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Newsletter

**AUG
2019**

Volume 1
No. 3

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The President's Corner: **ACCESS TO RADIOTHERAPY IN AFRICA**

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Global cancer burden is estimated to have risen to 18.1 million new cases and 9.6 million deaths in 2018. About 60% of the cancer cases worldwide occur in low and middle income countries (LMICs), including Africa. Radiotherapy is one of the main components of cancer treatment and requires substantial investment in infrastructure and training. Many radiotherapy departments in LMICs continue to have basic facilities and use simple techniques, while modern technologies have largely been installed in big cities in upper-middle income countries. More than 50% of cancer patients requiring radiotherapy in LMICs lack access to treatment.

Africa, with 54 countries and over 1.2 billion population, has 25 countries having access to radiotherapy services. These are Algeria, Angola, Botswana, Cameroon, Egypt, Ethiopia, Gabon, Ghana, Kenya, Libya, Madagascar, Mali, Mauritania, Mauritius, Morocco, Namibia, Nigeria, Senegal, South Africa, Sudan, Tanzania, Tunisia, Uganda, Zambia, and Zimbabwe. There exists about 380 installed external beam radiotherapy equipment in 215 radiotherapy centres within the Africa region. With the increasing growth of cancer burden in Africa, FAMPO encourages the establishment of more well-resourced radiotherapy centres, as part of comprehensive cancer control mechanisms within the region.

Long live FAMPO!

FAMPO 10TH ANNIVERSARY



**Watch out for next edition of
newsletter**

WORKSHOP ON DIAGNOSTIC REFERENCE LEVELS HELD IN ZIMBABWE

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Diagnostic Reference Levels (DRLs) are also recognized as an important tool for optimization of radiation protection of patients in diagnostic imaging. Their utilization, however, is insufficient. Human resource limitations and lacking knowledge are recognized as challenges, particularly with respect to highly qualified personnel such as medical physicists and other professionals.

A Regional (AFRA) Training Meeting on Developing Diagnostic Reference Levels (DRLs) for adult Computed Tomography (CT) took place at Bulawayo, Zimbabwe, from 10-13 June 2019. The meeting was organised under the framework of the International Atomic Energy Agency (IAEA) Technical Cooperation project RAF9059 “Strengthening Member States Technical Capabilities in Medical Radiation Protection in compliance with requirements of the new International Basic Safety Standards (BSS)”. The meeting was organized under the auspices of the National University of Science and Technology (NUST), Bulawayo, Zimbabwe and the IAEA.

The objective of the training program was to build capacity of Working Group for Developing DRLs for Adult CT in Africa. The training meeting focused on overview of the projects and its importance, the process for establishing DRLs, member states presentation, data analysis and report writing among others. The purpose of the meeting was to complete the analysis of data collected and write a regional paper for Africa to be published. Participating countries were also to establish their national DRLs and provide information for the regulatory authority to use during inspection for compliance.

Agenda for the meeting covered definition of scope and activities of the project; process for establishing DRLs; calibration of CT scanners; training of data collectors; image quality; Analysis of data and conducting research; writing and presenting of reports; development of time lines for project; development of project ideas and methodology.

In all fifteen (15) participants from ten (10) African countries participated in the training program, in addition one (1) IAEA Technical Officer and the Course Coordinator. Participants were from Algeria, Cameroon, Ghana, Kenya, Namibia, Niger, Nigeria, Senegal, Tunisia and Zimbabwe. The IAEA Expert was Dr. Debbie Gilley (Technical Officer for RAF9059) and the Course Director was Prof. Godfrey Azangwe (National University of Science and Technology, Zimbabwe). IAEA provided resources and course material for the training program. This included; Lecture notes, and other reference materials.

Recommendations

The following recommendations have been suggested for implementation:

- Need to collaborate strongly with Regulatory Authorities and other Stakeholders on the project.
- Participating countries were encouraged to publish their national data, which will feed into a regional one.
- Data collection to be extended to cover more CT Centres.
- Involvement of Radiologists, Radiographers, etc. in the project was identified as being critical to the success of the project.
- Need for Training of Data Collectors
- Disseminate findings to Regulatory Authority and other stakeholders
- Upon completion of adult CT DRLs, the next stage of the project will be conventional X-ray and fluoroscopy.

In Conclusion, the meeting was successful. Participants consolidated their knowledge on the methodology to collect data, analysis and writing a paper to be published for the purpose of establishing Africa DRLs. Acknowledgement goes to IAEA, government of Zimbabwe and the National University of Science and Technology.



Practical session in the hospital



Photograph of participants



57th SAAPMB Congress 2019

The 57th annual congress of the South African Association of Physicists in Medicine and Biology will be held from 28 October – 1 November 2019 in Cape Town. FAMPO members qualify for the heavily discounted registration rates of USD 100.- until the early bird deadline!

The congress theme is “New Technologies & Techniques” and the organizing committee would like to invite you to submit an abstract for oral or poster presentation. Abstracts will be published in the FAMPO journal “African Journal of Medical Physics”.

For more information and congress registration please visit www.saapmb2019.com.

Chris Trauernicht
(Chair of Organizing Committee)



IDOS 2019 SYMPOSIUM – AN EVENT NOT TO BE MISSED

Mr. C. Trauernicht (South Africa) – cjt@sun.ac.za | Dr. F. Hasford (Ghana) – haspee@yahoo.co.uk

The International Symposium on Standards, Applications and Quality Assurance in Medical Radiation Dosimetry (IDOS 2019) took place at the IAEA headquarters in Vienna from 18 – 21 June 2019.

Radiation dosimetry is a major component in the daily life of a medical physicist and as such this symposium was a must-attend. The symposium consisted of a combination of educational courses, topical sessions with invited speakers, oral and poster presentations, as well as various round-table discussion sessions. Various aspects of medical radiation dosimetry were covered, from radiotherapy, diagnostic radiology and nuclear medicine dosimetry, to standards laboratories, development of new standards, dosimetry audits and alpha emitter dosimetry.

Over four hundred participants from 78 countries and 18 international and professional organizations also made this symposium a fantastic opportunity to network with fellow professionals and to get to know new ones. A number of FAMPO medical physicists had the good fortune of being able to participate and present their work at the symposium. African presentations seemed to have a strong emphasis on medical physics audits as best practice in radiotherapy, as well as the use of diagnostic reference levels in X-ray imaging. Other work presented by FAMPO members included out-of-field dosimetry, small field dosimetry (including its uncertainties), energy responses of glass dosimeters, as well as nanodosimetric track analysis in a proton beam. The African secondary standards laboratories were also represented at the symposium.

The symposium also marked the 50-year anniversary of the IAEA/WHO dosimetry audit service for radiotherapy, which many African centres have benefitted from in the past.

At the closing ceremony, Prof. Debbie Van Der Merwe (Scientific Secretary for IDOS 2019), appreciated the contribution of sponsors and participants at the event. The book of extended synopses is freely available for download from the symposium website

<https://www.iaea.org/sites/default/files/19/06/cn-273-book-extended-synopses.pdf>.



AFRICAN JOURNAL OF MEDICAL PHYSICS (AJMP)

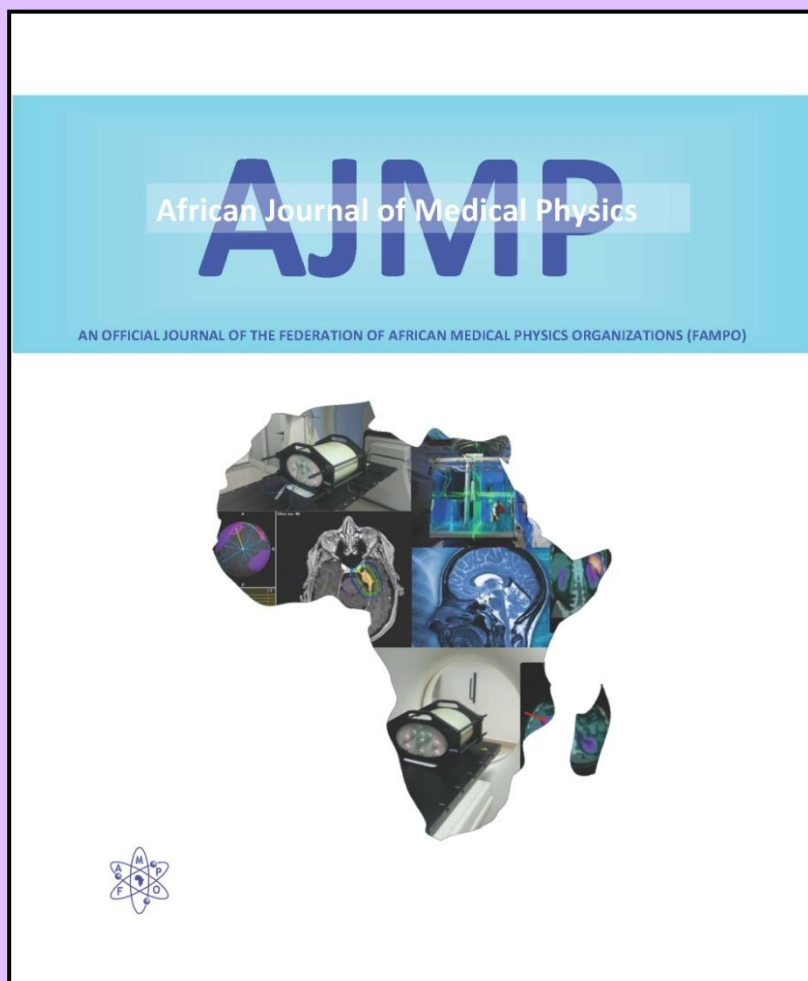
The **African Journal of Medical Physics (AJMP)** publishes novel and high-quality research papers and other material on all topics relating to medical physics, biomedical sciences, medical imaging and molecular imaging for diagnosis, therapy and disease management. The journal provides an effective way to publish original research articles, review articles, short communication, rapid communication, letter to the editor, case report etc.

The **AJMP**, official scientific journal of FAMPO, has an ISSN No. (ISSN 2643-5977) from the Library of Congress of the United States and is online (<http://globalmedicalphysics.org/>). The journal is published by the Harvard University Press.

Authors can now submit their articles for publication through the journal's website at <http://globalmedicalphysics.org/>

Medical Physicists in the Africa region are encouraged to submit high quality research articles, conference proceedings and abstracts for publication in AJMP.

Further details could be obtained by contacting the Editor-in-Chief, Prof. O.B. Awojoyogbe (awojoyogbe@yahoo.com).



CALL FOR NOMINATIONS: 2019 IDMP AWARD

The IOMP is pleased to seek nominations for the IDMP Award. This award recognizes excellence in Medical Physics with a particular view of promoting medical physics to a larger audience and highlighting the contributions medical physicists make for patient care. The IDMP Award is linked to the **International Day of Medical Physics (IDMP)** from which it takes its name. The 2019 IDMP theme is **"It's a Medical Physics World!"**

The 2019 IDMP Award will be given on the occasion of the celebration of the International Day of Medical Physics (IDMP) and will be announced on November 5, 2019.

The IDMP Award consists of an IOMP certificate, and additionally a short biography of the awardee will be published in the IOMP Newsletter Medical Physics World.

Criteria for selection:

- The recipient of the award should be a professional medical physicist holding a master's or higher degree or equivalent, who is an active member of the relevant Medical Physics society.
- The recipient should have taken active part in promoting medical physics, nationally or internationally.
- The recipient should have performed original and/or applied work of high scientific quality or made a significant professional contribution to Medical Physics in the past three years.
- It may be noted that only deserving candidates will be selected. If no one meets the requirements from the region, no award will be given.

Nominating Procedure

- Deadline for nomination is **30 September 2019**.
- The President of each IOMP Regional Organization is kindly requested to nominate **three medical physicists** from her/his respective region. The Presidents of AAPM and COMP are kindly requested to nominate jointly three medical physicists from the North American region. Nominees should be full members of an IOMP National Member Organization (NMO).
- Self-nomination will only be considered in exceptional circumstances.
- Nominations are to be made to the chair of the IOMP Awards and Honours Committee (AHC)
- The nomination should include the following:
 1. A letter of not more than 1,000 words evaluating the nominee's achievements and identifying the specific work to be recognized.
 2. A Curriculum Vita including all publications and professional contributions to Medical Physics organizations.



2019 Plan Competition Timeline

- Registration Opens: 29 June 2019
- Start Date: 15 July 2019
- Plan submission deadline: 25 August 2019
- Plan Evaluation: 10 September 2019
- Contacting the top 20 planners: 20 September 2019
- Awards announcement: 1 October 2019

Awards

Prizes will be awarded, as offered by the Chinese Society of Medical Physicist.



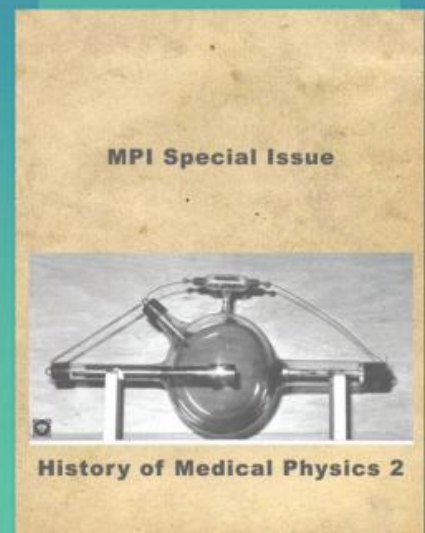
MEDICAL PHYSICS *International*

EDITORIAL

FLUOROSCOPIC TECHNOLOGY FROM 1895 TO 2019 DRIVERS: PHYSICS AND PHYSIOLOGY

THE SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENTS IN MAMMOGRAPHY

REVIEW OF PHYSICS OF MAMMOGRAPHY



The Journal of the International Organization for Medical Physics

Volume 7, Number 2, July 2019

MPI

Medical Physics International, Vol. 7 No. 1 & 2 (<http://www.mpijournal.org/>)

International Medical Physics Week (IMPW)

International Organization for Medical Physics
Fairmount House, 230 Tadcaster Road, York, UK

BACKGROUND

The concept of International weeks has been around and accepted by United Nations www.un.org/en/sections/observances/international-weeks

There are 10 weeks listed on UN website. Further there are 7 international weeks by UNESCO: en.unesco.org/commemorations/international-weeks

While these are based on UN observance, professional societies are free to initiate weeks and seek UN approval, if so needed. Thus, it is similar to International Day. We started International Day of Medical Physics (IDMP) and have yet to approach UN for recognition.

IOMP decides to launch International Medical Physics Week (IMPW) somewhat similar to International Day of Medical Physics (IDMP). The purpose is to motivate organization of activities in a defined week that result in the promotion of the subject of medical physics globally, in particular by arranging meetings with official bodies. For more information see www.iomp.org/impw

WHEN?

- Mid-month week in May each year. For 2020 (11-15 May)

HOW AND WHO?

Organization of activities all over the world by medical physicists as:

- Educational sessions (face-to-face or virtual)
- Campaigns
- Meetings with decision making bodies, professionals of clinical specialties
- Chats and social media

PROMOTION

- International Medical Physics Week webpage on IOMP website www.iomp.org/impw

RECORD OF ACTIVITIES AND FEEDBACK

- IOMP-MPW webpage www.iomp.org/impw-activities

ABOUT FAMPO

The Federation of African Medical Physics Organizations (FAMPO) is the regional federation of the International Organization for Medical Physics (IOMP) in Africa. FAMPO is a non-profit-making organization established in March 2009 to promote the application of physics in medicine.



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