



Catherine Wangui Muchuki

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PERSONAL INFORMATION

- Gender: Female
- Nationality: Kenyan
- Religion: Christian

PROFESSIONAL SUMMARY

ARMRIT Certified radiographer with 15+ years of experience with proficiency in using imaging equipment in various modalities including MRI, CT and digital Imaging. My background experience includes anticipation of a 100% success rate of perfect imaging, leveraging my technical skills and approach to challenging roles to achieve consistent quality outcomes. Have a strong focus on patient care, safety and comfort with commitment to continuous professional development and excellence.

WORK HISTORY

ASSISTANT CHIEF RADIOGRAPHER 11/2017 to CURRENT

Kenyatta National Hospital

- Leadership and Administrative duties
- In charge of the Magnetic Resonance Imaging unit in the department
- Leading a team of 8 radiographers in MR section
- Managed to maintain 12-15 procedures per shift while maintaining high-quality care
- Actively participate in departmental meetings and provide input on process improvement
- Help to establish MRI protocols
- Prepare and maintain records of imaging procedures
- Trained radiographers in MR protocols and safety procedures
- Explaining and monitoring patients during MR imaging procedures to ensure their cooperation and comfort
- Participating in continuing education to stay current with advancements in MR imaging technology.

SENIOR RADIOGRAPHER 09/2016 to 11/2017

Kenyatta National Hospital

- Workflow rota advisory committee in the department that ensured staff availability by 80%
- Prepared and maintained records of imaging procedures
- Successfully streamlined the radiology department's workflow by implementing a queue system resulting in a 30% reduction in waiting

times

- Implemented quality control measures that resulted in reduced errors by 80%
- Wrote grant proposal that secured KSh. 250,000 in funding for carrying out a study to reduce of patient waiting times in the radiology department by 30%
- Collaborated with physicist to develop and implement safety protocols and exposure factors for portable ward imaging resulting in 50 %reduction in radiation exposure incidents and improved overall safety for both patients and staff members
- Assisted in training of radiographer students to improve the overall efficiency of the radiology department
- Successfully performed over 5000 radiographic examinations within a year, maintaining a 98% accuracy rate and ensuring timely diagnosis for patients.

RADIOGRAPHER I

11/2013 to 09/2016

Kenyatta National Hospital

- Maintained radiation safety practices and use of protective equipment
- Evaluated images for technical quality and accuracy
- Adjusted and maintained imaging equipment to ensure optimal performance
- Prepared and maintained records of imaging procedures
- Successfully streamlined the radiology department's workflow by implementing a queue system resulting in a 30% reduction in waiting times
- Implemented quality control measures that resulted in reduced errors by 80%
- Collaborated with physicist to develop and implement safety protocols and exposure factors for portable ward imaging resulting in 50% reduction in radiation exposure incidents and improved overall safety for both patients and staff members
- Assisted in training of radiographer students to improve the overall efficiency of the radiology department
- Successfully performed over 5000 radiographic examinations within a year, maintaining a 98% accuracy rate and ensuring timely diagnosis for patients.

RADIOGRAPHER II

06/2012 to 05/2013

Kenyatta National Hospital

- Providing radiographic services for the treatment of patients.
- Processing, verifying and maintaining x-ray films for patients.
- Ordering and maintaining records of radiographic and photographic equipment and other supplies.
- Taking charge of radiation medicine equipment and accessories.
- Maintaining and evaluating radiation safety measures in the X-ray unit.
- Ensuring the provision of quality services to the patient.
- Prepared and maintained records of imaging procedures.

- Successfully streamlined the radiology department's workflow by implementing a queue system resulting in a 30% reduction in waiting times.

RADIOGRAPHER III

12/2007 to 05/2012

Kenyatta National Hospital

- Performing general radiographic examinations which involved
- Image recording, maintaining and controlling all steps involved in the production and storage of a permanent visible image
- Maintained hygiene in the film processing room and imaging room
- Cleaning of film processing chemicals
- Ensured availability of relevant supplies in the imaging room
- Cleaning of imaging equipment
- Patient care to the patient-ethical guidelines followed
- Patient positioning – positioning patient, film and directing the x- ray beam in such a way that the final image is optimum
- Exposure factors - selecting a suitable combination of exposure factors
- Radiation protection and optimization of dose
- Responsibility relating to somatic/genetic hazards arising from ionizing radiation.

RADIOGRAPHER III

08/2006 to 11/2011

Moi Teaching Referral Hospital | KENYA

- Performing general radiographic examinations which involved Image recording, maintaining and controlling all steps involved in the production and storage of a permanent visible image.
- Maintained hygiene in the film processing room and imaging room.
- Cleaning of film processing chemicals.
- Ensured availability of relevant supplies in the imaging room.
- Cleaning of imaging equipment
- Patient care to the patient-ethical guidelines followed.
- Patient positioning – positioning patient, film and directing the x-ray beam in such a way that the final image is optimum.
- Exposure factors - selecting a suitable combination of exposure factors.
- Radiation protection and optimization of dose. Responsibility relating to somatic/genetic hazards arising from ionizing radiation.
- Responsible to senior staff for the provision of radiographic services in the hospital.
- Effective supervision of junior staff working under me.

EDUCATION

Master's degree | health systems management

09/2019

University of Nairobi, Nairobi-Kenya

Conferred Degree | Diagnostic Imaging

04/2013

University of Johannesburg, South Africa

Higher Diploma | Radiation Protection

12/2011

University of Nairobi - College of Architecture & Engineering Institute of Nuclear Science And Technology, Nairobi -Kenya

○ **Higher Diploma** | Ultrasound 03/2010
Kenya Medical Training College, Nairobi - Kenya

○ **Undergraduate Diploma** | Medical Imaging Sciences 09/2006
Kenya Medical Training College, Nairobi - Kenya

○ **Kenya Certificate** | Secondary Education 12/1998
Michinda Secondary School, Nakuru - Kenya

○ **Kenya Certificate** | Primary Education 12/1993
St Peter's Girls School, Nakuru - Kenya

CERTIFICATION

- Certificate of credential evaluation by World Education Services (WES), converting educational credentials from any country in the world into the U.S. equivalents.
- Member of The American Registry of Magnetic Resonance Imaging Technologists (ARMRIT), a credentialing organization that certifies MRI technologists.
- Member Society of Radiography in Kenya (SORK).
- Registered and licensed by the Radiation Protection Board (RPB) Certification license no 704.

SKILLS

- Quality assurance
- Monitoring
- Research & innovation
- Computer literacy
- Problem solving
- Flexible
- Organized
- Analytical
- Professionalism
- Radiation safety
- Quality control
- Career guidance & mentoring
- Diagnostic imaging, CT, MRI and X-ray
- Time management
- Effective Communication
- Ethical
- Teamwork

COURSES AND CONFERENCES ATTENDED

- Successfully completed Scan With Me (SWiM) a hybrid training program designed to advance the skill sets of MR imaging technologists practicing in imaging centers in Low-and-Middle-Income Countries (LMICs) on advanced Brain imaging techniques from **August 22 to october 7 2024.**
- Attended the third SMART Africa Network Workshop held at Muhimbili University of Health and Allied Sciences, Dar es Salaam, Tanzania on **17th to 18th September, 2024.**

- Successfully completed Basic life support training by American heart association from **May 1-30, 2024**.
- Attended the 2024 ISMRM and ISMRT annual meeting and exhibition on **04-09 May 2024** in Singapore.
- Attended the Annual meeting of Radiological Society of North America (RSNA) held from **November 28 to December 2, 2021** at McCormick place in Chicago, Illinois.
- Attended Radiographers Scientific Conference (Rasco), Theme 'Universal Health Coverage' held at Flamingo Beach Resort & Spa Shanzu Mombasa from **21st -23rd October 2021**.
- Participated the ESR World pop up event virtual conference held on **March 3-7 2020** at Austria Centre, Vienna.
- Attended the Annual meeting of Radiological Society of North America (RSNA) held from **December 1 -6, 2019** at McCormick place in Chicago, Illinois.
- Attended the European Society of Radiology Conference held from **February 27-March 3 2019**, at Austria Centre, Vienna.
- Full participation in the 10th Biennial Pan African Congress of Radiology and Imaging (PACORI).
- Theme 'Achieving the Health-Related sustainable development goals in Africa-Role of Radiology and Imaging held from **February 14-17 2019**, at Accra Ghana.
- Attended the European Society of Radiology Conference held from **February 28-March 4, 2018**, at Austria Centre, Vienna.
- Attended the European Society of Radiology Conference held from **March 1-5, 2017**, at Austria Centre, Vienna.
- Attended the European Society of Radiology Conference held from **March 2-6, 2016**, at Austria Centre, Vienna.
- Attended the European Society of Radiology Conference held from **March 4-8, 2015**, at Austria Centre, Vienna.
- Attended the leadership and governance training organized by the Society of Radiography in Kenya in collaboration with Business advocacy fund in Kisumu, Kenya from **21st October to 23rd October 2014**.
- Participated at the 6th Radiographers scientific conference held in Kisumu, Kenya from **17th October to 20th October 2014**.
- Participated at the 18th international society of radiographers and radiological technologists (ISRRT) world congress, Helsinki, Finland held from **12th June to 15th June 2014**.
- Participated at the international meeting on Radiation Protection in Medicine, Varna, Bulgaria, **30th May to 2nd June 2014**.
- Participated in an international training program in radiation safety management for Radiographers and radiological Technologists, held in Brussels, Belgium from **22nd March to 04th April 2014**.
- Participated in a workshop on Train the Trainers workshop on the International Nuclear and Radiological Event Scale (INES) held in Vienna, Austria from **7th to 11th October 2013**.
- Attended the International Atomic Energy Commission Conference on

integrated medical imaging in cardiovascular disease (IMIC 2013) held in Vienna, Austria from **30th Sept to 4th Oct 2013**.

- Participated at the Technical meeting of patient radiation exposure tracking held in Vienna, Austria on **23rd to 25th September 2013**
- Recognition of attendance and full participation in the 7th biennial Pan African Congress of Radiology and Imaging (PACORI). Theme 'Evidence Based Imaging for Quality Healthcare in Non-Communicable Diseases' in partnership with Philips Kigali, Rwanda on **24th to 26th April 2013**.
- Participated at the Technical Meeting on Justification of Medical Exposure and the Use of Appropriateness Criteria in Vienna from **12th to 14th March 2013**.
- Participated at Kenyatta National Hospital (KNH) research training program proposal development held at Panafric Hotel from **18th Feb to 21st Feb 2013**.
- Attended the International Conference on Radiation Protection in Medicine 'Setting the Scene for the Next Decade' Bonn, Germany from **3rd to 7th December 2012**.
- Participated in continuous professional development activity breast health seminar organized by the society of Radiographers of South Africa Branch Johannesburg at Wits Medical School, Park town on **6th October 2012**.
- Participated and completed IAEA regional 'Train the trainer's workshop for radiation protection officers' held at the institute of Nuclear Science and Technology University of Nairobi on **2nd to 6th July 2012**.

Topics discussed:

- ✓ Review of radiation protection principles
- ✓ Role and duties of the radiation protection officers
 - ✓ IAEA training packages-overview and discussion
- ✓ Factors for learning
- ✓ Communicating with a group
- ✓ Interactive presentation session
- ✓ Rules for effective training
- ✓ Developing tools and teaching aids
- ✓ Concept of group exercise
- ✓ Application of IAEA training packages
- ✓ Designing and delivering a training sequence
 - Participated in the 17th ISRRT (international Society of Radiographers and Radiological Technologists) world congress held at Toronto Canada **5th to 10th June 2012**
 - Participated in Africa Health -2nd African Imaging and Radiology Conference 2012 held at Johannesburg Expo centre, Nasrec South Africa on **9th to 11th May 2012**
 - Participated in continuous professional development activity organized by the society of Radiographers of South Africa (SORSA) Branch Johannesburg at Wits medical school, Park town on **21 April 2012**
 - Attended the course "Equipment use and refresher course for radiographers". The course was conducted by med proof-S under the

ORET project” strengthening of 23 hospitals in Kenya” in partnership with fontys university of applied sciences at the district Hospital Machakos, Kenya on **23rd to 27th may 2011**

- Participated on the scientific conference at the Tanzania Atomic Energy Commission Arusha. Scheduled from **March 6th to 14th 2011**
- The tentative program of visit was spread over five (5) day period which covered the Overview of dosimetry activities (personnel monitoring services &SSDL) in;

a) Stability test measurements

b) Air Kerma measurements (137 Cs & x-ray beams)

c) HVL measurements

d) Calibration of industrial dosimeters.

- Participated at the 16th ISRRT (international society of Radiographers and Radiological Technologists) world congress held at Gold Coast Australia **9th to 12th Sept 2010**
- Successfully completed a post basic course in Health Service Management and Administration at Kenya medical training college from **14th to 25th June 2010.**

Course modules:

✓ principles and practices of management

✓ Organizations and their effects

✓ Human resource management

✓ Community development

✓ Project development and management

✓ Health economics

✓ Leadership

- Participated and successfully completed the CME PACS (IMPAX 6 and RIS system) presentation at KNH by Agfa Healthcare on **28- April-2010**
- SAQA (South Africa Qualification Authority) certificate of evaluation for advisory services on **20-April-2010**
- National Conference on “One Kenya, One Dream: The Kenya We Want” KICC **2009**
- Attended the 5th Biennial Scientific Conference Pan African Congress of Radiology and Imaging theme “Challenges of Radiological practice in Africa’ held in Nigeria Abuja on **10th to 14th august 2009**
- Participated SORK accredited CPD activity on Management and Professional Ethics workshop held at Green Hills Hotel, Nyeri on **31-May-2009**
- Attended the inaugural KESUMB (Kenya society for ultrasound in Medicine and Biology) scientific conference held at Aga khan University Hospital and University of Nairobi on **28-29 March 2009**
- Participated SORK accredited CPD presentation by Phillips Medical Systems East Africa Ltd on Isite Pacs, and Computed Radiography presentation by colour international ltd on **21-March-2009**
- Participated SORK accredited CPD Sensitization Workshop on overview on Ultrasound practice held at Utalii Hotel Nairobi on **7-February-2009.**

- Attended a workshop on the impact of the Public Procurement law in the procurement of professional services held at KICC organized by the Association of Professional societies in East Africa (APSEA) in collaboration with the public procurement oversight authority (PPOA) **13th November 2008**
- Attended the 3rd Radiographers Scientific Conference (Rasco), Theme "Sustainable Quality Radiography in Africa" held at leisure lodge Beach and Golf Resort **20th -29th October 2008**
- Participated in the 15th International Society of Radiographers and Radiological Technologist's (ISRRT) World Congress held at Durban international convention centre, South Africa from **24th to 27th April 2008**.
- Successfully participated in an Induction Course for newly employed senior and middle level managers organized by Kenyatta National Hospital Ramtulla wing KNH Grounds from **14th to 17th April 2008**
- Participant in Breast Care Training workshop on Mammography, Breast Ultrasound, BI-RADS principals and Accreditation on Mammography. Breast Cancer Awareness and Screening programmes. The course was conducted at Holiday Inn Nairobi Kenya, and Organized by the Kenya breast health programme, the Ormylia foundation, American college of radiology and Susan G.Komen for the cure foundation from **5th Nov to 9th Nov 2007**.
- Certificate In appreciation for the contribution to Operation Ear Drop project held at Moi Teaching and Referral Hospital Kenya-Eldoret for one week, **November-2006**
- Participated Nacada workshop on prevention of alcohol and smoking **August 2005**.
- Successfully completed a course on First Aid with St John, ambulance **10 August 2004**
- Successfully completed a Driving Course **Jan to June 2000**.
- Successfully completed a certificate in computer operations at Compumart Systems College at Nakuru **12th Aug 1999**

PAPERS PRESENTED

- Presented a paper on MRI artefacts at the 22nd ISRRT world congress, Bangkok, Thailand held from **15th to 17th December 2022**.
- Presented a paper on MRI artefacts at the 19th ISRRT world congress, Seoul, South Korea held from **19th to 22nd October 2016**.
- Presented a paper on Abdominal Examination in KNH using 16 multi slice CT scan: Review of ALARA practice in managing patient dose at the 18th ISRRT world congress, Helsinki, Finland held **12th June to 15th June 2014**.
- Presented a paper on Abdominal Examination in KNH using 16 multi slice CT scan: Review of ALARA practice in managing patient dose at the international meeting on Radiation Protection in medicine, Varna, Bulgaria, **30th May to 2th June 2014**.
- Presented a paper on 'Strengthening the process of justification in the Technical Meeting on patient radiation exposure tracking held in Vienna, Austria **23rd to 25th September 2013**.

CAREER OBJECTIVES

- Submitted a contributed paper on Dose Reduction in trauma patient's performed using Portable Equipments at Kenyatta National Hospital, Kenya during the international Conference on Radiation Protection in Medicine, Bonn, Germany **3th to 7th December 2012**.
- Invited speaker and presented a paper on 'Dose reduction in trauma patient's performed using portable equipments' at the 17th ISRRT World Congress Toronto, Canada held **June 7th to 10th 2012**.
- My ambition in Radiology is to be an asset in practice of high standard of radiography that is recognized both locally and international especially in the area of Musculoskeletal Imaging in MRI, Elastography, Spectroscopy, Diffusion Imaging, Cardiac Imaging and Perfusion Imaging.
- To be involved in quality and excellent teaching and training of undergraduate students at KMTC.
- To be involved in Research at our institution and present quality research material and publications both locally and internationally.
- To collaborate with international institutions through exchange program initiatives to foster deep bilateral exchange of expertise in MRI advanced Imaging techniques and research.
- To be involved in policy making that can improve radiological services and the health of our populace at the departmental, institutional and National levels.
- To continuously advance my career by pursuing more professional and managerial training so as to acquire more knowledge and skills.
- To be actively involved in the development, research and application of newer and better modalities of imaging in the above fields.
- To be able to translate knowledge gained and bring Kenya and the whole of East Africa the same development levels.
- This will be achieved by training and interacting with experts in established centers, as well as being involved in research to pursue such developments

FIELD TRAINING

- 2003 – 2006:** Kenyatta National Hospital for my practical training including:-
- ✓ Mbagathi District Hospital
 - ✓ MITC (Medical Image Therapeutic Centre)
 - ✓ Agakhan Hospital
 - ✓ Nairobi Hospital
 - ✓ Kiambu District Hospital
 - ✓ Kikuyu Mission Hospital
 - ✓ Mp Shah Hospital
- June 06-August 06:** Moi Teaching and Referral Hospital for practical attachment.

MEMBERSHIP AND LEADERSHIP

- Member of the Smart Africa Network (SAN), supported by the Chan Zuckerberg Initiative (CZI), a non-profit academic imaging project

aimed at advancing Magnetic Resonance Imaging (MRI) in medicine and biology across Africa

- Member of International Society for magnetic Resonance in imaging (ISMRM)
- Member of Radiological Society of North America(RSNA)
- Member of European society of radiology (ESR)
- Associate member of the International Society of Radiographers and Radiological Technologists (ISRRT)
- Member of Pan African Congress of Radiology and Imaging (PACORI)
- Member of the Association of Professional societies in East Africa (APSEA)
- Member of the Society of Radiography (SORK), Finance and Fundraising committee
- Member of the Society of Radiography (SORK), Entrepreneurship and Procurement Committee
- Member and Past Council Member of the Society of Radiography in Kenya (SORK)

AWARDS

- Awarded Cum laude for excellence performance for a bachelor's degree in Diagnostic on **17th April 2013**
- Recommendation letter for the excellence performance in MRI department at charlotte Maxeke Academic Hospital Johannesburg, South Africa **January to November 2012**
- Awarded certificate of merit during inter-house athletics championship in Discuss event with a distance of 18.02m **13th May 1998**
- Awarded certificate of merit during inter-house athletics championship in Discuss event with a distance of 17.44m **1997 to 1998**
- Awarded certificate of merit during school ball games in basketball game with performance of best forward **9th November 1998**

HOBBIES AND INTERESTS

- Adventure Traveling
- Socializing
- Swimming
- Reading
- Golfing

REFERENCES

- Ms Barbara Van dyk,
Vice-Dean/Lecturer,
Faculty of Health Sciences
University of Johannesburg,
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- Mrs. Margaret Muthoni Njuwe,
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