

**KENYA ASSOCIATION OF RADIOLOGISTS**



# **KAR ANNUAL SCIENTIFIC CONFERENCE**

**28th–31st May 2026**

**THEME: Empowering Radiology: Bridging the Gap**

**PridelInn Convention  
Center, Shanzu Mombasa**

# **SCIENTIFIC PROGRAM**



## Venue & Location

The KAR Annual Scientific Conference will be held at Pride Inn Conventional Centre, Mombasa, located a few minutes' drive from Mombasa City Centre. Mombasa is a vibrant city in Coastal Kenya, known for its hospitality and growing medical community. The commonly spoken languages are English and Kiswahili.

*The conference and training sessions will be conducted in English only.*

*The country telephone code is +254 for mobile numbers and 041 for Mombasa landlines.*



## Currency:

The local currency is the Kenya Shilling (KES). Major hotels and establishments accept card payments, and ATMs are readily available in Mombasa.



## Climate:

During May, Mombasa experiences average daytime temperatures of 27°C, with occasional light showers and cooler evenings around 16°C. Delegates are advised to carry Portable fans

# KAR 2026 Annual Scientific Conference



## Accommodation:

Pride Inn Conventional Center,  
Shanzu Mombasa  
(Conference venue)  
+254 723 634 669

Continental Hotel  
+254 726 830 732

*All hotels offer comfortable lodging and easy access to the conference venue. Kindly contact the hotels directly to make your reservation. For additional assistance, feel free to reach out to the conference organisers.*



## CPD Points:

CPD points will be awarded daily via email. Delegates are encouraged to register on the link to ensure correct caption on email address.



## Personal Insurance and Safety:

Delegates are responsible for arranging their own medical and travel insurance. Mombasa is generally safe during the day, especially around the city centre, hotels, and conference venue. For visits beyond the hotel area, especially on foot, please seek advice from the hotel or event organisers for guidance.



## Transport and Airport Transfers:

For local transportation and airport transfers in Mombasa, delegates may consider the following options:

Ride-hailing services such as Uber or LittleCab, available via app stores.

Hotel-arranged transfers – check with your respective hotel.

Direct taxi and airport pick-up/-drop-off via  
+254 705 816 870

*For further support, contact the KAR conference organisers:  
Medics Management Services Kenya  
Email: [info@mmskenya.co.ke](mailto:info@mmskenya.co.ke)  
Call: +254 726 830 732*



## Parking:

Complimentary parking is available for all registered delegates at the venue. For any assistance, please consult the organisers at the registration desk.



## WiFi:

Complimentary WiFi will be available at the conference venue. Access credentials will be provided at the registration desk.



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## Sponsors & Exhibitors

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## KAR ANNUAL SCIENTIFIC CONFERENCE

### KAR Chairman's Conference Message



**Dr. Kevin Ombati**

*KAR President*

Dear Members, invited guests and partners, It is my great honor and privilege, on behalf of the Kenya Association of Radiologists, to warmly welcome you all to the KAR Annual Scientific Conference 2026 here in Mombasa.

This year's conference, held under the theme **"Empowering Radiology: Bridging the Gap,"** brings together a remarkable community of radiologists, clinicians, researchers, industry partners, and trainees from across Kenya, the region, and beyond. Your presence here reflects a shared commitment to advancing the practice of radiology and improving patient care through innovation, collaboration, and continuous learning.

As we gather over the next few days, we are presented with an invaluable opportunity to:

- Exchange knowledge and experiences
- Explore emerging technologies and evolving trends in imaging
- Strengthen professional networks and collaborations
- Reflect on how best to address the gaps in access, training, and service delivery within our healthcare systems

Radiology continues to play a central and transformative role in modern medicine. From diagnostics to interventional procedures, our field is at the forefront of improving clinical outcomes. However, as we celebrate these advancements, we must also remain mindful of the disparities that exist – in access to imaging services, training opportunities, and technological resources. This conference challenges us to actively seek solutions that will bridge these gaps and ensure equitable healthcare for all.

I would like to extend my sincere appreciation to:

- The Scientific Committee for curating a rich and engaging program
- The KAR Council members for their tireless efforts in planning this conference
- The Website Committee for rebranding our website
- Our partners and sponsors whose support has made this event possible
- And each one of you, our delegates, for your continued dedication to excellence in radiology

To our international guests, we are truly honored by your presence and contribution. Your insights enrich our discussions and strengthen global collaboration.

As we engage in the sessions, workshops, and discussions ahead, I encourage you to participate actively, share your perspectives, and take full advantage of the learning and networking opportunities available.



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I would also like to encourage all delegates to take time to visit the sponsor exhibition booths. These partners play a vital role in advancing radiology through innovation, technology, and support, and the exhibition area offers a valuable opportunity to engage with the latest solutions and build meaningful collaborations.

Beyond the scientific program, I also invite you to experience the beauty and hospitality of Mombasa, as we foster not only professional connections but also lasting friendships.

In closing, I wish you a productive, insightful, and enjoyable conference.

Once again, welcome to the **KAR Annual Scientific Conference 2026**.

Thank you.



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## KAR ANNUAL SCIENTIFIC CONFERENCE

### Chair, Scientific Committee Message



#### **Dr. Wangari Maina**

*KAR Vice President/  
Chair scientific  
Committee*

Dear Colleagues, Partners, Distinguished Guests, Ladies and Gentlemen,

It gives me great pleasure to welcome you to the Kenya Association of Radiologists (KAR) Annual Scientific Conference 2026 taking place from 28th to 31st May 2026 at the Pridelnn Convention Centre, Shanzu – Mombasa.

On behalf of the Scientific Committee, I extend our sincere appreciation to all speakers, moderators, faculty, delegates, sponsors, and organizing teams whose dedication and contribution have made this conference possible.

This year's scientific program has been carefully curated to provide an engaging, relevant, and forward-thinking platform for learning, collaboration, and professional growth. The sessions encompass a wide range of topics in diagnostic and interventional radiology, emerging technologies, research, multidisciplinary collaboration, and evolving trends in patient care. We are particularly pleased to host distinguished local, regional, and international faculty who will share their expertise and experiences with us.

As radiology continues to evolve rapidly, forums such as this conference remain critical in advancing knowledge exchange, strengthening professional networks, and fostering innovation within our practice. We encourage all participants to actively engage in the scientific discussions, workshops, and interactive sessions throughout the conference.

I would also like to acknowledge the tremendous support received from our partners and sponsors, whose collaboration continues to contribute significantly towards advancing radiology education and practice in Kenya and the region.

We hope that this conference will not only enrich your professional experience but also provide an opportunity to build meaningful collaborations and lasting connections.

I wish you a productive, insightful, and enjoyable conference.

Kind regards,

## Advancing Radiology. Empowering Care.

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# KAR ANNUAL SCIENTIFIC CONFERENCE

## KAR Officials



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President



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Vice President



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**Dr. Kelvin Murithi**  
Council member



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## KAR ANNUAL SCIENTIFIC CONFERENCE

### KAR Speakers Bios



#### **Dr. Merel Huisman**

Dr. M. Huisman is an attending cardiovascular and musculoskeletal radiologist at Radboud University Medical Center. She holds a PhD in translational research on medical devices and a Master's degree in clinical epidemiology. She is Vice President Elect of EuSoMII for 2025–2027, Chair of the AI Task Force of the BioMed Alliance in Europe, and a member of the ESR eHealth and Informatics Subcommittee. She served as Chair of the ECR 2025 Imaging Informatics and Artificial Intelligence and Machine Learning programme and is a committee member of the Federation of Medical Specialists in the Netherlands. Her work focuses on medical AI as a regulated clinical technology, with recognized expertise in standardization, clinical validation, and post market evidence generation. Her research centers on real world evaluation of commercially available AI systems and the development of non interpretive clinical use cases, with the aim of improving healthcare in a responsible and sustainable manner.

## AstraZeneca's commitment to fighting cancer

To co-create a stronger cancer care ecosystem in Africa, together with external partners, enhancing access to diagnostics and innovative treatments.



### BUILDING CAPACITY & CAPABILITIES

**3000+**

- MDT Specialists trained through cross-border Center of Excellence programs.

**4000+**

- Allied HCP trainings through virtual academies and learning programs.
- **Research** - Partnerships to support Local data generation and RWE in Lung, Breast, Prostate Cancer & Ovarian Cancers.



### ENHANCING SCREENING & DIAGNOSTICS

- **First in-Country EGFRm testing** localization, for Lung Cancer in **Kenya, Nigeria, Ivory Coast & Ghana.**
- **BRCA 1 & BRCA 2 Testing localization in Kenya:** in Partnership with Aga Khan University Hospital, Nairobi. (Breast, Prostate and Ovarian cancers).
- **Upgrading Prostate Cancer Diagnosis: 7 Prostate Cancer Ultrasound Guided Biopsy Machines** placement in 7 public referral hospitals in Kenya and PSA Screening Partnership with NCI Kenya and Kenya Association of Urological Surgeons (KAUS).
- **Ethiopia Breast & Prostate Cancer Screening Program** in partnership with Ethiopian MOH, Spirit Health Foundation and Global Health Partnerships.



### EMPOWERING PATIENTS

- Partnerships for advocacy & Patient support with government & non-governmental organizations to enhance disease awareness and early detection.



### ENABLING ACCESS TO MEDICINES

- Innovative access solutions and key partnerships for sustainable health equity. (e.g NURU PAP in Kenya).





## Pre-Congress Workshops

Thursday 28th May 2026

TIME	TOPIC	PRESENTER
<b>WORKSHOP 1 - LUNG BIOPSIES   MOMBASA HOSPITAL</b>		
9:00am – 14:00pm	Arrival	
12:00pm – 17:00pm	Pre - Congress (Lung biopsy)	Chairs: Dr Bashaeb/ Dr Swaleh/Dr Wangari
	<b>LUNCH</b>	
	Introduction	
	Case discussions	Dr Mwangi, Dr Naushad, Dr Muruka, Dr Bashaeb, Dr Murayi
	Lung biopsy procedures- Hands on	

### WORKSHOP 2 | PRIDE INN CONVENTION CENTRE

## KAR Conference Program

### CONFERENCE DAY 1 - Friday 29th May 2026

#### 1st session - ALL

*Chairs: Dr Rosellyne Okello, Dr Kelvin Muriithi, Dr Mercy Nyanchama*

08:30am – 08:40am	Welcoming Remarks	Dr. Kevin Ombati
8:40am – 8:50am	Introduction to the Scientific Program	Dr. Wangari Maina
8:50am - 9:05am	Brain Infection in a Pediatric Patient: Mafucci syndrome	Dr Rosemary Akora
9:05am - 9:20am	Insights from the ABCCCP program implementing clinical breast exams and ultrasound	Dr Loice Sitienei
9:20am -09:50am	AI in clinical practice , structured reporting, ethics and sustainability	Dr. Merel Huisman
09:50am -10:05am	Questions and Answers	
10:05am -10:35am	Effective radiologist wellness	Dr Chibanzi Mwachonda
10:35am -10:45am	Questions and Answers	
10:45am -11:00am	Radiology AI Developer & Researcher.	Dr. Pouria Rouzrokh, MD, MPH, MHPE
11:00am - 11:30am	<b>Tea Break</b>	



## KAR Conference Program

### CONFERENCE DAY 1 - Friday 29th May 2026

TIME	TOPIC	PRESENTER
<b>2nd session - BREAK-OUT ROOM 1 AND ROOM 2</b>		
<b>BREAK-OUT ROOM 1</b> <i>Chairs: Dr Kennedy K'Owiti, Dr Zablon Ogutu, Dr Rose Nyabanda</i>		
11:30am -12:50pm	<b>Abstract presentations ROOM 1 (10 mins each)</b>	
	Multidisciplinary radiology approach to community acquired S. Aureus pneumonia	Dr Brian Bomett
	Invasive Scedosporium Apiospermum brain infection in a paediatric patient	Dr Benjamin Wanyonyi
	The drivers of breast cancer screening among women receiving radiological services at KNH with emphasis on the role of healthcare Worker	Dr Saada Mohamed
	Spectrum of sonographic findings seen in dysfunctional dialysis AV fistulas and grafts in patients receiving dialysis at K.N.H	Dr Derick Onchiri
	Radiologic-pathologic concordance of stereotactic guided breast biopsy at a tertiary hospital in sub-saharan Africa	Dr Calvin Carlos
	Advancing radiotherapy in Kenya; Progress, challenges and recommendations/ The landscape of Radiology in Kenya over the last 10 years	Whitney Mabwi
	AI – Friend or foe	Dr Mthokosizi Moyo
	Impact of Covid-19 on development of pulmonary fibrosis	Dr Alex Githinji
12:50 - 13:05pm	Questions and Answers	
<b>BREAK-OUT ROOM 2</b> <i>Chairs: Dr Patricia Othieno, Dr Ester Lazaro, Dr Nondi</i>		
11:30am -12:50pm	<b>Abstract presentations ROOM 1 (10 mins each)</b>	
	Implementing Teleradiology in Kenya	Dr Gilbert Wakwelo
	Knowledge and perspectives of Residents and Radiologists on MDTs	Dr Alma Laibon
	Utility of US in evaluating elbow synovitis in Rheumatoid arthritis	Dr Sharon Bisieri
	The prevalence and radiological patterns of Interstitial Lung Disease in Connective tissue lung disease in patients at KNH	Dr Taleni Shafashike



## KAR Conference Program

CONFERENCE DAY 1 - Friday 29th May 2026		
TIME	TOPIC	PRESENTER
2nd session - BREAK-OUT ROOM 1 AND ROOM 2		
<b>BREAK-OUT ROOM 2</b>	<i>Chairs: Dr Patricia Othieno, Dr Ester Lazaro, Dr Nondi</i>	
	MpMRI vs bpMRI for detection of clinically significant prostate cancer	Dr Steven Odet
	Intracranial sequelae of invasive acute sinusitis in a pediatric male: clinical challenges and outcomes	Dr Doreen Mkasi
12:50pm - 13:05pm	Questions and Answers	
13:05pm - 14:05pm	<b>LUNCH BREAK</b>	

3rd Session- ALL - <i>Chairs: Dr.Naushad, Dr Margaret Macharia, Dr. Micah Silaba</i>		
14:15pm -14:30 pm	Role of MRI in renal masses: simplified	Dr Mohamed Swaleh
14.30pm– 14:45pm	Percutaneous transhepatic variceal embolization	Dr Benjamin Wanyonyi
14.45pm– 14:55pm	Industry- AKUH- Think like a physician, see like a team: Radio-pathological correlation in complex gynaecological malignancies	Dr E. Masara, Dr. J. Wawire
14:55pm - 15:10pm	US guided microwave ablation of thyroid nodules	Dr Jasper Muruka
15:10pm - 15:25pm	Radiology and the environment	Dr. Kevin Ombati
15:25pm - 15:40pm	Percutaneous Biliary Stenting at Kenyatta University Teaching, Referral and Research Hospital- A Case Series and Review of Outcomes and Challenges	Dr Fiona Anyumba
15:40pm -15:50 pm	Questions and Answers	
15:50pm - 16:00pm	Radio-Sonographer -advances in AI-powered imaging using ultrasound systems	Geoffrey Obaka Computech
16:00pm - 16:10pm	Industry presentation	GE
16:10pm - 16:25pm	SORK address	
	<b>Conference group photo</b>	
16:35pm - 16:55pm	<b>LUNCH BREAK</b>	
16:55pm - 19:00pm	Plenary session: KAR affairs/Special GM	KAR Executive council



## KAR Conference Program

### CONFERENCE DAY2 - Saturday 30th May 2026

TIME	TOPIC	PRESENTER
<b>4th Session - Chairs: Dr Nuru, D Herbert Murayi, Dr Mercy Nyanchama</b>		
08:30am - 08:35 am	Welcome remarks	
08:35 am - 08.50am	Bridging the Gap in Patient Care: The Crucial Role of Early Interventional Radiology Referral	Dr. Felix Githui
08.50am - 09:05am	Imaging of the sacro-iliac joint: The hidden cause of back pain	Dr. Kavulani Mutiso
09:05am - 09:35am	AI-associated CT reporting	Merel Huisman
09:35am - 09:45am	Questions and Answers	
09:45am -10:00am	Driving Diagnostic confidence with Ultravist and Gadovist.	Saira Ismail DP WORLD/Bayer
10:00am -10:25am	Diagnostic gaps-Personal patient journey and learning points	Dr. Nashat Nur
10:25am - 11:00am	<b>Tea Break</b>	
<b>5th Session - Chairs: Dr. Ombati, Dr Wangari, Dr Umara</b>		
11:10am - 11:40am	Responsible AI for Radiology in LMICs	Prof Merel Huisman
11:40am - 12:50pm	Plenary session ( Strengthening equitable access to diagnostic imaging, a key contributor to Universal health coverage ) Panelists: SHA , NCI, Sunview, Radiology managers / facility owners / Benefits package and Tariffs Advisory Panel (BRITAP), Astrazeneca, GE	
12:50pm - 13:00pm	Industry presentation	Fujifilm
13:00pm – 14:00pm	<b>LUNCH</b>	



## KAR Conference Program

### CONFERENCE DAY2 - Saturday 30th May 2026

TIME	TOPIC	PRESENTER
<b>6th Session</b>		
<i>Chairs; Dr Hudson Simiyu, Dr Ernest Kabuta, Dr Brian Nyakina, Dr Norah Tharamba</i>		
14:00pm -14:15pm	Goats at a Leopards' Party: A Systematic Review of Cognitive Biases in Radiology	Dr Taleni
14:15pm - 14:25pm	Industry presentation	Astrazeneca
14:25pm -14:40pm	Machine learning in radiology- convolutional neuronal networks	Dr Mthokosizi Moyo
14:40pm - 14:50pm	Interstitial lung disease	Dr Lynet Barasa
14:50pm - 15:05 pm	Role of IR in UGIB	Dr Muhammad Bashaeb
15:05pm – 15:20pm	The KNH experience in CT Coronary Angiograms	Dr Maxwell Gachie
15:25pm - 15:40pm	Questions and Answers	
15:40pm - 15:50pm	Industry presentation	UNITED IMAGING
16:10pm - 16:25 pm	Guiding salvage therapy decisions: The emerging role of the PI-RR Scoring System in Post-Radiotherapy Prostate MRI	Dr Alel Abrar
16:25 -16:40pm	Questions and Answers	
16:40 -17:00pm	Conference announcements	
	Closing Remarks	Dr. Kevin Ombati Chairperson - KAR
	<b>TEA BREAK</b>	
19:00pm	GALA DINNER/Award ceremony/KAR TRIVIA	Dr Kevin Ombati

PASSION FOR  
*Change*





## ABSTRACTS

### 1. AUTHOR: Dr. Doreen Mkasi

#### **Intracranial Sequelae of invasive acute Sinusitis in a Pediatric Male: Clinical Challenges and Outcomes**

##### **Background:**

Complicated acute rhinosinusitis has become relatively uncommon in the antibiotic era, most often caused by bacterial pathogens and rarely by fungi. Despite its rarity, it carries significant morbidity and can progress rapidly to mortality if not promptly recognized. Pediatric male patients are particularly predisposed, with orbital complications most frequent, followed by intracranial and osseous involvement.

##### **Case Presentation:**

A 14 year old male presented from a peripheral facility with severe headache, fever, and a generalized tonic clonic seizure, followed by confusion. Initial management included diazepam and antipyretics. On examination, confusion was the only notable finding. Empiric anti-meningitic and antiepileptic therapy was initiated.

Laboratory evaluation revealed leukocytosis. A CT scan demonstrated acute sinusitis involving the bilateral frontal, anterior ethmoidal, left maxillary, and sphenoid sinuses, with obliteration of the left perimaxillary fat plane and minimal maxillary bone erosion. A small left frontal convexity subdural collection with an air locule suggested a subdural abscess. CSF analysis showed leukocytosis, elevated lactate and protein, with normal glucose; cultures were negative.

On day two, the patient experienced recurrent seizures, right hemiparesis, mutism, and excessive drowsiness. MRI demonstrated extensive left fronto-temporo-parieto-occipital subdural empyemas with redistribution to the right frontal and parafalcine regions, associated with early cerebritis and meningitis. Emergency left craniectomy and evacuation of the empyemas were performed.

The ICU course was complicated by anemia, leukocytosis, thrombocytosis, electrolyte imbalances, and hypotensive episodes. Postoperatively, surgical site infection required debridement; cultures grew *Streptococcus constellatus* sensitive to penicillin and metronidazole. Endoscopic sinus surgery with maxillary antrostomy, ethmoidectomy, and frontal sinusotomy was performed within one week.

Two weeks later, imaging revealed recurrent subdural and paramedian empyemas with mass effect, necessitating a third surgery and external ventricular drain placement. Repeat CSF cultures grew *Escherichia coli*. Subsequent imaging identified a new acute left cerebral convexity extra-axial hematoma, which gradually decreased in volume. The patient was eventually stabilized and transferred to the pediatric high-dependency unit where they continue to recover.

##### **Conclusion:**

This case underscores the devastating potential of invasive sinusitis and its intracranial complications, highlighting the high morbidity and risk of mortality. Early recognition and aggressive management are critical to improving patient outcomes.



## ABSTRACTS

### 2. AUTHOR: Dr. Mthokosizi Moyo

#### Machine Learning in Radiology- Convolutional Neuronal Networks

**Abstract:** There is need to sensitize Radiologists and Radiology residents in what AI can do to make their work easier and improve the quality of work. The technology is evolving and getting better each day. Radiologists cannot afford to ignore this advancement in technology. It is almost certain that every Radiologist will use AI in their practice from now on, therefore, it is paramount that Radiologists understand how these models work, what they can do and their shortcomings so that the interpretation of results comes from an informed position. Conferences like these offer an opportunity for colleagues to share knowledge and skills and exchange ideas especially on emerging topics in radiology. This presentation highlights how the models are created, how they are validated, the pitfalls to be aware of and ways to reduce common error like sampling bias, labelling bias and overfitting in creating models. Here the author summarizes how feature extraction is performed through convolution, ReLU, pooling and flattening before classification using the fully connected Artificial Neural Networks and how error correction for weights and biases is achieved through backpropagation and forward pass iterations by the artificial neural network. The goal is to raise awareness on the merits and potential benefits of adopting the technology whilst also acknowledging its potential limits.

### 3. AUTHOR: Dr. Mthokosizi Moyo

#### Artificial Intelligence, a Friend or Foe?

**Abstract:** This presentation is highlighting how Artificial Intelligence has invaded Radiology as a discipline in medicine. The author starts by describing the history of artificial intelligence from the early days of deductive reasoning during Aristotle era and being adopted mostly in computer science. The history of AI in Radiology took a major turn after introduction of Deep Learning by Geoffrey Hinton to recognize images at the ImageNet Large Scale Visual Recognition competition in 2012. This prompted Hinton to claim that AI will likely replace Radiologists in a decade from then. This claim unsettled many Radiologists and has likely caused mixed feelings in the adoption of AI in Radiology. Radiology is the cornerstone of diagnostics and patient monitoring; surgeons and physicians rely on imaging in their day-to-day patient management. The presentation style will be story telling with images and animations- no text. The author likens Radiology to other huge corporates classified as "too big to fail" which however went on to fail due to failure to adapt and or adopt technological advances in their fields. It is predicted, and there is already enough evidence, that AI will become better in executing most of Radiologists' routine and mundane tasks. The author poses a question of what could be the implication of such advances in AI? Is this an existential threat to the field of Radiology? Are Radiologists digging their own grave by adopting AI? However, there are many clear benefits of adopting AI including better quality images, alleviating the global shortage of radiologists, improved turnaround time of results, Computer Assisted Detection and Decision Support Systems. The author also highlights some critical challenges associated with AI like Data protection and handling, cyber security concerns posed especially by agentic AI, the black box effect, the performance of models in different environments and ethical dilemmas and medico-legal aspects associated with Software As Medical Device (SaMD). The question to be answered is: Is AI our friend or Foe? Are we getting replaced?



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## KAR ANNUAL SCIENTIFIC CONFERENCE

# ABSTRACTS

#### 4. AUTHOR: Alvin Kiprop, Whitney Nicanor Mabwi

Moi University, School of Medicine / Moi Teaching and Referral Hospital, Eldoret, Kenya

### ADVANCING RADIOTHERAPY IN KENYA: PROGRESS, CHALLENGES, AND RECOMMENDATIONS

#### Background:

Cancer is the third leading cause of death in Kenya, after infectious diseases and cardiovascular conditions, with approximately 47,887 new cases recorded annually. Radiotherapy is central to curative and palliative cancer management, yet access in Kenya remains severely constrained by geographic centralisation, insufficient infrastructure, an acute workforce deficit, and high out-of-pocket costs. Despite recent expansion, Kenya has fewer than one radiotherapy machine per million people. This is far below the International Atomic Energy Agency (IAEA) benchmark of four machines per million.

#### Methods:

This narrative review searched PubMed and Google Scholar for English-language articles published from January 2005 to December 2025 using the terms “radiotherapy,” “radiation therapy,” “Kenya,” and related Medical Subject Headings. Original research, systematic reviews, government policy documents, and grey literature relevant to Kenya’s radiotherapy landscape were included. Thematic synthesis was organised across clinical, technical, policy, and educational domains.

#### Findings:

Kenya’s radiotherapy landscape has evolved substantially since 2010, from a single cobalt-60 unit at Kenyatta National Hospital (KNH) to ten radiotherapy centres and five brachytherapy sites as of 2025. Critical advances include the commissioning of Kenya’s first CyberKnife® stereotactic radiosurgery system at Kenyatta University Teaching, Referral and Research Hospital (KUTRRH) in September 2023, and the operationalisation of a linear accelerator (LINAC) at Nakuru County Referral Hospital in 2024. However, the workforce remains critically thin (30 radiation oncologists, 14 medical physicists, 45 radiation therapists), services are geographically concentrated, and the 2024 transition from the National Health Insurance Fund (NHIF) to the Social Health Authority (SHA), while expanding coverage in principle, imposes reimbursement caps that fail to meet the true cost of multimodal radiotherapy treatment.

#### Conclusion:

Sustained investment in radiotherapy infrastructure, urgent SHA reform, formalised public-private contingency protocols, and significant expansion of the radiation oncology workforce is required if Kenya is to provide equitable access to radiotherapy as part of its Universal Health Coverage agenda. The 2023–2027 National Cancer Control Strategy provides an actionable policy framework; its full implementation must be urgently resourced.

Keywords: radiotherapy, Kenya, cancer, LMIC, linear accelerator, Social Health Authority, radiation oncology



## ABSTRACTS

### 5. AUTHOR: DIANA ASENSA- RADIOLOGY RESIDENT

**SUPERVISORS: DR LOICE SITIENEI, DR DANIEL CHEPSIROR, DR GILBERT KIYENG**

#### **Techniques, Complications and Tissue Adequacy of Image-Guided Thoracic Biopsies at Moi Teaching and Referral Hospital, Eldoret, Kenya**

##### **Background:**

Image-guided thoracic biopsies are essential for the diagnosis of pulmonary, pleural, and mediastinal lesions. Ultrasound and computed tomography guidance provide minimally invasive options for tissue sampling. However, local data on technique selection, complication rates, and tissue adequacy in resource-limited settings remain scarce.

##### **Objective:**

To evaluate the techniques, complication profile, and tissue adequacy of image-guided thoracic biopsies at Moi Teaching and Referral Hospital (MTRH).

##### **Methods:**

This hospital-based cross-sectional study included 78 adult patients who underwent image-guided thoracic biopsies between May 2024 and May 2025. Consecutive sampling was used. Data collected included socio-demographics, lesion characteristics, imaging modality, biopsy technique, complications, and tissue adequacy. Biopsies were performed using 18G core needles, with coaxial systems and semi-automatic biopsy guns where appropriate. Data were analyzed using R software, with descriptive statistics summarized as frequencies and proportions.

##### **Results:**

A total of 78 biopsies were performed, with 87.2% conducted under ultrasound guidance and 12.8% under CT guidance. The predominant technique was direct percutaneous core needle biopsy using 18G needles. Complications occurred in 12.9% of cases, predominantly mild, including small pneumothoraces and minor hemoptysis, with no procedure-related mortality. Tissue adequacy was achieved in 93.6% of cases, sufficient for histopathological diagnosis.

##### **Conclusion:**

Ultrasound-guided thoracic biopsy is a safe, effective, and accessible first-line modality at MTRH, demonstrating high tissue adequacy and low complication rates. These findings support its wider use in similar resource-limited settings.



## ABSTRACTS

### 6. AUTHOR: Alel Abrar MBBS, MMed (Radiology)

Consultant Radiologist – M. P Shah Hospital Nairobi.

#### **Guiding Salvage Therapy Decisions: The Emerging Role of the PI-RR Scoring System in Post-Radiotherapy Prostate MRI**

##### **Background / Purpose:**

Detection of local prostate cancer recurrence following radiotherapy remains a diagnostic challenge because post-treatment fibrosis, glandular atrophy, and diffuse signal alterations may mimic or obscure viable tumor tissue on MRI. Conventional interpretation after radiation therapy often lacks standardization, resulting in variability in reporting and subsequent management recommendations (1,2). The Prostate Imaging for Recurrence Reporting (PI-RR) system was recently introduced to provide a structured MRI-based framework for evaluating suspected local recurrence after definitive radiotherapy (1). This presentation aims to illustrate the clinical value of the PI-RR scoring system in guiding salvage therapy decisions using representative post-radiotherapy prostate MRI cases from a tertiary referral hospital in Kenya.

##### **Materials and Methods:**

A retrospective educational review of post-radiotherapy prostate MRI examinations performed at our institution was conducted. Cases with biochemical recurrence following external beam radiotherapy/Stereotactic body radiation therapy (SBRT) were selected. Multiparametric MRI studies were reviewed using T2-weighted imaging, diffusion-weighted imaging, apparent diffusion coefficient maps, and dynamic contrast-enhanced sequences. Lesions were categorized according to the PI-RR scoring system, with imaging findings correlated with PSA trends, targeted biopsy results where available (1,3). Illustrative cases demonstrating low-, intermediate-, and high-suspicion PI-RR categories were included.

##### **Results:**

The PI-RR framework improved structured interpretation of post-treatment MRI studies and enhanced radiologic confidence in differentiating post-radiation changes from probable tumor recurrence. High PI-RR scores demonstrated characteristic features including focal restricted diffusion, early contrast enhancement, and corresponding T2-weighted abnormalities within the treated gland or peri-prostatic tissues (1,4,5). Intermediate categories represented more equivocal findings requiring close clinical and imaging correlation. Integration of PI-RR scoring into multidisciplinary discussions facilitated patient stratification for salvage therapies such as focal ablation, salvage prostatectomy, re-irradiation, or systemic treatment escalation (5,6). The standardized reporting approach also improved communication between radiologists, urologists, radiation oncologists, and oncologic teams.

##### **Conclusion:**

The PI-RR scoring system represents a promising standardized tool for evaluating suspected local recurrence after prostate radiotherapy. By improving consistency in MRI interpretation and aiding risk stratification, PI-RR has potential to influence salvage treatment selection and optimize patient management pathways (1,5). Adoption of structured post-radiotherapy MRI reporting may be particularly valuable in resource-limited settings where accurate localization of recurrence can help avoid unnecessary invasive procedures and guide targeted therapy.

##### **References:**

1. Panebianco V, Villeirs G, Weinreb JC, Turkbey B, Margolis DJA, Richenberg J, et al. Prostate Imaging for Recurrence Reporting (PI-RR): International Consensus and Recommendations for Multiparametric MRI Evaluation of Local Recurrence After Radiation Therapy. *Eur Urol.* 2021;80(5):531-542.



## ABSTRACTS

2. Rosenkrantz AB, Taneja SS. Radiologist, be aware: ten pitfalls that confound the interpretation of multiparametric prostate MRI. *AJR Am J Roentgenol.* 2014;202(1):109-120.
3. Panebianco V, Barchetti F, Simone G, Ciardi A, Grompone MD, Del Monte M, et al. Negative biopsies with rising prostate-specific antigen levels: multiparametric magnetic resonance imaging and prostate cancer detection. *Eur Urol.* 2012;62(4):689-696.
4. Donati OF, Jung SI, Vargas HA, Gultekin DH, Zheng J, Moskowitz CS, et al. Multiparametric prostate MR imaging with T2-weighted, diffusion-weighted, and dynamic contrast-enhanced sequences: are all pulse sequences necessary to detect locally recurrent prostate cancer after radiation therapy? *Radiology.* 2013;268(2):440-450.
5. Woo S, Suh CH, Kim SY, Cho JY, Kim SH. Diagnostic performance of MRI for detection of local recurrence after radiotherapy for prostate cancer: a systematic review and meta-analysis. *AJR Am J Roentgenol.* 2018;211(6):W268-W278.
6. Haider MA, Chung P, Sweet J, Toi A, Jhaveri K, Menard C, et al. Dynamic contrast-enhanced magnetic resonance imaging for localization of recurrent prostate cancer after external beam radiotherapy. *Int J Radiat Oncol Biol Phys.* 2008;70(2):425-430.

### 7. AUTHOR: Dr. Steven Idet

#### mpMRI vs bpMRI for Detection of Clinically Significant Prostate Cancer

##### Background:

Multiparametric Magnetic Resonance Imaging (mpMRI) including dynamic contrast enhancement (DCE) is the current gold standard for detection of clinically significant prostate cancer (csPCa). However, the additional utility of DCE remains contentious resulting in the advocacy for biparametric MRI (bpMRI) which omits DCE.

##### Objective:

To compare the diagnostic accuracy of bpMRI versus mpMRI using PI-RADS v2.1 for the detection of csPCa, with histology as the reference standard.

##### Methods:

In this retrospective study of 170 patients. Prostate MRI studies were independently reinterpreted as bpMRI and mpMRI by two blinded radiologists. Diagnostic performance was assessed at PI-RADS  $\geq 3$  and  $\geq 4$  thresholds for csPCa. Sensitivity, specificity, positive and negative predictive values and diagnostic accuracies of bpMRI and mpMRI were calculated.

##### Results:

Prevalence of prostate cancer was 68.2%, with 54.7% having csPCa disease. mpMRI showed higher sensitivity at PI-RADS  $\geq 3$  (97.9% vs 91.4%) but lower specificity (23.4% vs 49.4%), with lower overall accuracy compared to bpMRI (64.1% vs 72.3%). At PI-RADS  $\geq 4$ , both modalities demonstrated improved specificity with similar overall accuracy (70.6% vs 72.9%). 77% of PI-RADS scores were similar in bpMRI and mpMRI. Interobserver agreement was fair to moderate across both modalities, with however slightly improved agreement and reader confidence observed for mpMRI.

##### Conclusion:

Substantial consistency between bpMRI and mpMRI reads and comparable overall diagnostic accuracy indicates that the omission of contrast does not significantly compromise overall diagnostic performance. bpMRI may be a viable alternative in selected clinical scenarios such as equivocal cases and resource limited settings.



## ABSTRACTS

### 8. AUTHOR: Dr Calvin Carlos, Dr Rose Ndumia, Prof Shahin Sayed, Dr Margaret Mwanja

#### **RADIOLOGIC-PATHOLOGIC CONCORDANCE OF STEREOTACTIC GUIDED BREAST BIOPSY AT A TERTIARY HOSPITAL IN SUB-SAHARAN AFRICA**

##### **Background:**

Stereotactic breast biopsy is useful for evaluating sonographic occult mammographic findings. AKUHN is the only hospital performing the procedure in the region. There was a need to assess our local radiologic-pathologic concordance relative to international outcomes.

##### **Methods:**

This was a retrospective cross-sectional study that included all stereotactic breast biopsies performed in AKUHN. mammographic data was obtained from the Picture Archiving and Communication System (PACS) which has a repository of images from August 2011. BIRADS 4 lesions were reclassified into BIRADS 4A and 4B/4C. Post biopsy and post-surgery histopathology results were obtained from the electronic health record systems.

##### **Results:**

107 stereotactic biopsies were included. The median age of study participants was 53 years with most patients being in the 40-55 years screening age group. Majority of the patients had come for screening (47.3%) and as diagnostic referrals from external facilities (41.1%). BIRADS 4A lesions were the majority at 59.8%, followed by 4B/4C lesions at 37.4%. Most lesions were benign at 59.8%, followed by DCIS at 30.8%. 65.4% of patients underwent SVAB with the rest SCNB. The radiological-histopathological discordance was 7.5%. Underestimation rate for DCIS was 27.3%, specifically underestimation rate for SCNB was 18.2% and SVAB was 36.4%. Calcifications had the highest sensitivity for malignancy at 92.5% and the lowest specificity at 14.9%.

##### **Conclusion:**

Stereotactic breast biopsies performed in our facility in Nairobi are in keeping with BI-RADS guidelines, as well as international studies. Mammography is an important screening tool for DCIS, which is a precursor for invasive breast carcinomas.

### 9. AUTHOR: Dr. Benjamin Wanyonyi

#### **Invasive Scedosporium Apiospermum Brain Infection in a Pediatric Patient: A Challenging and Fatal Presentation**

A 5-year-old male was referred for palliative care with an external working diagnosis of a WHO grade IV glioma. The patient presented at the external facility with a 5-week history of acute onset left sided hemiparesis, headache, left sided focal-aware seizures and undulating level of consciousness. A contrast-enhanced head CT done to evaluate the progress of the intracranial lesion revealed numerous confluent variable-sized right cerebral hemispheres hypodense lesions with peripheral ring enhancement extending across the body and splenium of the corpus callosum to the contralateral hemisphere. Further interrogation with contrast enhanced brain MRI demonstrated T2 hypointense rim, ring enhancement, and marked central restricted diffusion consistent with abscesses with extensive vasogenic edema oedema. Mass effect was present with a leftward midline shift, right subfalcine and uncal herniation. Compressed cerebral aqueduct resulted in obstructive hydrocephalus with periventricular interstitial oedema. An external ventricular drain was inserted that drained turbid CSF and under high pressure. CSF analysis showed elevated total proteins, glucose, and lactate levels. Frozen section biopsy of the cortex showed suppuration with no neoplastic cells. CSF ZN stain for Mycobacterium tuberculosis (MTB) and MTB polymerase chain reaction (PCR) was negative while culture grew Scedosporium apiospermum. The patient succumbed due to increased intracranial pressure. Morbidity and mortality from invasive CNS S apiospermum infection is high. This case highlights the devastating effects of this rare pathogen and its ability to infect immunocompetent hosts with no risk factors.



## ABSTRACTS

### 10. AUTHOR: Dr Gachie, Dr Lazaro, Dr Rodrigues, Dr Omamo

#### **Establishing a Coronary CT Angiography Service in a Resource-Limited Public Hospital: A One-Year Experience at Kenyatta National Hospital**

**Background:**

Coronary CT angiography (CTCA) is increasingly important in the diagnosis of cardiovascular disease, yet establishing such services in public hospitals within resource-limited settings remains challenging.

**Objective:**

To describe the experience, challenges, and multidisciplinary impact of initiating a Coronary CT service at Kenyatta National Hospital.

**Methods:**

A descriptive review of the first year of CTCA service implementation from May 2025 to May 2026 was conducted. Workflow development, training, operational challenges, and selected clinical cases were evaluated.

**Results:**

Despite challenges including equipment downtime, limited cardiac imaging expertise, software limitations, medication shortages, and high workload, the service was successfully established using a 128-slice CT scanner. Twenty-two studies were performed during the first year with increasing utilization and adoption of structured CAD-RADS reporting. Imaging findings directly influenced patient management, including urgent medical and surgical interventions. Success depended heavily on collaboration between radiologists, radiographers, cardiologists, nurses, physicians, surgeons, and hospital administration.

**Conclusion:**

Establishing a Coronary CT service in a public healthcare setting is feasible despite significant resource constraints. Strong teamwork, continuous consultation, structured workflows, and translating imaging findings into actionable clinical interventions are essential for successful and sustainable service delivery.

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## ABSTRACTS

**11. AUTHOR: Taleni Shafashike, Callen O. Onyambu and Paul E. Ekwom**

### **The Prevalence and Radiological Patterns of Interstitial Lung Disease in Connective Tissue Disease Patients at Kenyatta National Hospital**

**Background:**

Interstitial lung disease (ILD) is a significant cause of morbidity and mortality in patients with connective tissue diseases (CTD). ILD is largely understudied in Africa and little is known about its prevalence and characteristics on the continent.

**Objective:**

To determine the prevalence of ILD among CTD patients at Kenyatta National Hospital; and to describe the demographic, clinical and radiological features and their associations in patients with the disease.

**Methods:**

A cross-sectional descriptive census of CTD patients attending the rheumatology clinics at Kenyatta National Hospital in 2025. Patients with known ILD and those sent for HRCT chest scans for screening or diagnostic purposes were systematically sampled. Clinical and radiological data were obtained. Multidisciplinary discussion was done to determine the presence and type of ILD.

**Results:**

680 CTD patients were seen at the clinic. 69 ILD cases were identified, giving an overall CTD-ILD prevalence of 10.1%. ILD prevalence was  $\geq 40\%$  in systemic sclerosis (SSc) and mixed connective tissue disease (MCTD). Nonspecific interstitial pneumonia (NSIP), usual interstitial pneumonia (UIP) and organizing pneumonia (OP) patterns were the only types seen in the cohort, with prevalence of 59.2%, 34.7% and 6.1% respectively. Three patients had combined pulmonary fibrosis and emphysema. Pulmonary arterial hypertension was the most common comorbidity.

**Conclusion and recommendations:**

The overall prevalence of CTD-ILD was 10.1%. SSc and MCTD had the highest ILD prevalence, and routine screening may be beneficial in these patients. NSIP and UIP were the commonest patterns, with UIP most associated with rheumatoid arthritis.



## ABSTRACTS

### 12. AUTHOR: Gilbert Wakwelo, Gladys N. Mwangi, Timothy Musila Mutala

#### Implementing Teleradiology in Kenya: A Mixed-Methods Study of Challenges and Potential Solutions

##### Background:

Teleradiology has emerged as an important strategy for addressing the global shortage of radiologists and improving access to diagnostic imaging services, particularly in low- and middle-income countries. In Kenya, the radiologist-to-population ratio is estimated at approximately 1:270,000, resulting in limited access to specialist radiology services, especially in rural and underserved regions. Teleradiology offers a potential solution to bridge this gap; however, its effective implementation is influenced by multiple technological, operational, financial, and regulatory factors.

##### Objective:

To investigate the challenges affecting the implementation of teleradiology in Kenya and identify strategies that could enhance its effectiveness.

##### Methods:

A descriptive cross-sectional mixed-methods study was conducted among radiologists practicing in Kenya. Quantitative data were collected using a structured electronic questionnaire distributed to radiologists, while qualitative data were obtained through key informant interviews with representatives from the Kenya Association of Radiologists, the Kenya Medical Practitioners and Dentists Council, and teleradiology service providers. Quantitative data were analyzed using descriptive statistics, while qualitative data were analyzed through thematic analysis.

##### Results:

Sixty-five radiologists participated in the study, of whom 92.3% reported active use of teleradiology, indicating widespread adoption within the Kenyan radiology workforce. The most commonly interpreted imaging modalities via teleradiology were computed tomography (93.8%) and plain radiography (84.6%). The most significant barriers identified were limited access to prior imaging studies (80.3%), insufficient access to patient clinical information (80%), inadequate reimbursement for teleradiology services (76.6%), and lack of standardized imaging protocols across institutions (73.2%). Qualitative analysis complemented these findings by identifying additional systemic challenges including financial constraints, human resource capacity gaps, technological infrastructure limitations, regulatory and policy ambiguities, and concerns regarding data governance and information security.

##### Conclusion:

Teleradiology is already widely utilized in Kenya and plays a critical role in addressing the shortage of radiology specialists. Strengthening technological infrastructure, improving access to clinical information, developing clear regulatory frameworks, and establishing sustainable reimbursement models will be essential to optimize the implementation and long-term sustainability of teleradiology services.



## ABSTRACTS

### **13. AUTHOR: Loice Sitienei, Joseph Abuya, Naftali Busakhali, Winnie Sabul, Lilian Lusimbo Jennifer Morgan.**

#### **Insights from the ABCCCP program implementing clinical breast exam and point of care breast ultrasound**

##### **Background:**

In Kenya and Sub-Saharan Africa (SSA), late-stage presentations of breast cancer are common and lead to high mortality. However, detecting breast cancer early can result in downstaging, improved survival and is a high priority for breast cancer control. The Academic Model Providing Access To Health Care (AMPATH) Breast and Cervical Cancer Control Program (ABCCCP) conducted clinical breast exam (CBE) for breast cancer screening and early detection among women in two decentralized sites participating in the ABCCCP program. Once breast abnormality is identified on CBE, evaluation using imaging is an essential next step in the diagnostic pathway.

##### **Objective:**

To implement and evaluate a breast cancer screening/early detection intervention using CBE while incorporating breast point of care ultrasound (POCUS).

##### **Methods:**

POCUS training for facility sonographers at each site consisting of a 2-week intensive and 3-month longitudinal curriculum taught by skilled radiologists from the AMPATH consortium was done. After the 2-week intensive curriculum, breast POCUS was conducted on women presenting to these facilities for a 6-month period which coincided with the 3-month longitudinal training. Screening providers conducted CBE on all presenting women and sonographers performed breast POCUS on women with positive CBE. The Butterfly iQ, was utilized in this study. It is a pocket-sized, handheld, single-probe ultrasound that connects to an iPhone or tablet to view images. Images were saved in cloud storage and later reviewed by a radiologist offsite. Patients with indeterminate findings were reviewed by a radiologist at Moi Teaching & Referral Hospital. All biopsies were conducted at MTRH under ultrasound guidance.

##### **Results:**

1389 women were enrolled in the 6-month period. 100 (7.2%) participants had positive clinical breast examinations. Of these, 28 were biopsied, of whom 19 had malignant breast lesions and were linked to care



## ABSTRACTS

### 14. AUTHOR: Dr. Alex Githinji

#### IMPACT OF COVID-19 ON DEVELOPMENT OF PULMONARY FIBROSIS

##### Background:

COVID-19 has been associated with persistent post-infectious complications, including pulmonary fibrosis, which may result in chronic respiratory symptoms and impaired quality of life. Evidence from sub-Saharan Africa remains limited. This study evaluated the impact of COVID-19 on pulmonary fibrosis development and estimated its incidence among patients undergoing chest computed tomography (CT) at a tertiary teaching hospital in Kenya.

##### Methods:

A retrospective historical cohort study was conducted at Aga Khan University Hospital, Nairobi. Patients with documented COVID-19 test results between March 2020 and December 2023 who underwent baseline and follow-up high-resolution CT scans at least three months apart were included. Patients with pre-existing pulmonary fibrosis were excluded. Data was obtained from electronic medical records and the Picture Archiving and Communication System. Descriptive statistics summarized participant characteristics, chi-square tests assessed associations, and multivariable logistic regression identified independent predictors of pulmonary fibrosis.

##### Results:

A total of 276 patients were included, of whom 128 (46.4%) were COVID-19 positive. The overall prevalence of pulmonary fibrosis was 18.5%. Fibrosis occurred in 30.5% of COVID-19-positive patients compared with 8.1% of COVID-19-negative patients ( $p < .001$ ). The most common radiological pattern was parenchymal bands (74.5%), followed by traction bronchiectasis/honeycombing (17.6%) and irregular interfaces (7.8%). COVID-19 infection was an independent predictor of pulmonary fibrosis (OR = 4.73, 95% CI [2.11, 10.58],  $p < .001$ ).

##### Conclusion:

COVID-19 infection significantly increased the risk of pulmonary fibrosis, with a moderate incidence observed among survivors. These findings highlight the need for structured follow-up, early recognition, and healthcare resource planning to address long-term respiratory complications in resource-limited settings.



## **ABSTRACTS**

### **15. AUTHOR: Dr. Derick Onchiri**

#### **Spectrum of sonographic findings seen in dysfunctional dialysis AV fistulas and grafts in patients receiving dialysis at K.N.H**

##### **Study Background:**

Arterio-venous fistula and grafts(AVF/G) are an essential and critical form of hemodialysis access after renal transplant in the treatment of chronic kidney disease, a progressive medical condition affecting more than ten percent of the general population worldwide exerting a large burden in low and middle-income countries least equipped to deal with its consequences.

Up to sixty percent of fistulae may fail to mature appropriately to support dialysis with thrombosis, stenosis and infection being the three most prevalent complications globally and is thus imperative that ArterioVenous fistula and grafts remain patent with longevity and therefore the need for surveillance.

Duplex Sonography can diagnose access stenosis, its etiology such as intimal hyperplasia and/or post-puncture scarring, the measurement of residual diameter, depth and the calculation of access flow volumes (KDOQI guidelines) all aforementioned being precise in comparison to angiography.

##### **Broad Objective:**

To describe the spectrum of sonographic findings seen in dysfunctional dialysis AV fistulas and grafts in patients receiving dialysis at K.N.H.

##### **Study Design and Site(s):**

Cross-sectional study done at K.N.H. Renal Clinic, UoN an K.N.H. Radiology departments.

##### **Participants and Method(s):**

Patients on dialysis with AV fistula or candidates for creation consenting to be part of the study. A sample size of 123 AVF/G has been determined using Modified Cochrane Formula and a consecutive sampling method employed.

##### **Results:**

Thrombosis,aneurysms, immaturity, edema and pseudoaneurysms are the cause of dysfunctional AVFs in that order. Peri-graft hematomas are the commonest imaging finding in AVG.

##### **Conclusion and recommendation:**

Creation of more fistula to achieve the global set targets. Creation of AVF/G in anticipated ESRD is key to avert primary failure. Hand exercises, surgeon's experience/technique such as ligation and delayed proper cannulation help avert AVF/G failure. There is utility of mechanical thrombectomy and angioplasty in view of the findings for immature dysfunctional fistulas.



## ABSTRACTS

### 16. **AUTHOR: Dr. Bomett Brian**

*Resident – Department of Radiology & Imaging, Moi University School of Medicine, Eldoret, Kenya*

### **A Multidisciplinary Radiological Approach to Community-Acquired Staphylococcus aureus Pneumonia: A Pediatric Case Report from a Tertiary Referral Centre in Western Kenya**

#### **Background:**

Community-acquired Staphylococcus aureus pneumonia (CA-SAP) accounts for 1–10% of community-acquired pneumonia globally, with high mortality predominantly in young children. Radiological hallmarks – bilateral cavitating consolidation, pneumatocele formation, and secondary pneumothorax – distinguish it from other pathogens yet remain under-recognized in resource-limited settings. The burden in Kenya is poorly characterized.

#### **Case Summary:**

A previously well 6-year-old male presented with severe dyspnea with SpO<sub>2</sub> of 70–80% following blunt chest trauma. Initial chest radiograph showed bilateral lower lobe atelectasis, right pneumothorax, and cavitating nodular opacities; bilateral tube thoracostomies were inserted. Failure of resolution prompted CT chest, revealing diffuse cavitating nodules, bilateral bronchopleural fistulae, consolidations, pleural effusions, and hilar adenopathy – a constellation characteristic of CA-SAP. Pleural aspirate culture confirmed methicillin-sensitive *S. aureus* (MSSA); GeneXpert excluded tuberculosis. Treatment comprised IV Vancomycin, Meropenem, and Linezolid, followed by bilateral pleurodesis. Concurrent septic arthritis of the right shoulder on ultrasound confirmed systemic hematogenous dissemination.

#### **Conclusion:**

CT chest is superior to plain radiography in characterizing CA-SAP and its complications. Bilateral cavitation, pneumatocele formation, and crazy-paving pattern should prompt strong suspicion for Staphylococcal pneumonia and early targeted antimicrobial therapy. This case underscores the value of multidisciplinary radiology and the need for improved *S. aureus* epidemiological surveillance in Kenya.\

**Conflict of Interest:** None declared | Ethics: Patient details anonymized



## ABSTRACTS

### 17. AUTHOR: Dr. Saada Mohamed

#### **The Drivers of Breast Cancer screening among Women receiving Radiological Services at Kenyatta National Hospital with emphasis on the role of healthcare workers**

##### **Background:**

Breast cancer is a leading cause of mortality among women globally, and early detection through screening significantly improves outcomes. However, screening uptake remains low in many low- and middle-income countries, including Kenya, due to socioeconomic, cultural, and health system barriers. Healthcare workers play a pivotal role in influencing screening behavior.

##### **Objective:**

To evaluate the key drivers of breast cancer screening uptake among women receiving radiological services at Kenyatta National Hospital, with emphasis on the role of healthcare workers.

##### **Methods:**

A cross-sectional descriptive study was conducted among consenting women aged  $\geq 18$  years in the radiology department. Systematic random sampling was used. Data were collected using structured questionnaires assessing demographics, awareness, and health-seeking behavior, and analyzed using SPSS version 25. Ethical approval was obtained.

##### **Findings:**

A total of 358 participants were analyzed (response rate 95.5%). Most were aged 30–49 years (54.5%) and married (65.3%), with secondary (41.9%) or college education (39.1%). Healthcare workers (39.1%) and media (30.7%) were the main information sources. Combined screening methods were most common (25.1%). While 46.1% were aware of risk factors, 18.2% had no knowledge. Significant associations were found between insurance and income, knowledge level and healthcare worker recommendation, and healthcare worker education and screening uptake.

##### **Conclusion:**

Knowledge gaps persist, but healthcare workers strongly influence screening uptake. Strengthening healthcare worker-led education and addressing socioeconomic barriers are essential to improve screening participation in Kenya.



## ABSTRACTS

### 18. AUTHOR: Dr. Janet Changwony

#### **Diagnostic Performance Of Ultrasound Elastography In Differentiating Benign And Malignant Lymphadenopathy At Moi Teaching And Referral Hospital, Eldoret, Kenya.**

##### **Background:**

Lymphadenopathy is a common clinical finding associated with both benign and malignant conditions. Accurate characterization is essential for diagnosis and management. Although histopathology remains the gold standard, reliance on biopsy without precise targeting may result in inconclusive or false-negative outcomes. Ultrasound elastography, which assesses tissue stiffness, has emerged as a promising non-invasive tool for differentiating lymph node pathology.

##### **Objective:**

To evaluate the diagnostic performance of ultrasound elastography in differentiating benign from malignant lymphadenopathy by comparing elastography findings with histopathology.

##### **Methods:**

This hospital-based cross-sectional study included 66 patients with lymphadenopathy referred for ultrasound-guided core needle biopsy at Moi Teaching and Referral Hospital between May 2024 and April 2025. Data collected included demographics, elastography scores (five-point color-coded scale), and histopathological results. Statistical analysis involved descriptive methods, chi-square testing, and receiver operating characteristic (ROC) curve analysis, with significance set at  $p < 0.05$ .

##### **Findings:**

Most lymph nodes demonstrated high stiffness, with 59.1% scoring 4 and 28.8% scoring 5. Histopathology revealed 78.8% malignant and 21.2% benign cases, with lymphoma being the most frequent malignancy. Ultrasound elastography showed high sensitivity (96.1%) and positive predictive value (86.2%), but lower specificity (42.9%) and a negative predictive value of 75%. The area under the ROC curve was 0.692 (95% CI: 0.59–0.69;  $p < 0.001$ ), indicating fair diagnostic accuracy.

##### **Conclusion:**

Higher elastography scores strongly correlate with malignancy. Ultrasound elastography demonstrates high sensitivity and is a valuable non-invasive screening tool for guiding biopsy and improving diagnostic accuracy in lymphadenopathy.



## ABSTRACTS

### 19. AUTHOR: Dr. Sharon Mwasi

#### **The Drivers of Breast Cancer screening among Women receiving Radiological Services at Kenyatta National Hospital with emphasis on the role of healthcare workers**

##### **Background:**

Musculoskeletal sonography exists as a sub-specialty of sonography. It is underutilized despite being affordable and widely available.

##### **Objective:**

##### **Broad objectives**

To determine the prevalence and pattern of elbow synovitis on sonography using the EULAR OMERACT scoring system and its distribution as per the level of disease activity using the CDAI in patients with rheumatoid arthritis at Kenyatta National Hospital.

##### **Specific objectives**

1. To determine the prevalence of elbow synovitis.
2. To determine the pattern of elbow synovitis
3. To determine the level of disease activity
4. To determine the distribution of synovitis based on the level of disease activity using the EULAR-OMERACT and CDAI respectively.

##### **Materials and Methods**

The study was descriptive and prospective study that ran over a period of 5 months between January to May 2025. Consent for recruitment was first sought then bilateral elbow ultrasonography was done

##### **Findings:**

73 patients with rheumatoid arthritis (90.4% female; mean age  $51.1 \pm 13.0$  years), had elbow synovitis with a prevalence of 79.5% (95% CI: 68.8%–87.1%).

The EULAR-OMERACT grade distribution: Highest score across recesses were: none 20.5%, minimal 43.8%, moderate 15.1%, severe 20.5%.

CDAI showed high activity in 42.5%, moderate 26.0%, low 28.8%, remission 2.7%. A significant association exists between the grade of synovitis and clinical disease activity with a p value of=0.039. Severity of synovitis being linked to a higher disease activity.

##### **Conclusion:**

A huge proportion of the studied population have moderate synovitis and high disease activity. The severity of synovitis being linked to higher disease activity.



## ABSTRACTS

### 20. AUTHOR: Alma Gumato Laibon and Onyambu Callen

#### Multidisciplinary Team Meetings: Radiologists And Radiology Residents' Perspectives

##### Background:

In Kenya, Multidisciplinary Team Meetings (MDMs) have become the standard for providing optimum patient care and more so in cancer patients. There are weekly MDMs on cancer cases in most private and public hospitals, but participation of radiologists and radiology residents in these MDMs and their perspectives about the MDMs have not been studied in-depth to date.

##### Broad Objective:

To evaluate the knowledge and perspectives of radiologists and radiology residents in Kenya regarding MDMs.

##### Study Design and Site:

A descriptive cross-sectional study was carried out in Kenya, East Africa.

##### Methodology:

The study population was radiologists and radiology residents registered with Kenya Medical Practitioners and Dentists Council (KMPDC). Convenience sampling method was used to recruit 16 radiologists and 47 radiology residents and an online questionnaire hosted on Google Forms used to collect data on their demographic characteristics and knowledge and perspectives regarding MDMs. Data was entered, cleaned and analyzed using IBM Statistical Package for Social Sciences (SPSS) statistics software version 25. Frequency distributions were used to evaluate knowledge and attitudes on MDMs.

##### Results:

The mean age of participants was  $35.6 \pm 7.2$  years. Most of them had practiced radiology for less than 5 years (83.0%) and were working in public hospitals (75.4%) with about 10-25 radiologists and radiology residents (27.4%). The majority (93.7%) were participating in MDMs. Neuroradiology MDMs were the most attended (71.2%). Most of the MDMs were held online (80.0%) to help with treatment decision making of difficult cases (86.9%). Decision-making in MDMs was mainly by consensus (78.7%). Most participants agreed that MDMs increased team competence by providing a learning opportunity of junior colleagues (98.4%). They also agreed that MDMs facilitated and strengthened teamwork between disciplines (96.8%), promoted adherence to clinical guidelines (93.9%), facilitated patient referrals (87.3%) and shortened the time between diagnosis and treatment of patients (70.9%). Even though 78.9% and 60.7% found the frequency and time of MDMs to be appropriate, 80.3% felt they were not involved in patient selection for the MDMs, while 54.1% and 72.1% felt that guidelines and protocols for conducting MDMs were lacking and that communication and feedback to participants was insufficient. There was consensus that participation in MDMs should be mandatory for radiologists and radiology residents (79.1%), internal audits be conducted to confirm whether decisions made in MDMs match current best practices (54.1%), and feedback mechanisms in MDMs should be improved.

##### Conclusions:

The findings show that almost all radiologists and radiology residents attend MDMs, which are mostly conducted online. The timing, frequency, and decision-making in MDMs was adequate, but many radiologists and radiology residents felt like there was a need to improve communication and feedback mechanisms for MDMs and conduct internal audits to identify loopholes in decision-making.

**Keywords:** Multidisciplinary Meetings, Participation in MDMs, Opinions towards MDMs



KENYA ASSOCIATION OF  
**RADIOLOGISTS**

**FUJIFILM**  
Value from Innovation

*Invites you to our*

# *Gala* **DINNER**



*Theme:*

## *Aloha*

*Hawaii Theme*



**SATURDAY,  
30<sup>TH</sup> MAY**



**MC:  
ERIC MUIRIITHI**



**TIME:  
7:00PM**

**ENTERTAINMENT BY:**



**CHRIS BITTOK  
& SOLANTRA BAND**



**VENUE:  
PRIDE INN  
CONVENTION CENTRE**



**DJ**

*An Evening of Elegance,  
Connection & Island Vibes*

DRESS CODE: A TOUCH OF HAWAIIAN  GOOD FOOD • GREAT MUSIC • GOOD COMPANY





Event Organizer: Medics Management Services  
Cell: 0726 830 732 | Email: [Info@mmskenya.co.ke](mailto:Info@mmskenya.co.ke)  
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