienced by GBV victims, the training includes a component on providing counselling services. Doctors are being trained to offer initial psychological support and refer victims to professional counsellors when necessary. This support is crucial for helping victims begin the healing process and navigate the complex emotions that often accompany such traumatic experiences.

An important aspect of the training is educating doctors on their role in the legal process.

This includes understanding how to present evidence in court effectively. Doctors are taught how to prepare and present medical reports, testify as expert witnesses, and handle cross-examinations. This training ensures that medical professionals can support the judicial process by providing clear and

credible testimony based on their examinations and findings.

The training addresses the medical treatment required to prevent sexually transmitted infections (STIs) and other diseases that GBV victims may be exposed to. Doctors are being trained on the appropriate use of preventive medications and other treatments to protect the health and well-being of the victims. This medical intervention is a crucial step in the comprehensive care of GBV survivors.

The training at KUTRRH represents a holistic approach to managing and supporting GBV victims. By equipping doctors with the necessary skills in documentation, evidence gathering, counselling, legal processes, and medical treatment, the hospital is strengthening its capacity to provide compassionate and effective care. This initiative underscores KUTRRH's commitment to addressing the complex needs of GBV victims and playing a pivotal role in their recovery and pursuit of justice.

WORLD BREASTFEEDING WEEK 2024



Breastfeeding is the action of feeding a baby with milk from the breast, usually directly from the breast. Between August 1st to 7th the world marked the World Breast Feeding Week whose theme was Closing the Gap: Breastfeeding Support for All.

As Kenya continues to struggle to reduce the infant mortality rate, Breastfeeding has been identified as one of the most effective ways to ensure child health and survival. The WHO recommends that breastfeeding should be done:

- ▶ Within one hour of birth
- ▶ On demand, avoiding teats, bottles or pacifiers
- ▶ Exclusively for 6 months, after which safe and nutritional-ly adequate complimentary feeds should be introduced
- ▶ Till 2 years of life or beyond.

Benefits of Breastfeeding

Breastfeeding provides various benefits as follows:

1. Baby

- ◆ Breast milk is readily available at the right temperature, is affordable, safe, clean and has antibodies which help the baby protect themselves against various infections.
- ◆ Protection against gastrointestinal infections, respiratory infections and reduces new-born mortality. The risk of mortality due to diarrhoea and other infections can increase in infants who are either partially breastfed or not breastfed at all.
- ◆ Breast milk is an important source of energy and nutrients in children up to 24 months and can provide half or more of a child's energy needs between the ages of 6 and 12 months, and one third of energy needs between 12-24 months.
- ◆ Breastfed babies are less likely to be overweight/develop obesity in childhood and adolescence. They also perform better in intelligence tests and have higher school attendance
- ◆ Breastfeeding is associated with higher income in adult life, with individual and societal economic gains as a result of improved child development and reduced health costs.

2. Mother

- ◆ Reduced risk of post-partum haemorrhage
- ◆ Reduced risk of post-partum depression and encourages bonding with improved physical and psychological health of the mother.
- ◆ Reduced risk of ovarian and breast cancer
- ◆ Reduced risk of Diabetes
- ◆ Lactational amenorrhoea – is a mode of natural birth control (though not fail-safe). The hormonal effect leads to lack of menstruation and helps in pregnancy spacing.

3. Environmental

- ◆ Eco-friendly – No carbon footprint, No packaging, No wastage.

Despite the clear benefits of breastfeeding to the infant, mother, environment and to the society at large, exclusive breastfeeding rates have remained low worldwide, with only about 44% of infants aged 0-6 months having exclusively breastfed over a period of 2015-2020. In 2023 the world-wide exclusive breastfeeding rates were at 48%, with a target set by the World Health assembly at 50% by 2025.

Kenya's exclusive breastfeeding rates increased from 32% in 2008 to 61% in 2014, and has recently seen a slight drop to 60% in 2022. The statistics vary depending on the age of the baby, with 84% babies being exclusively breastfed for the 1st month, 63% for 2-3 months and 42% for 4-5 months.

Challenges to breastfeeding include,

- ◆ Promotion of breastmilk substitutes.
- ◆ Need to return to work and breastfeed-ing-unfriendly workplace policies.
- ◆ Lack of knowledge about benefits of exclusive breastfeeding.
- ◆ Lack of societal support.

This year the WHO, UNICEF and the Ministry of Health have mounted a campaign to celebrate breastfeeding mothers in all their diversity, throughout their breastfeeding journeys, while showcasing the way families, societies, communities and health workers can help support every breastfeeding mother. Breastfeeding can act as an equalizer in our society and efforts must be made to ensure everyone has access to breastfeeding support and opportunities. No one should be left behind, especially vulnerable mothers who may need additional support to reduce breastfeeding inequalities. Breastfeeding inequalities exist amongst various ages (maternal and infant), different socio-economic groups, religions, parental education levels.

Mothers and families need to be supported for their children to be optimally breastfed.

Actions that help to protect, promote and support breastfeeding include:

- ▶ Adoption of policies such as the International Labour Organization's "Recommendation No. 191" which complements "Convention No. 183" by suggesting longer duration of leave and higher benefits. In Kenya, mothers are allowed 3 months' maternity leave and thereafter annual leave can

be encouraged to allow for better chances of success with regards to exclusive breastfeeding.

- ▶ Adoption of the "International Code of Marketing of Breast-milk Substitutes" and subsequent relevant World Health Assembly resolutions, which has been done by the Kenyan Government.

- ▶ Implementation of the "Ten Steps to Successful Breastfeeding" specified in the Baby-Friendly Hospital Initiative.

- ▶ Provision of supportive health services with infant and young child feeding counselling during all contacts with caregivers and young children, such as antenatal and postnatal care, well-child and sick child visits, and immunization.

In Kenyatta University Teaching, Referral Research Hospital rooming in is practised in the maternity unit and breastfeeding on demand is encouraged. Parents receive support from the mid-wives, nutritionists and lactation specialists.

- ▶ Community support, including mother support groups and community-based health promotion and education activities are very important. The Breastfeeding Mothers Bill requires employers to provide support facilities to breastfeeding mothers, including flexible working arrangements, lactation stations and staff to care for the babies

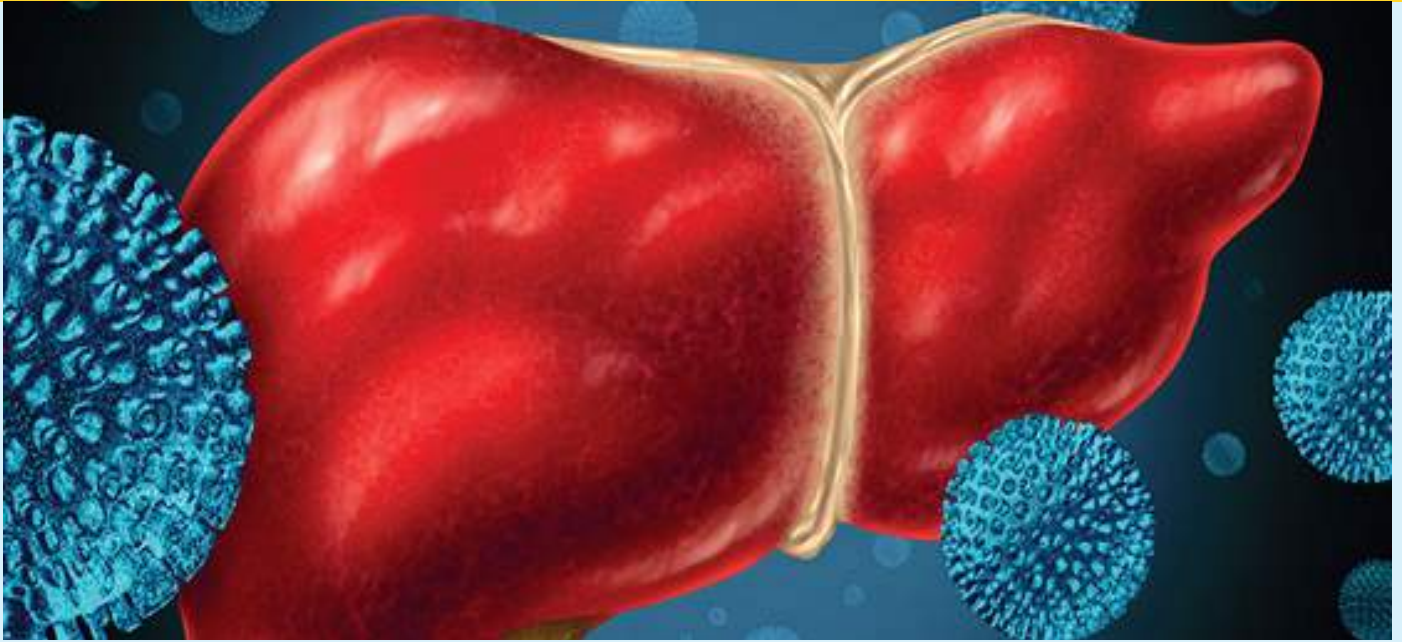
Breastfeeding remains the preferred mode of infant feeding in almost all difficult situations, including:

- Low birth weight
- Premature infants
- Mothers living with HIV, more so in settings like Kenya where mortality due to diarrhoea, pneumonia and malnutrition remain prevalent.
- Adolescent mothers
- Infants and young children who are malnourished
- Families suffering the consequences of complex emergencies,

These families and children require special attention and practical support.



KUTRRH's ROBUST HEPATITIS TREATMENT PROGRAM



At the end of every July the world marks the World Hepatitis day. Hepatitis is a medical condition which affects the Liver. It causes inflammation and health consequences which may require the attention of a health practitioner or admission to a hospital. Hepatitis is caused by toxins e.g. drugs like paracetamol, alcohol, infections among others. The most common cause is a group of viruses which cause inflammation of the liver and are classified as Hepatitis A-E viruses.

Hepatitis A and E are transmitted through infected stool coming into contact with food substances. They cause fever, diarrhoea, Vomiting, yellowness of eyes and abdominal pain. Hepatitis B and C are transmitted through sexual contact with an infected person, receiving infected blood or blood products or through infected needles. The symptoms are similar to the hepatitis A virus, but patients may not have predominant diarrheal symptoms.

Treatment of Hepatitis viruses include review by a medical practitioner, controlling vomiting and diarrhoea as well as using specific medicines if available. Currently we have medicines to control Hepatitis B and C only. These med-

icines are available at all level 6 hospitals including KUTRRH.

KUTRRH is committed to timely diagnosis and treatment of such patients through our experienced liver specialists.

It is said: Prevention is better than cure. To prevent Hepatitis, take care of general hygiene includ-

ing hand washing, washing food properly before eating and avoiding unclean raw food. It is important also to practice safe sex, avoid recreational drug use and medics screen blood products for the hepatitis Virus before transfusion. An important population is expectant mothers who should be screened for hepatitis B and C viruses before delivery to avoid transmission to their infants.

As KUTRRH has a robust Hepatitis treatment program that takes care of patients infected with the hepatitis B virus. In addition, our doctors are committed to providing the best possible care through our inpatient and outpatient clinics.

Take home message: Get tested today! Viral hepatitis is preventable and manageable if caught early.



PICTORIAL



KUTRRH, led by the Director of Finance, Planning, and Partnerships, Dr. Murithi Gituma (3rd right), hosted a delegation from Poland Polich Chamber of Commerce/ Voivodeship Hospital, and KNCCI, led by the Vice President, Mr. Witold Karczewski (2nd right). The meeting centered on exploring opportunities for collaborations and partnerships, among other discussions.



The Management of Kenyatta University Teaching, Referral and Research Hospital led by the Board Chairperson Prof. Olive Mugenda and the CEO Ahmed Dagane after a meeting with, The Governor of Kiambu County, H.E Kimani Wamatangi (centre). The meeting centered on the ongoing collaboration between KUTRRH and Gatundu Level 5 Hospital.



Prof. Olive Mugenda (centre) and KUTRRH's CEO Ahmed Dagane (2nd right) and members of staff with Mr. David Wright (3rd right) and delegation from the US Nuclear Regulatory Commission on a visit to KUTRRH.



PICTORIAL



KUTRRH, led by Director Finance, Planning and Development Dr. Muriithi Gituma, on behalf of the CEO Ahmed Dagane, hosted a delegation from Apollo Hospitals from India led by the President – Group Oncology & International Apollo Hospitals Enterprises Limited’ Dinesh Madhavan (far right). Apollo Hospitals has been KUTRRH’s long-standing partner in matters of Oncology and Renal.



KUTRRH hosted a delegation of board members from Jaramogi Oginga Odinga Teaching & Referral Hospital (JOOTRH), Kisumu County who had visited the hospital for a knowledge exchange program.



Kenyatta University Teaching, Referral and Research Hospital hosted representatives from the World Bank-Ministry of Health. The team of partners was led by Dr. Ann Ng’ang’a (centre) from the Ministry of Health. The team was received by the KUTRRH’s CEO, Ahmed Dagane (centre) and some members of the Hospital Management. The team was in the Hospital to inspect various projects supported by the World Bank.

KUTRRH COMMITTED TO CANCER TREATMENT



1st August is World Lung Cancer Day. Cancer is a major societal, public health, and economic problem in the 21st century, accounting for nearly 10 million deaths in 2020 and responsible for almost one in six deaths from non-communicable diseases (NCDs) worldwide.

Lung cancer is a type of cancer that starts when abnormal cells grow in an uncontrolled way in the lungs. It is a serious health issue that can cause severe harm and death.

Lung cancers are traditionally divided into non-small cell carcinoma (NSCC) and small cell lung carcinoma (SCLC), with the former accounting for 80% of the cases and the latter accounting for the remaining 20%.

According to GLOBOCAN 2022, estimates produced by the International Agency for Research on Cancer (IARC) and disseminated as Cancer Today on the Global Cancer Observatory, lung cancer is the leading cause of cancer morbidity and mortality. It is responsible for close to one in eight cancers diagnosed globally and one in five cancer deaths. The disease ranks first among men and second among women for both incidence and mortality.

According to the Kenya National Cancer Control Strategy 2017-2022, lung cancer accounted for 794 cases with 729 deaths and a prevalence of 1.75 per 100,000 translating to a case fatality of 92%.

Risk factors of lung cancer include tobacco use, Radon exposure, Exposure to second-hand smoke, Family History of Lung Cancer, history of lung disease such as Chronic Obstructive Pulmonary Disease and Pulmonary Fibrosis. Occupational Exposure to Carcinogens is another risk factor of lung cancer. Lung carcinogens include arsenic, asbestos, beryllium, cadmium, chromium, coal smoke, diesel fumes, nickel, silica, soot, and uranium.

Symptoms of Lung cancer include:

- Persistent cough
- Chest pain
- shortness of breath
- coughing up blood (haemoptysis)
- fatigue
- weight loss with no known cause
- Persistent lung infections

Lung cancer treatment is dependent on the stage of the disease.

Surgery, Radiotherapy, and systemic therapy (chemotherapy, targeted therapy, immunotherapy) are the three modalities most used to treat patients with lung cancer. They can be used either alone or in combination depending on the disease status.

As an institution KUTRRH can provide all the known modalities of treatment to ensure better outcomes in patients diagnosed with cancer. Moreover, we have sophisticated radiotherapy equipment that can provide precise and accurate delivery of radiation to a

target(tumor).

Unfortunately, the majority of lung cancer patients present at an advanced stage thereby reducing their overall survival even with treatment. Thus, screening and early diagnosis is key in ensuring better outcomes for patients.

Low-dose computer tomographic (LDCT) has been approved by National Comprehensive Cancer Network (NCCN) as a tool for screening among high risk groups such as those aged above 50 years and those with more than 20-pack year smoking history. Screening reduces lung cancer-specific and all-cause mortality among high-risk individuals.

It is important to note that screening for lung cancer is only helpful if all the components of care are available and affordable, such as safe, effective, high-quality treatment.

Lung cancer prevention is an attractive goal. Smoking cessation is an important step towards this goal as tobacco smoking directly accounts for about 81% of all lung cancer-related deaths worldwide. Minimizing exposure to environmental risk factors is also vital in preventing lung cancer.

The key to overcoming barriers to effective prevention and treatment in resource-restricted settings involves cooperation between multiple organizations, including medical societies, patient groups, pharmaceutical companies and regulatory agencies.

There is hope for patients diagnosed with lung cancer because we are able to cure lung cancer at an early stage and treat cancer at a later stage. We are in an era where we have newer and better modalities of treatment that could help patients in general to live longer and live better.

Bridging the Gap: RAD-AID Pioneering Nuclear Medicine Training at KUTRRH



This July, Kenyatta University Teaching, Referral & Research Hospital (KUTRRH) had the distinct privilege of receiving specialized nuclear medicine training from RAD-AID International, a non-profit organization based in Washington, DC. RAD-AID is dedicated to enhancing access to radiology services in low- and middle-income countries and underserved regions worldwide, and its commitment to KUTRRH is a testament to its mission.

The training, expertly delivered by Mr. Kevin Bahr and Mrs. Rebekah Bahr from Vancouver, Canada, marked the third mission RAD-AID has conducted at KUTRRH in less than two years. This series of educational interventions underscores RAD-AID's dedication to building sustainable radiology capacity in Kenya.

Focusing on critical areas of nuclear medicine imaging and therapy, the training covered patient care, dosimetry, radiation protection, dosage and

procedure optimization and workflow enhancement. Of particular significance was the emphasis on nuclear medicine theranostics—a cutting-edge technique that combines diagnosis and treatment using the same radiotracer. This dual approach not only streamlines the patient experience but also improves the precision and effectiveness of treatments of various conditions like prostate cancers, Neuro-endocrine tumours and thyroid cancers.

The timing of this training could not have been more fortuitous. KUTRRH is on the brink of launching its nuclear medicine theranostics program, and the knowledge and skills gained from this training

are set to play a pivotal role in its success. With the expertise shared by the Bahrs, KUTRRH is poised to become a leader in nuclear medicine theranostics in the region.

RAD-AID International's ongoing partnership with KUTRRH is more than just a training initiative; it is a transformative journey that is bridging the gap between potential and practice in Kenya's healthcare landscape. The future of nuclear medicine at KUTRRH looks brighter than ever, thanks to RAD-AID's unwavering support and commitment.





CANCER

In Children Is Treatable

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Paediatric Oncology Clinic

NHIF

Afya Yetu. Bima Yetu

NHIF supports treatment of cancer in children.

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