Championing radiation safety in Africa

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What is AFROSAFE?

AFROSAFE is a campaign launched at the 8th biennial PACORI congress (Pan African Congress of Radiology and Imaging) on 17th Feb 2015 in Nairobi, Kenya.

PACORI includes radiologists, radiographers, medical Physicists, biomedical engineers and manufactures/supplies of imaging equipment
Main objective

To unite with a common goal to identify and address safety issues arising from the use of radiation in medicine in Africa
Recommendations of the Bonn Conference 2012

Bonn Call for Action

10 actions to improve radiation protection in medicine in the next decade

Medical radiation exposures are now the largest contributor to the exposure of the population to radiation from artificial sources (95%), only exceeded worldwide by natural background as a source of exposure.

http://www.who.int/ionizing_radiation/about/med_exposure/en/
Bonn Call for Action

1. Enhancing implementation of justification of procedures
2. Enhancing implementation of optimization of protection and safety
3. Strengthening manufacturers’ contribution to radiation safety
4. Strengthening RP education and training of health professionals
5. Shaping & promoting a strategic research agenda for RP in medicine
6. Improving data collection on radiation exposures of patients and workers
7. Improving primary prevention of incidents and adverse events
8. Strengthening radiation safety culture in health care
9. Fostering an improved radiation benefit-risk-dialogue
10. Strengthening the implementation of safety requirements (BSS) globally

http://www.who.int/ionizing_radiation/about/14-2649_bonncallforaction.pdf?ua=1
Related campaigns

- EuroSafe (ISR)
- Image Gently: radiation protection for paediatric patients (USA)
- Image Wisely: radiation safety in adult medical imaging (USA)
Goal of AFROSAFE

Encourage adherence to standards, policies, strategies and activities for the promotion of Radiation Safety and for maximization of benefits from radiological medical procedures

the 8th biennial PACORI congress
VISION: All radiological medical procedures in Africa are beneficial.

MISSION: To ensure that the benefits outweigh the risks for all medical radiation exposures in Africa.
Challenges of radiation safety in Africa

1. Inadequate / Lack of adherence to institutional clinical practice guidelines
2. Minimal funding and engagement in radiological research
3. Lack of policies and regulation in the training and practice of radiation medicine profession.
4. Inadequate awareness of the radiology safety policies
5. Non-adherence to laid-down procedures for procurement, maintenance, decommissioning and disposal of radiology equipment.
6. Insufficient awareness about radiation doses and the associated risks in the other health professions (Non-radiological).
STRATEGIC OBJECTIVES
Objective 1: To strengthen the overall radiation protection of patients, health workers and public

Radiation safety culture and implementation

- Enhance quality assurance programs in medical exposures
- Each country to maintain a register of all radiation workers and their annual cumulative doses, the radiation-emitting equipment
Objective 2: To promote safe and appropriate use of ionizing radiation in medicine

Justification, education and training of health worker, radiation safety culture

- Policy evidence based guidelines on the safe use of radiation from the community to national level
- Regulations to standardize the practice of all radiation workers (code of conduct)
- Institutionalize the role of medical physicists in radiation medicine
Objective 3: To foster improvement of the benefit/risk dialogue with patients and the public

Global information Benefit-risk dialogue

- Awareness creation of radiation safety through public lectures, print and electronic media
- Regular reporting of radiation dose analyses in publications, seminars and conferences
Objective 4: To enhance the safety and quality of radiological procedures in medicine

Optimization, prevention of incidents/accidents through audit

- Improve image quality through clinical-specific facility protocols
- Documentation of patients’ radiation doses in all procedures in order to develop dose data (radiation dose tracking)
- Implement regular audit of imaging techniques and treatment procedures
- Institute emergency preparedness measures
Appropriateness Criteria

- These are evidence-based guidelines to assist referring physicians and other providers in making the most appropriate imaging or treatment decision for a specific clinical condition. Employing these guidelines helps providers enhance quality of care and contribute to the most efficacious use of radiology
Objective 5: To Promote radiation safety in radiological equipment and facilities

Manufacturer’s role

- Enforce procurement procedures and radiation safety in facility layout as per national regulation

- Regular maintenance and calibration of equipment
Objective 6: To promote research in radiation protection and safety

- Prioritize research in radiation safety at institutional and national level
- Increase research grants in radiation issues
How is AfroSafe being achieved?

LOGICAL FRAMEWORK APPROACH

Implementation of AFROSAFE actions are being carried out by steering committees (SCs) in each country or in each professional society. This steering committee will report to the AFROSAFE executive.

- Action plan- Time frame
- Outcome
Where to start with AfroSafe?

**Continental level**
- Registration, Contact person in the country

**National Level- Form steering committees**
- Activities at National level
  - Record keeping
  - Statistics- How many facilities in our countries use ionizing equipment, how many patients are done
  - Is there a register for radiation doses
  - DRLs
  - Develop protocols for CT and other imaging modalities
Accreditation

Accreditation of facilities or equipment

Computed Tomography

- The CT Accreditation Program involves submission of clinical and phantom images, dose measurements and scanning protocols

Mammography

- The Mammography Accreditation Program provides peer review and feedback on staff qualifications, equipment, quality control and assurance, image quality and dose
Diagnostic Imaging center of excellence

Areas of Assessment

- Governance
- Personnel
- Facility organization and management
- Physical environment
- Equipment and IT infrastructure
- Radiation and general safety
- Quality management
- Policies and procedures
- Patient rights
- Medical records
National Radiation data registry

- Diagnostic Reference Levels
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- Ms. Catherine Muchuki - AFROSAFE Vice Secretary
THANK YOU