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Empowering Africa from 2D to 3D radiotherapy techniques through the access to care virtual teaching platform

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Purpose: While some parts of the world are progressing to advanced radiotherapy techniques, the basics of access to radiotherapy treatment units, treatment planning systems and dosimetry equipment remains a continuing challenge throughout Africa. The impact of this on lower middle income countries (LMIC) has left a limitation in access and innovation to radiotherapy treatment and planning.

Method & Results: Through enabling a virtual radiotherapy training programme with the Access to Care platform, simple 2D to 3D radiotherapy techniques were taught and visualized by participants. It has provided some of the LMIC radiotherapy centers with improved radiotherapy 3D techniques that allows for better treatment and reduced side effects for patients as normal tissue sparing is realized.

Results: The integrated three weeks course based at Groote Schuur Hospital, in Cape Town, South Africa and with a multidisciplinary approach of Radiation Oncologists (RO), Medical Physicists (MP) and Radiation Therapists (RTT), it has shown results of 25% improvement in the participants understanding of immobilization devices and techniques in a post survey that was done. An improvement of 41% in areas such as localizations and imaging was gained by participants and 3D planning knowledge improved by 30%. The Access to care training programme which is a collaboration between the University of Cape Town, Cape Peninsula University and Varian as well as RTT training at Groote Schuur Hospital, had benefited teams representing neighboring African countries such as Zimbabwe, Ghana, Cameroon, Tanzania, Ethiopia and Libya as well as International Atomic Energy Agency (IAEA) fellows in Congo, Dominican Republic and Kenya. Surveys done before, during and after the course were instrumental in determining the overall effects and value of the course.

Conclusion: Apart from this current teaching platform at Groote Schuur Hospital, the future initiative is to offer advanced techniques courses which are to be aimed at local South African radiotherapy centre teams.

Recent Publications

1. American Cancer Society. Global Cancer Facts & Figures 3rd Edition. Atlanta: American Cancer Society; 2015
2. Parkes J, Burger H, Wyrley Birch B, Ventim J-M and Groll J (2016) 056. The Cape Town Access to Care course, our ongoing teaching journey. 32(2):159-160.

Biography

Lindsay Jaftha is the Assistant Director in Radiation Therapy at Groote Schuur Hospital, Radiation Oncology, Cape Town, South Africa. Her expertise in radiotherapy dates from being qualified since 1998 and working within the public sector, private sector and abroad in the United Arab Emirates and the Kingdom of Saudi Arabia. Currently, she is the Head of the radiation therapists at Groote Schuur Hospital and is passionate about teaching and skills development in Radiotherapy. She has affiliations with Cape Peninsula University through being an alumnus, her involvement in the Department of Medical Imaging and Therapeutic Services Radiography Advisory Board, being a staff and student clinical mentor and research supervisor for Radiotherapy post graduate students.

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