



## MEFOMP Executive Committee Virtual Meeting



At the beginning of Oct 2020, and after months of freezing the meeting due to Covid 19 and crisis, MEFOMP ExeCom organized a virtual meeting for the members w/c called by the Secretary General, Dr. Mohammad Hassan Kharita.

The meeting started by Dr. Huda Al Naemi, MEFOMP President welcoming everyone and making sure that Medical Physicist teams are taking all precautions to keep themselves and their staff healthy and well. She also took the opportunity to congratulate the 14 winners of MEFOMP

award "MEFOMP Award for Best Medical Physicist during Covid 19".

The ExeCom members discussed the publications from most of the countries in regards of their contributions as Medical Physicists and their challenges to Covid 19. The Secretary General also announced that all these articles published in the website for the contributions will be gathered and will be a book chapter in future publication with Taylor n Francis which is a special Monograph on Medical Physicist contributions during Covid 19.

The committee also discussed a proposal from Mr. Refaat Al Mazrou, Chairman of Education Committee to run several MEFOMP webinars on chosen topics to be decided later. The proposal has been welcomed by all the members and approved by the ExeCom committee. Dr. Hanan Al Dosairi, Mr. Nabil Iqeilan and Dr. Rabih Al Hamoud updated the committee about the Women Committee, Newsletter and budget respectively.

The meeting closed with everybody willing to have continuous communication between the MEFOMP ExeCom and Medical Physicist Communities of each countries to promote the Medical Physicist as a Profession. Dr. Huda as the President again encouraged everyone to take the precautions and keep the continuous education carried on while attending the International e-learning courses and webinars which are being organized by the International Organizations such as IAEA and IOMP.

## Winners of the MEFOMP Award for Best Medical Physicist during COVID19

As appreciation for hard work of the medical physicists in the region , MEFOMP ExCom have decided to give a special MEFOMP award under the title of "MEFOMP Award for Best Medical Physicist during COVID19" as a recognition for the good work of the winners during this crises and to highlight the Medical Physics community who played an important role during this pandemic COVID19.

This award recognizes and celebrates individuals who have played a crucial role during the coronavirus pandemic. Specifically, it acknowledges their significant and outstanding contributions, which have led to improved outcomes for the health care system during this unprecedented time.

The Award and Honors Committee is glad to announce that the winners of this award are as follows:

Country	Awardees
Iraq	Saif Ameer Rashid
Jordan	Mr. Haitham Kanan
Kuwait	Mr Faisal Shenawy & Ms Thekra Alshemmari
Lebanon	Ms. Hanane Rima
Oman	Ms. Fatma Al Hashmi, Ms. Mahra Al Farsi & Ms. Noura Al Makhmari
Palestine	Dr Sharif Hasan Ghithan
Qatar	Dr Mohammad Hassan Kharita & Dr Rabih Wafiq Hammoud
Saudi Arabia	Mr. Ahmed Nobah
Syria	Dr Abdulkder Sadiyyah & Dr. Anas ISMAIL



We are hoping that this crisis will soon be over and we would be able to continue with our daily lives. COVID-19 Pandemic will only be found in our history books , but the hared work for some of us , will not be forgettable , MEFOMP taking this opportunity to congratulate the winners from all countries and wish them and all Physicists a very good luck

**Dr Afkar Al Farsi**

Chair Award and Honors Committee, MEFOMP

## Middle East Conference of Medical Physics 2020, Kuwait



*Speakers and Organizers of the Conference*

The Kuwait Association of Medical Physics (KAMP), in collaboration with the Middle East Federation of Organizations of Medical Physics (MEFOMP) organized the Middle East Conference of Medical Physics which was held from 26th to 28th January 2020.

The conference focus was:  
"Recent Advancements in Radiation Medicine".

More than 130 participants from Kuwait and other parts of the Middle East attended the conference. Five international and fifteen national speakers participated in the conference.

Dr. Huda Al Naemi, President of MEFOMP opened the conference and gave an overview of medical physicists in the Middle East.

The theme in day one covered the leadership of medical physics by the international speaker, Prof. Carmel J. Caruana, and the role of medical physics in radiotherapy, nuclear medicine and diagnostic radiology. The second day theme covered the image processing and molecular imaging. On the third day, the topic was about Advanced Techniques of Radiotherapy.

## MEFOMP partnered with ICRM2020 Organizers for a pre - ICRM2020 Workshop, KSA



*Organizers of the pre-ICRM2020 workshop.*

Middle East Federation of Organizations of Medical Physics (MEFOMP) participated in organizing a medical physics day as a prelude to the International Conference on Radiation Medicine (ICRM2020). The workshop entitled "Physicists in Medicine, Qualifications, Standardization and Innovations" was conducted.

Dr. Meshari AlNuaimi, Vice President of MEFOMP and Mr. AlMazrou Chair of the Education & Training Committee (ETC) of the MEFOMP collaborated with ICRM2020 organizers for this workshop.

The program included lectures given by members of MEFOMP Executive Committee. Dr. Huda Al Naemi presented a lecture entitled "Medical Physics in the Middle East: Current Status and Future Directions". Mr.

AlMazrou gave a lecture entitled "Medical Physics in the Kingdom of Saudi Arabia: Current Status and Future directions". Both lectures gave an overview of the current equipment and staffing available in addition to the different education and training programs available in the area and the Kingdom. Additionally, speakers gave their views on the possible solutions to rectify the medical physics profession in the area. Dr. Hanan AlDousari, Chair of MEFOMP Women in Medical Physics Committee, also gave a lecture entitled "Women Medical Physicists in the Region". She gave a full picture about the current situation of women, showing their participations and involvements in the field.

Furthermore, the workshop was also graced by an international speaker, Dr Soma Somanesan Senior Principal Radiation Physicist, Department of Nuclear Medicine and PET, Singapore General Hospital, Singapore. Dr. Somanesan has 30 years of experience in Medical Physics, Nuclear Medicine and Molecular Imaging at the Singapore General Hospital. The workshop also discussed the education and qualifications required to certify a clinically qualified medical physicist (CQMP), roles and responsibilities of the CQMP and recent advancements and innovations in the different fields of medical physics.

Moreover, it covered training of medical physicists through a Residency programs and shed lights on the North American standards on training, education and certification as an example.

This workshop was attended by a good number of participants including radiologists, oncologists, medical physicists, neurosurgeons, cardiologists, clinical scientists, radiological technologists, radiation safety officers, dentists, nurses, radiochemists, radiation therapists and biomedical engineers. They came from 40 countries around the world.

## Brachytherapy Services during COVID-19 Pandemic, Muscat, Oman



Simulation of Brachytherapy Treatment

Corona Virus Disease-19 (COVID-19) has resulted in a global pandemic with out of the ordinary impact on medical resources and personnel, and patient care access issues. Therefore, there are some periodic patient examinations and surgical decisions that were postponed.

Brachytherapy is a critical treatment for gynecological patients. The cervical cancer patients and any higher risk patients undergoing a combination of external beam radiation and brachytherapy should not be delayed under any circumstances for patients not displaying COVID-19 symptoms. However, during this global pandemic, the precautions should be done and followed in order to reduce the spread of the COVID-19 virus while maintaining all opportunities to recovery for all patients.

Based on the international recommendations as the American Brachytherapy Society, is to maintain Brachytherapy services for patients. BT service in National Oncology Centre, Royal Hospital, Muscat, has not stopped during the COVID-19 pandemic.

The periodic maintenance and QA's for the HDR Afterloader is being done to avoid any interruption during patient treatment. To shorten the treatment time and patient exposures, the Radiation Oncology Medical Physicists and Medical Engineer under the supervision of the Radiation Protection Advisor from Radiation Protection Service, MoH, changed the old HDR source and replaced, in addition, the acceptance tests of new HDR sources were done. All these producers were done with the optimal safety precautions recommended by the World Health Organization.

## The Contribution of Medical Physicists in Radiation Oncology Department during COVID-19, Muscat, Oman



**Zakiya AL Rahbi, Ph. D.**  
Sr. Specialist Medical Physicist  
National Oncology Center,  
The Royal Hospital, Muscat,  
Sultanate of Oman

As for my place of work in the Radiation Oncology Department in the Royal Hospital, Muscat, the Radiation Oncology, physicist team was divided into two groups so that there was only one group - consists of three physicists- in the department; to reduce the possibility of spreading the infection and for support and ready to switch in case of need and any emergency so that the service would not be interrupted, and there would be a switch every three days. The most urgent work for the Radiation Oncology physicists is the treatment planning, second checks, patient-specific QA, and weekly machine QA. There was a trial for the remote connection to treatment planning devices so that the physicists could work from home.

There are two remote discussions that took part weekly to discuss new planned cases and other issues related to the patient-specific QA and machine QAs and to solve questions regarding the physics. Moreover, most of the physicists improve and update their knowledge and skills via attending webinars and virtual training and courses. The Quality Control tests are done routinely, whereas the acceptance checks for new devices (not commenced with clinical service) have been postponed, except the acceptance tests for the new HDR source.

Related to Health physics, the personal TLD monitoring period was increased to two months instead of one month. Additionally, any suspected or infected staff, his/her TLD is kept in a separate envelope, and the Radiation Protection Service will be informed.

During the hours' work, the Radiation Oncology physicists take the optimal precautions to reduce the opportunities of being infected or spreading COVID-19 via wearing the mask and avoiding going to crowded places like the treatment waiting area. They regularly and thoroughly clean their hands with an alcohol-based hand rub (there is at least one in each Treatment planning room) or wash with soap and water. Moreover, the physicists maintain at least 2 meters distance between themselves by using TPS workstations that are kept at a distance. Generally, this period is an opportunity to update the quality checks and workflow protocols and policy documents.

## HMC Radiation Oncology Department's experience during COVID-19 pandemic, Doha, Qatar



*Greeters at the Reception in Oncology Department.*



*Medical Physicist on duty during the Covid-19 pandemic.*

The National Centre for Cancer Care and Research (NCCCR) is the only hospital in Qatar providing comprehensive cancer care and radiation therapy. It is anticipated that during the outbreak, NCCCR may be impacted by significant staff shortages that could potentially affect our ability to deliver routine cancer care to patients in the form of Radiation therapy. Accordingly, at the start of the escalation phase of the COVID pandemic, mitigation measures have been implemented across HMC, NCCCR and our Department, to minimize risk of exposure to the novel coronavirus, protecting Staff and Patients.

As an immediate response to the pandemic, a dedicated 'Task Force' has been created, with representatives from every Team in the Department (doctors, physicists, therapists and nursing), and will work closely together with the Infection Control team monitoring the crisis, identifying active issues and planning strategies as the epidemic evolves.

The Task Force developed a Clinical Response Plan which contains general measures introduced at the beginning of the outbreak, to protect Patients and Staff. It moreover seeks to stratify appropriate adjustment of the clinical service, dependent on the staffing level. As the pandemic evolves, this document will be reviewed regularly and adjusted.

In developing this plan, the following principles were observed:

- Protection of Staff and Patients from COVID-19 infection by applying risk mitigation strategies;
- Where possible those treatments that provide a chance of long-term cancer control or cure will be prioritized;
- Treatments aimed at palliation alone or a minimal extension of life may have to be temporarily deferred or suspended during the peak of a COVID outbreak;
- Patients who have commenced a course of radiation therapy should be prioritized and supported in completing their treatments;

This Clinical Response Plan also aims to describe recommended staffing adjustments. The teams - all medical and non-medical Staff were divided in two separate entities, i.e. two Teams: Team 1 and Team 2, working in 2 shifts daily. These shifts are fixed, i.e. either only in the morning or in the afternoon, without any swapping or contact between the two Teams, to minimize any potential spread of the infection between them, patients, as well as with other Team members across our Department.

With regards to education, the department continued providing internal educational presentations under the department's QCHP accredited educational activities. These are done virtually through Microsoft Teams.

Lastly, with regards to research Furthermore, we have submitted a research proposal to the IRB for the use of Low dose radiation therapy (LDRT) in the treatment of critically ill COVID-19 patients and is under review at the moment.

Furthermore, we have submitted a research proposal to the IRB for the use of Low dose radiation therapy (LDRT) in the treatment of critically ill COVID-19 patients and is under review at the moment. At this point in time, the department is still adhering to this guidelines and will continue to do so until there is a guarantee that COVID-19 infection is no longer a threat to our patients and staffs.

## Accomplishments during COVID 19 of the Biomedical Physics Department of King Faisal Specialist Hospital and Research Centre, Riyadh, KSA



**Refaat Al-Mazrou, M.Sc., FIPEM**  
Deputy Chairman  
Biomedical Physics Department  
Senior Medical Physicist  
King Faisal Specialist Hospital and Research Center

At the beginning of the outbreak of this pandemic, the department decided to reduce the number of workers coming to work and activated Tele-work using remote access to staff PCs and other authorized computers. Staff coming were based on the importance and necessity of their jobs. Staff whom required to perform physical activities (calibration, QC and others) were coming for that activity and leave as soon as the job is finished to minimize attendance at the hospital. In the month of May, the restrictions in the country at large were more flexible and more staff started to attend in full and part time. To protect the staff dealing with the TLDs, it was decided to ex-

tend the validity of the badges used for the first quarter of the year to be kept and used for the second quarter after arrangements with the local authorities.

With all these precautions and restrictions, department staff managed to perform the following activities and many others:

- Published one article in a Peer-reviewed journal.
- Department staff members were granted a collaborative project by KACST through Coronavirus funding.
- Staff presented three abstracts at International conferences.
- Two members of the department were nominated to participate in a project to manufacture an artificial respiratory system.
- Participation of our Secondary Standard Dosimetry Laboratory (SSDL) to an IAEA Regional Technical Cooperation
- Project as a leading laboratory and the only laboratory in the region.
- Department staff organized and presented three online RSO courses in August 2020.
- The 3D Printing Laboratory printed about 1000 Face shields to be used by the Hospital staff as protective tool for COVID-19.
- More than 200 eye protection goggles were 3D Printed for medical staff.
- The 3D Printing Laboratory substituted the commercial suppliers during the blockage times by printing tools for Prosthetics & Orthotics Department patients and Radiation Therapy Patients.
- Staff designed and prepared Nasopharyngeal swab model for COVID-19 testing.
- Commissioning of a new Total Body Irradiation (TBI) technique.
- Staff continued preparing treatment plans and performing patients' specific quality assurance (PSQA) procedures
- Staff implemented and completed the Medical Physics requirements to obtain the American College of Radiology (ACR) accreditation for five gamma cameras and two PET/CT systems.
- Performed annual testing on four Gamma Cameras and four Dose Calibrators and quarterly testing on three PET/CT systems.
- Performed acceptance testing on one CT system and annual testing on two CT systems.
- The SSDL continued its activities of calibrating different radiation detection devices.

## Strict Prevention and Control Measures During COVID-19 in RT, Lebanon



Since the COVID-19 pandemic outbreak, Radiotherapy (RT) departments who have more than one medical physicist worked in two shifts alternating every week. RT departments with only one medical physicist continued to treat patients as usual. Therefore, a maximum effort was required by the medical physicist who could not stop to provide treatment planning and QA, despite the increased risk of coronavirus infection.

To mitigate this burden, only urgent cases were appointed as new cases (e.g. spine compression) and treatments that could be postponed were rescheduled for a later time (after the lockdown). In this way the activity of the RT depart-

ments was reduced by almost 50%.

Since February 2020, RT departments in Lebanon have implemented strict infection prevention and control measures, with implementation of protection regulations, standard office sterilization, wearing of personal protective equipment (PPE), measurement of body temperature every day, splitting work force, and adjusting workload, etc.

The details of these measures are described below:

- Temperature measurement is mandatory at the access control point at the entrance of the radiotherapy area. In addition to basic medical clothing, goggles and gloves that must be worn by those who are responsible for disinfection and temperature measurement of patients and family members.
- Strict control of treatment time and treatment interval to prevent patients and their family members from interacting in the treatment area.
- Prevention and control of staff in the radiotherapy room and disinfection in simulation and treatment rooms (Clean and disinfect equipment: CT simulator, Linac and operation table surfaces, twice a day).
- Instructions for staff to take precautions during face-to-face meeting such as wearing mask all the time, keeping sufficient distance from other participants, opening windows for better ventilation, and minimize the meeting time. In summary, infection prevention and control measures have been successfully implemented in RT departments treating over 300 patients during the COVID-19 outbreak in Lebanon. So far, none of our radiotherapy staff or patients has been confirmed to be COVID-19 positive.

### **Dr Zeina Alkattar Elbalaa,**

Chairperson, Professional Relations Committee MEFOMP  
Certified Medical physicist  
Associate Professor - Researcher  
Rafic Hariri University Campus - Hadath