

ABOUT AFROSAFE - Africa-wide campaign on radiation safety

All over the world, there has been a rallying call for radiation health workers to adhere to the principles of radiation protection and radiation safety. This has led to numerous successful campaigns such as Image Gently and Image Wisely in the USA. In 2012, during a conference on Radiation Safety by WHO and IAEA, the Bonn Call for Action was launched. This was followed by the launch of EuroSafe by the European Congress of Radiology in 2014. Africa could not afford to be left behind and this year, AFROSAFE was launched at the 8th biennial Pan African Congress of Radiology and Imaging (PACORI) on 17th February 2015.

Thus, AFROSAFE is a campaign made by radiation health workers in Africa for Africa. Through this Campaign we shall unite with a common goal to identify and address issues arising from radiation protection in medicine in Africa and we shall promote adherence to policies, strategies and activities for the promotion of radiation safety and for maximization of benefits from radiological medical procedures.

Our MISSION is to ensure that the benefits outweigh the risks for all medical radiation exposures in Africa.

Our GOAL is that all radiation-based procedures are appropriate, justified and optimized for maximum benefit to the patient.

Our VISION is for all radiation-based medical procedures in Africa are beneficial.

Our AIMS are to promote the safe and beneficial use of radiation through the following actions:

1. Ensuring that benefits outweigh risks in all radiological medical procedures.
2. Fostering regular radiation dose monitoring, recording and reporting.
3. Campaign for the establishment and implementation of regulations to standardize the practice of radiation health workers.
4. Promote and assist in the development of policies, guidelines and appropriate criteria for the safe use of radiation in health care at all levels.
5. Advise and advocate for the establishment of procurement procedures of radiological equipment as per national guidelines.
6. Promote and assist in the conducting of regular professional development and training on radiation safety.
7. Advocate for the creation of public awareness on radiation safety
8. Lobby for research funding in radiation safety.
9. Stimulate and uphold the development of a radiation safety culture in health care settings.

Our IMPLEMENTATION PLAN is to encourage each country to set up an all inclusive AFROSAFE national steering committee which includes:

1. Radiologist
2. Radiographer
3. Medical physicist
4. Representative from radiology association
5. Representative from radiography association
6. Training institutions
7. Patient Interest groups

From this committee a National AFROSAFE CHAMPION shall be selected to spearhead the campaign and represent the country during continental/ regional meetings.

The AFROSAFE IMPLEMENTATION TOOL MATRIX outlines SIX strategic objectives to be achieved in the period 2015-2018. Each country is encouraged to customize the Tool depending on the country's needs and priorities. The suggested timelines are for guidance but it is hoped that by the next PACORI and ASR meetings there will be several country representatives showcasing where they are in terms of radiation protection and safety.

The MANDATE of the National steering committees is to ensure that they:

- 1) Share data – research, publish, discuss on radiation safety in different forums
- 2) Champion for radiation safety and promote a radiation safety culture
- 3) Invite speakers from AFROSAFE and other similar campaigns to participate in their National society meetings to raise awareness of the campaign and the strategic objectives to be achieved. Prof. Kimberley from Image gently, Ms. Debbie Gilley from IAEA and Dr. Maria Perez from WHO continued to pledge their support
- 4) Organize for the launch of National Chapters e.g. Uganda launched their chapter on 5th-6th November 2015.

**IAEA WORKSHOP ON RADIATION PROTECTION IN PEDIATRIC IMAGING 9TH -13TH
NOVEMBER 2015, NAIROBI, KENYA.**

Number of participants

Countries represented: Kenya, Algeria, Egypt, Benin, Tanzania, Cameroon, Seychelles, Uganda, Mauritius, Madagascar, Zambia and Burkina Faso, Ivory Coast

Experts present were from IAEA- Debbie Gilley, WHO- Dr. Maria Perez, Image Gently (USA) - Prof. Kimberly Applegate, individual experts from US- Dr. Geoffrey Korir, Kenya- Dr. Jeska Wambani and Algeria- Prof. Boudjema Mansouri and Dr. Nadia.

Regional perspectives on radiation protection in pediatric imaging; member state presentation

All member states presented their current status. Identical challenges were seen across board. Many did not have pediatric radiologists, dedicated pediatric rooms, research, medical physicists and adequate regulation.

All member states did not have imaging referral guidelines and imaging protocols

IT WAS AGREED THAT:

1. Each country member present becomes the champion to promote pediatric imaging and to organize
2. In tandem with AFROSAFE each country comes up with a 6-month project which they will report on the 3rd and 6th month.
3. Countries in AFRICA can adopt and adapt imaging guidelines from Image Gently, ISR, EuroSafe and ACR. - Prof. Kimberley graciously volunteered to help us develop protocols in ultrasound and CT
4. An INTERACTIVE AFROSAFE WEBSITE will be set up and will have information on:
 - a. How many countries have data on DRLs? QA programs, Regulation? What assistance do they need.
 - b. Training- Number of medical schools training radiology

- c. Number of medical schools training radiography students
 - d. Number of medical schools training radiotherapy students
 - e. Number of diagnostic radiographers in your country, therapy radiographers radiologists, radiation oncologists, nuclear medicine physicians, medical physicists
 - f. What ionizing equipment do you have in your country?
 - g. General radiography- analogue, CR, Digital
 - h. General radiography analogue- what film-screen combination is you institution or country using? Blue sensitive or green sensitive?
 - i. Dental radiography
 - j. Fluoroscopy machines
 - k. CT scans
 - l. MRI
 - m. Nuclear- Gamma Camera
 - n. Cancer treatment centers- Cobalt, Linear accelerator
 - o. Interventional radiology units
 - i. Cathlab
 - p. Image intensifiers for theatre and endoscopy
 - q. PET
 - r. How many countries member states received QA/QC kits from IAEA? Are they calibrated? They should be calibrated every two years
5. How many countries have established radiology societies, radiographers societies, paediatric radiographer societies? Can we have a link person to share contacts and interact?
6. Encourage incident and accident reporting

QUESTIONS/ANSWERS TO BE PUT IN THE WEBSITE

- 1) When should I do QA/QC on a machine? New equipment, before acceptance test
- 2) When should I repeat QA/QC? For regular maintenance, every time I change a machine part
Where do I start in developing DRLs, what data do I need? Age, sex, weight, clinical history, CTDI and DLP which is usually recorded on the machine after every examination
- 3) DRLs for OPTIMIZATION need addition information, the above factors including scan length, slice thickness/beam collimation, scanner manufacturer and model, exposure factors, IMAGE QUALITY
- 4) What is the sample size for DRLs?

AVAILABLE RESOURCES:

- 1) CR exposure factors are in Image Gently website
- 2) Survey.unscear.org- site to provide national and regional data on the use of radiation in medicine