The global community has been terribly hit with the COVID-19 pandemic and Africa has not been spared in this war which presents one of the biggest existential threats to human life. As of 1st May 2020, there have been over 3 million confirmed coronavirus cases worldwide. Africa has recorded over 42,000 cases and over 1,700 associated deaths, with a number of African countries imposing a range of prevention and containment measures against the spread of the pandemic. In the midst of these difficult times, radiation medicine health facilities in several African countries are putting in place strict measures to ensure that health services are continually offered without compromising safety of patients, health personnel and the general public to the claws of COVID-19. It is on such note that I find as very essential that this edition of the FAMPO Newsletter is dedicated to the sharing of experiences on COVID-19 preparedness in the discharge of radiotherapy and medical imaging services in our region.

Even as we battle with COVID-19, we find it an opportune time to join hands with our mother body, the International Organization of Medical Physics (IOMP) as it launches the maiden edition of the International Medical Physics Week (IMPW). The IMPW is being celebrated from 11 – 15 May 2020 and I encourage all FAMPO members to support this noble and novel initiative. Let us through this celebration promote our noble profession. Long live FAMPO!

COVID-19 Factsheet for Africa

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment. Older people, and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop serious illness.

The best way to prevent and slow down transmission is to be well informed about the COVID-19 virus, the disease it causes and how it spreads. Protect yourself and others from infection by washing your hands or using an alcohol based rub frequently and not touching your face.

The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes, so it is important to also practice respiratory etiquette (for example, by coughing into a flexed elbow).

At this time, there are no specific vaccines or treatments for COVID-19. However, there are many ongoing clinical trials evaluating potential treatments. The World Health Organization (WHO) continues to provide updated information as soon as clinical findings become available.

Source: WHO (www.afro.who.int, 01 May 2020)
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Plan and Response to Deal with COVID-19 Threat in Radiation Medicine in Algeria

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The COVID-19 pandemic have witnessed a major health crisis, which has tested the best performing health systems in the world, with the consequence having a societal impact, economic but also health. This pandemic has significantly changed the organization of care in general but also our practice of medicine and surgery.

The current situation in Algeria to face the COVID-19 pandemic has prompted the Ministry of Health to set up a national scientific committee to make proposals for patient care, and to follow up the crisis as a command center daily. To do this, a review of the current literature from the experience of countries experiencing the full force of this pandemic (China, Italy, France, USA, etc.) and recommendations of international organizations as IAEA or WHO, allowed the committee to make recommendations in order to minimize the impact of this pandemic on patients by providing them with the conditions necessary to treat and protect them, but also to protect the professionals with an infection control guidance as cleaning, disinfection and availability of personal protective equipment (PPE).

In the majority of the hospitals CT equipment are available, and for an appropriate screening, the role of imaging is highlighted, considering the helpful use of CT. Thus, the thoracic CT intervenes at all the stages intervening in the diagnosis, or the follow-up. Its indications were specified in the management algorithm and took into account radiation protection measures. It is therefore recommended to carry out CT examinations according to the low dose energy and to report the doses (DLP) on the COVID-19 structured report disseminated to all radiologists.

As an example of that organization, at the level of one hospital located in the east of Algeria, on March 1, a series of measures has been taken to guarantee continuity of care and help to diagnose possible cases of COVID-19 by CT examination:

- Start by installing an advanced consultation post for all patients arriving at HCM to detect any symptoms of COVID-19
- Reorganize patient flows to separate potential COVID-19 carriers from other patients, especially for cancer patients whose immunity is reduced due to therapy; the oncology consultations has been relocated and an elevator reserved for patients undergoing treatment. The radiotherapy patient circuit has also been isolated.
- Dedicated CT for suspicious cases exams and planning of exam times.
- Creates a circuit for suspect patients that directly links the hospital entrance to the scanner room dedicated to COVID-19 examinations.
- Set up remote consultations for follow-up of cancer patients who have completed their treatments.
- Set up 3 telephone lines for remote consultation and orientation of possible COVID-19 patients.
- Undertake disinfection of the entire hospital daily from 5 p.m.
- Developed a guide of procedures for the nursing staff in contact with suspect patients.

It should be remembered that for radiology, radiotherapy and nuclear medicine, the basis of the safety recommendations for professionals remains identical: disinfection, distancing and protective measures.
COVID-19 pandemic has affected all activities and led to special precautions and actions to achieve and deliver our services in a safe way. All cancer patients were consequently involved at different levels especially they have different levels of immune system problems. The main concern was how to continue the activity while protecting patients, families, and health professionals from the infection.

The objectives are summarized and suggested solutions from our experiences, internal committee for emergency and WHO recommendations which guide the practices are listed below. Data for respective hospitals should be updated as per international feedback through authorized channels as follows:

1- TO ENSURE RADIATION THERAPY DELIVERY TO CANCER PATIENTS:
While the radiotherapy is a "life-saving" treatment and should be guaranteed to all cancer patients in which is indicated. Regional and hospital management must ensure the full functioning of the radiotherapy facilities, even in emergency conditions.

2- TO ENSURE SAFETY OF HEALTH PROFESSIONALS, PATIENTS, AND CAREGIVERS as follow:
   a. Put triage nurse for all daily forms filled by patients for COVID-19 symptoms at the access of Radiotherapy department.
   b. Provide a hydro alcoholic solution for hand disinfection at the entrance of the radiotherapy center.
   c. Wear surgical masks, as recommended for all health professionals and patients according to WHO indications, and in particular in the following cases:
      i) If the operator has respiratory symptoms, to protect others;
      ii) If the operator is in close contact with a person who has respiratory symptoms, to protect herself/himself.
      iii) Use sterile disposable overalls, sterile disposable gown, FFP2 masks, clogs, and overshoes when treating patients with suspected COVID-19 positivity, if they need to continue radiotherapy according to medical indications.

3- MANAGEMENT OF COVID-19 SUSPECT OR POSITIVE PATIENTS:
All should have guidelines for COVID-19 infected patients accessing radiotherapy facilities. We suggest personalized clinical assessment. If possible, these patients should be treated at the end of the LINAC shift to limit the chances of infection for other patients. After the treatment of positive patients (or patients waiting for diagnostic confirmation), the waiting and bunker areas should be sanitized at the end of the treatment session.

4- STAFF RE-ORGANIZATION:
To avoid the usual professional behavior that favors the aggregation of the professional figures working in the radiotherapy facility. Medical, technical, nursing, and administrative staff must operate in separate areas, arrange video meetings that ensure the safety required for prevention.

5- REDUCTION OF PATIENTS' ACCESS TO RADIOThERAPY FACILITIES:
To adopt hypo-fractionated regimens when possible; To postpone follow-up visits; To use palliative medical treatments at home, instead of radiotherapy, when deemed to be of similar efficacy; To delay non-urgent and deferrable radiotherapy treatments for patients with a better prognosis (e.g., adjuvant radiotherapy of breast cancer patients, radical radiotherapy of patients with low-intermediate risk prostate disease, others), and To postpone therapies for benign and functional diseases.
As soon as we become aware of the seriousness of the pandemic of coronavirus (COVID-19) and the speed of its spread among people, a decision was made to commit to and make the necessary precautions to prevent the pandemic of (COVID-19) and avoid infection within most hospitals and radiation oncology centers in Egypt.

At the National Cancer Institute (NCI), Cairo University, the necessary tools such as disinfectants, filters for nasal wipes, mouths and eyes, gloves for hands and disposable aprons for whole body clothes were provided to ensure prevention and the spread of the coronavirus inside the Institute were distributed to the workers, doctors, medical physicists, radiotherapists (RTT) and nurses, as well as infrared thermometers at the external gates of the Institute to measure the temperature of workers and patients and any people before entering the institute.

Within the radiation oncology and nuclear medicine department, the work has been divided as well as workers, doctors, medical physicists, radiotherapists and nurses, and have weekly schedule for working, so that only 30% of the workforce is present in the day and the rest of the workforce remains at home for two weeks. There is the relative cessation of receiving new patients and sterilization of the treatment and administrative departments of the Institute every day after the end of the work.

According to the World Health Organization (WHO), Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a novel, highly infectious strain of corona virus that has first detected in man in the later part of 2019. It was first described in Wuhan, China and causes severe respiratory symptoms referred to as corona virus disease or otherwise COVID-19. It has been the main topic in the news all over the world since the beginning of 2020. It has spread to almost every country in the world with WHO describing it as a global health pandemic. Ghana recorded its first case on 12th March, 2020 with a steady raise in the number of cases thereafter. The government of Ghana reacted by instituting a three-week lockdown in the two biggest cities in the country that also have radiotherapy facilities from the 30th of March 2020.

Cancer patients are felt to be at high risk for COVID-19 possibly due to the cancer, type of treatment that is being administered, or the fact that most cancer patients are elderly with co-morbid illness. Liang et al reported the initial impact on cancer patients in China, suggested the potential increase in risk of severe infection or death from COVID-19 relative to patients without cancer diagnosis. There is a two front battle ongoing for patients with a cancer diagnosis in the era of COVID-19 pandemic. This is delicate balance of providing adequate cancer care while mitigating the potential risk of SARS-CoV-2 infection. It is well known that a delay to cancer therapy or an interruption in cancer therapy has a deleterious impact of cancer control.

The Oncology Directorate of Komfo Anokye Teaching Hospital, which is the radiotherapy treatment center for the middle to Northern part of Ghana, has implemented measures to provide continuous care for new cancer patients and those currently receiving radiotherapy. The measures are as follows:

1. The Directorate, with assistance from Global Access to Cancer Care Foundation, USA, and Mayo Clinic – Rochester, USA, had an important statement on social media with signs reading “Cancer does not quit, we won’t either”. This is to assure the patients that we are not giving up and we will continue to work every working day.

2. Due to the lockdown and its associated restriction in movement, all patients on radiotherapy were given a special card which was signed by the attending Radiation Oncologist so that security officials will give them exclusive consideration to come for daily treatment.
3. The Medical Physics and other staffs of the Oncology Directorate have been divided into two groups running a weekly shift system. This is in the event that one group is exposed to the virus and are to be quarantined then the other group will be able to maintain radiation services.

4. The Directorate has closed all entry and exit with the exception of the main entry which also has two hand washing stations. It is mandatory for all staff and patients to wash their hands and apply alcohol hand rub before entering the department. All staff, patients and their relatives entering into the Directorate building, have mandatory screening in the form of temperature check by an infra-red thermometer.

5. Strict appointment scheduling system is being adhered to in order to keep the social distancing protocol.

6. Face mask, Hair cover and shoe covers are compulsory for all staff. Patients are however given only face masks if they do not come with their own. All staff are given PPE’s prior to work.

7. Hypo-fractionation is being used for most patients, especially for elderly patients and those with co-morbidities to decrease the total time in the Directorate.

8. Disposable sheets and disinfectants are used on the treatment couch to sanitize the room after each treatment.

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**Strategy in Cancer Management during COVID-19 Pandemic at Kenyatta National Hospital (Kenya)**

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Coronavirus disease 2019 (COVID-19) is a new infection caused by the novel coronavirus that has previously not been seen in humans. On March 11, the World Health Organization (WHO) declared COVID-19 a pandemic, after the disease spread to more than 100 countries and led to tens of thousands of cases within a few months.

In Kenya, the COVID-19 pandemic has not only affected people’s daily lives but has impacted negatively on cancer care services in terms of facilities and other resources. Kenyatta National Hospital was designated as the country’s national centre for management of COVID-19 pandemic victims with all initial cases directed to the hospital’s Infectious Disease Unit.

The Ministry of Health has been at the forefront in developing guidelines and protocols aimed at minimizing the emergence of new infections as well as caring for those infected which informs the guidelines and protocols that are adopted by the hospital.

Instituting these measures has negatively affected the cancer patients seeking care at Kenyatta National Hospital in terms of accessing care due to travel restrictions and reduced financial resources as the country gets to a partial lockdown. Together with this, the hospital is overstretched in terms of resources and space as they have to cater for the new requirements occasioned by the pandemic.

To this end the hospital has come up with some strategies to decongest the hospital while at the same time ensuring that care for cancer patients is not compromised. These include:

- Maintaining social distancing among patients and staff as per recommendation.
- Limiting number of relatives accompanying a patient at clinics and wards.
- Radiotherapy patients scheduled appropriately to avoid congestion on the waiting areas.
- New patients seen as they come.
- Chemotherapy scheduling to reduce congestion in the chemotherapy room.
- Innovative chemotherapy treatment protocols using evidence based medicine
- Ensuring hygiene (hand washing and hand sanitizing) and use of PPEs for both health care workers and patients
- Partnering with peripheral hospitals outside Nairobi in managing some non-urgent and follow up cases.
- Limiting face to face consultation where possible during this time.

At the national level, the Government of Kenya has put measures and directives which include limitation to movement (curfew) from 7 pm to 5 am and partially locking down the Nairobi Metropolis from other counties. This has in effect made it difficult for a lot of patients to come to Nairobi and hence significantly reduced the congestion usually seen at our Cancer Center.

Lastly, the public knowledge that COVID-19 victims may be housed at Kenyatta National Hospital has kept some patients and visitors away from the hospital in an attempt to avoid possible contact.
COVID-19: Radiation Therapy Services during National Lockdown at the Namibian Oncology Centre (Namibia)

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On 17 March 2020, the President declared a state of emergency and consequently a national lockdown was put in place from 27 March 2020 to 17 April 2020. Travel restrictions were imposed. Amongst others, healthcare workers were declared as essential workers.

The Namibian Oncology Centre is the only private radiation therapy service provider in the country and as such our services need to continue. Our staff was divided into groups with the minimum required (skeleton) staff being on site to provide services. Groups were rotated on a weekly basis to minimize any possible exposure to the Coronavirus. Where possible, remote access was set-up to allow staff to work from home - i.e. medical physicists can do plan checks, etc.

Patients are screened by means of a questionnaire upon arrival at reception. Additional hand sanitizers were placed in strategic locations throughout the facility and all high-traffic areas in the facility are cleaned regularly with concentrated cleaning solutions. No visitors are allowed in the chemotherapy department and visitors to the inpatient ward are restricted to one designated relative/person per patient for duration of the lockdown period.

At present, we have not had any instances of suspected or confirmed coronavirus patients treated in the facility. Should there be a positive COVID-19 patient in the ward, or in need of chemotherapy, he/she will be isolated in the high care unit and treated. Should a suspected or confirmed coronavirus patient be undergoing radiation therapy, they will be managed on a case-by-case basis. If it is essential that they continue with RT (e.g. an aggressive, fast growing cancer like head and neck cancers) then these patients will be treated at the end of the work day with staff in full personal protective gear (PPE), and the RT department thoroughly cleaned after the treatments. All staff have been provided with PPE and briefed on the proper use of PPE when treating COVID-19 cases.

The Impact of National Lockdown in South Africa on Medical Physics Services at Tygerberg Hospital

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COVID-19 was declared a national disaster in South Africa in mid-March and a national lockdown was put in place from 26 March – 16 April, which was then extended to 30 April. As of 20 April, there are 3300 confirmed cases and 58 deaths.

Health workers are classified as “essential” and all employers of essential workers had to generate permits for these workers, to be allowed past any road blocks. Our medical physics division consists of six medical physicists, two radiographers, one auxiliary service officer and two medical physics interns.

It was decided to allow a “work-from-home” strategy in the medical physics division where possible, which was in line with notices issued by head office; after all, staff is just a phone call or an email away. Deliverables during the “work-from-home” period could e.g. include the writing and submission of research papers, remote treatment plan checking or compiling the portfolios of evidence in the case of medical physics interns.

One staff member had put in leave for the lockdown period. A roster was introduced where medical physics staff was staggered, so that not all staff members were on site all the time, but that at least two medical physicists were in the division on any given day, so that all essential services could be covered and to comply with regulatory requirements. QA/QC schedules were also adjusted to take the skeleton staffing into account. Mould room requests are dealt with by the RTTs or the medical physicists as far as possible. Personnel radiation exposure monitoring continues, the responsible person comes in when required. Patient specific QA or linear accelerator QC can be done after hours. The administration of Lu-177, also proceeded as planned, albeit with some logistical issues.
Radiation Oncology services continue normally, to date no Covid-19 positive patients have been treated. However, we have started screening all patients at the front door with a questionnaire asking about travel history and Covid-19 symptoms (fever, dry cough, sore throat or similar) or sick family members. We have also introduced patient visitation restrictions and are only allowing at most one relative per patient in the building. We have started hypo-fractionation regimes already to reduce the number of times patients have to come to the hospital during the lockdown. One of our linear accelerators will become a dedicated “Corona-Linac” should the need arise, and provisions were made in the ward as well.

At the time of writing we are in the national lockdown extension period and this system seems to be working for now, but will not be sustainable.

Medical Physics at the Cancer Diseases Hospital (Zambia) in COVID-19 Pandemic: Integration to determine the area under the graph

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For the Zambian medical physics fraternity, this has been the first experience in dealing with having to be health risk averse. A number of measures had to be put in place to yield the minimal infection risk to staff and patients. Zambia recorded its first two cases of COVID-19 on March 18, 2020. The Ministry of Health has issued two statutory instruments to guide into operations during this pandemic at national level. A public health approach has been instituted from the top, down to the various facilities under the Ministry of Health. All hospitals have remained essentially functional. Surveillance, risk identification, developing and evaluating interventions and implementing strategies was the general approach at hospital level. The Cancer Diseases Hospital is not spared from this and as such a CDH COVID-19 Task Force committee was set up. Radiotherapy services have continued with adjustments to workflows during this pandemic. Among the measures undertaken as a hospital include:

- Establishment of a hospital level COVID-19 taskforce;
- Special training of staff on coronavirus and infection prevention practices;
- Patient triage for COVID-19 so as to identify possible cases and isolate for further investigation;
- Patient scheduling into daily time slots to avoid overcrowding;
- Special external beam radiation therapy and brachytherapy protocols to reduce number of patients attending radiotherapy and brachytherapy sessions;
- Effecting virtual meetings such as radiotherapy and brachytherapy planning review and other clinical multi-disciplinary meetings.

To rise to the challenge, our five (5) medical physicists as are part of the radiation oncology team are still providing a service while bearing in mind the universal recommendations for minimizing the transmission of the coronavirus. The use of personal protective equipment, hand hygiene and social distancing are the premise of our functioning during this unprecedented time. Medical physics tasks have been categorized into patient related and equipment related issues. Drawing from Whitaker et al, certain essential clinical tasks have continued to happen. These are patient specific calculations, radiotherapy and brachytherapy treatment planning, daily radiotherapy and brachytherapy equipment calibration as well as quality assurance checks and radiation safety compliance checks. Teaching and research activities have continued as a task that can be done at individual level as required. The weekly work schedule has remained without change and allows for two individuals to be actively in the clinical area while the other three will be performing equipment related tasks which are once off usually in the morning and there after those individuals are permitted to stay away from the activities involving direct contact with patients and other staff. Operational guidelines during this COVID-19 pandemic guided our daily activities at the hospital. The introduction of hyper-fractionation schedules for radiotherapy and brachytherapy protocols has allowed for fewer patients attending treatment sessions throughout the day.
COVID-19: Situation at the Radiotherapy Centre of National Hospital Abuja, NIGERIA

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The index case of COVID-19 in Nigeria was reported on 27th February 2020 and the ‘curve’ has since been growing exponentially as the number of tests were made available on a daily basis prompting the Federal Government of Nigeria to issue a ‘lockdown’ order on March 30 for an initial period of two weeks. This order has since been extended twice after the expiration of the initial one.

Due to the infectious characteristics of COVID-19 as reported, the National Hospital Abuja (NHA) management in a precautionary and proactive initiative, setup a Taskforce team which produced the guidelines and protocols for the care and treatment of potentially positive cases within the sphere of her jurisdiction. This comprises of representatives from all the clinical departments. The Hospital went further to dedicate a whole building as ‘isolation centre’ for this purpose.

COVID-19 lockdown order has equally affected the delivery of Radiotherapy to cancer patients. The restriction on movement made it difficult for patients living far away from the centre to access treatment. The ‘near abolition’ of new cases except emergencies has drastically placed a reduction on the number of patients on treatment.

Wearing nose masks were made compulsory for everybody before entering the centre. Automated wall-mounted hand sanitizers were placed at the entrance of the centre and at the entrance of the bunker. This is accessible by both staffs and patients. Equally sanitizers were distributed in plastic jars and made available to staffs. It is used before and after touching equipment such as the mouse and keyboards of the treatment planning system.

Personal Protective Equipment (PPEs) were also issued to the Radiotherapists (RTTs), this is worn at all times when handling patients both on the CT Simulator and the LINACs as part of maintaining a ‘high index of suspicion’ although so far no patient with Covid-19 positivity have been treated on our two Linacs.

To avoid overcrowding, staff rosters were adjusted. Staffs were divided into two teams and they resume for duty only on alternate weeks. The department placed an embargo to planning new patients until further notice, allowing only palliatives and emergencies.

Social distancing was equally observed among staffs and patients. Pleasantries that were usually exchanged by handshakes have been reduced to elbow bumps and leg shakes. The chairs in the reception/waiting room were also rearranged to place patients distant from each other.

With the daily increase in the number of confirmed cases, the recovery rate and the race for a cure, let’s stay safe and practice good hygiene.

COVID-19: Experiences and Measures during Radiation Medicine Services at the Sweden Ghana Medical Centre (Ghana)

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Corresponding Email: George.acquah@sgmcltd.com

Ghana had its first two confirmed cases of COVID-19 virus on 12 March 2020 in Accra. Sweden Ghana Medical Centre (SGMC) took swift action: within a week, we had set up a COVID-19 Rapid Response Team that was meeting daily to decide how to ensure we kept staff, patients, our families and the business safe. Our mission remained clear – as long as we are committed to taking away the burden of cancer, we needed to keep seeing and treating both old and new patients. We also had to ensure that our staff was fully informed. There were a number of staff engagements, education by public health experts and new protocols developed for staff-patient interactions. Staff were also placed onto a 14-day rotation system, with those at home having to practice self-quarantine procedures.
On 16 March, we introduced the “four lines of safety’ concept. This involved new admission procedures for patient appointments or treatments using a four (4) stage of entry approach, namely; (i) placing strict emphasis on patient enquires, (ii) control over main gate arrivals, (iii) a clinic screening entry point and (iv) revised reception desk admission processes. All new patients have to book appointments in advance and are scheduled throughout the day to limit time spent at the clinic and congestion at reception. An initial assessment is done by our trained security staff at the main gate using handheld temperature readers before staff, patients or guests enter the clinic parking lot and entry area. We have a running tap washstand with disinfecting hand wash set up at the clinic entry where all are to wash their hands before approaching the clinical screening desk. Our screening is in-depth, requiring travel histories, recording symptoms and triaging visitors for their level of risk. High risk visitors are immediately moved aside to a quarantine area, where they are attended to by staff in full PPE gear. Masks are handed out to those who are granted permission to enter. All people are required to sanitize their hands again before admission into the reception area inside the clinic. Once inside the clinic, the receptionist seats patients and visitors at a specific area (observing social distancing) while waiting to see a doctor.

On March 30 2020, the President imposed a partial lockdown on the Greater Accra and Greater Kumasi Metropolitan Areas due to the increased numbers of confirmed coronavirus cases. Even before the lockdown in Accra, SGMC on 25 March 2020 put in place a staff quarantine shift strategy to slow down the spread of the virus (self-isolation) whiles we keep treating our patients. A 14-day shift/quarantine rotation over 4 weeks (30 March – 27 April) was implemented where essential staff were divided into 2 groups whiles all other staff, interns and volunteers were made to stay at home. The oncology team is adopting to new ways of working to minimize risk to patients and staff at the same time as optimizing cancer treatment and care. It is mandatory for all staff and patients to be in protective mask at all times whiles at the center. In radiotherapy, using fewer fractions with higher dose per fraction is being considered where possible. Consultations and communication with other health professionals to online or phone rather than face-to-face as much as possible.

At the Medical Physics department, the intern medical physicists are to stay home to complete research manuscripts and not to be onsite. One Medical Physicist is onsite for 14 days to perform all treatment planning, QAs/QCs, radiation protection issues and brachytherapy whiles the other work remotely to check approved plans for treatment. All equipment QAs are done after the last patient for the day is treated and the surface of treatment couch well cleaned and disinfected. The surfaces of dosimetry equipment (phantoms and devices) are sanitized using vendor’s approved procedures before bringing them into contact with items in the clinical environment. During brachytherapy procedures, all staff are mandated to be in full Personal Protective Equipment (PPEs). The frequency of personal radiation dose monitoring has been changed from monthly to 3 months to limit the interactions with service providers and thermoluminescent dosimeter (TLD) exchange among staff.

As at 26 April 2020, the total confirmed cases have increased to one thousand five hundred and fifty (1550) with eleven (11) deaths. SGMC has extended its 2 weeks’ staff rotation system until the end of May 2020.
Services in Radiation Medicine during the COVID-19 Lockdown: Inkosi Albert Luthuli Central Hospital (South Africa)

Graeme L. Lazarus
Email: graemelaz@ialch.co.za

The state president of South Africa announced a lockdown on 26 March 2020, whereby only essential services were to be delivered. All other members of the population were instructed to stay in their homes and if the need to go out arose, strict guidelines were meant to be followed.

It was decided by the department of Radiation Oncology that all cancer patients continue being treated during this time. The department implemented measures to reduce the number of patient visits to the institution, by mainly hypo-fractionating wherever possible. Patients with early stage cancers had their treatments deferred for 5 weeks whilst the low-risk prostate patients were prescribed hormone therapy for an extended period of time. The number of IMRT and VMAT plans were reduced resulting in a greater number of patients being treated with 3D-CRT. The number of palliative patients being treated increased during this time.

Radiotherapists and Oncology nurses were split into 2 groups with each group alternating their times at the institution. This was done in case a staff member from one group were to test positive for COVID-19 - the second group would be available to continue patient treatments whilst the first spent time in isolation. The staff members at home at any given time were placed on standby and had to come in to work whenever their services were needed.

Since there was a reduction in IMRT and VMAT cases, the amount of time needed for patient-specific QA was reduced drastically. The Medical Physicists therefore agreed that only one physicist would be on duty for each week of the lockdown, with the other physicists on standby during that time.

The systems in place have worked exceptionally well for the 4 weeks of lockdown. We are also happy to report that no staff member has tested positive for COVID-19 and we pray that it stays that way.

God bless Africa – and all its people.

Clinical Practice and Preparedness of Medical Physicists at Korle-Bu Teaching Hospital (Ghana) during the COVID-19 Pandemic

Samuel N.A. Tagoe, Michael Nyamadi, Evans Sasu, Francis Doughan and Anthony Ashun
Email: samnitagoe@yahoo.co.uk

The sudden occurrence of the coronavirus pandemic has devastated the world, its institutions and livelihoods. The high numbers of COVID-19 cases and related deaths recorded globally over the past four months has called for urgent programmes to address the situation. In relation to this, the Ghana Health Sector Medium Term Development Plan 2010-2013 prioritized three actions to address situations, viz (i) improve community based surveillance, (ii) improve epidemic response and (iii) improve monitoring of 'control and elimination' measures and activities.

At the onset when Ghana started to record cases of COVID-19 and the government had to institute measures to curtail the spread of the pandemic, patient throughput for the two external beam radiation therapy machines at Korle-Bu Teaching Hospital was close to 100 patients per day. To encourage social distancing at the workplace, a shift system was implemented for all category of staff such that in a day only two Medical Physicists were at post. An appointment system has been very helpful in limiting the amount of patients visiting the facility within a certain period. Portion of the centre’s car parking lot has been designated as holding bay for patients. Patients with cars are advised to stay in their cars until they had been called for treatment.
Only the main entrance to the centre is kept opened and a desk for staff assigned as frontline workers (departmental COVID-19 response team) wearing appropriate personal protective equipment (PPE) is positioned there. The frontline workers before screening patients, caregivers and staff entering the facility, ensure that everybody is wearing a face mask and goes through the hand washing rituals. Restriction of one caregiver per patient has been put in place. List of patients who are required to visit the facility on a particular day as well as information for patients are given to the frontline workers to facilitate their work. Opening and closing of the entrance door are done by the frontline workers who ensured that the door handles were routinely sanitized.

Admission of new patients, chemotherapy and brachytherapy were temporarily suspended. Within a couple of weeks, those suspended services were made to resume after management of the facility had understood patient flow dynamics relative to service requirements. New patients whose treatment could be delayed, based on assessment, have their treatments deferred and patients undergoing chemotherapy are made to take medications to prevent possible onset of neutropenia, which would increase a patient’s vulnerability to COVID-19.

For brachytherapy, the Medical Physicist involved with treatment planning and treatment delivery are provided with appropriate PPEs with the working area cleaned and sanitized before and after a procedure. The limited number of Medical Physicists does not compromise on our roles: implementation of radiation protection measures, treatment planning, quality assurance/quality control of equipment and clinical training of interns, as we have to work for longer hours with our lead Medical Physicist placed on standby to assist any shift if needed. Interns are exempted from coming to work.

In all our practices it has been ensured that measures are put in place to control the spread of the pandemic at the work place, such as cleaning and disinfecting of equipment before and after use. Treatment planning are adapted to suite the current prevailing conditions; use of hypo-fractionated treatment schemes are encouraged and intensity modulated radiation therapy (IMRT) has been introduced to facilitate radiation dose escalation and provide normal tissue sparing. Remote access using social media tools such as WhatsApp is sometimes used to transmit treatment plan dose indices to clinicians to facilitate assessment of treatment plans and their subsequent approval. Pilot procedures to ensure the effective implementation of the IMRT were done after working hours and involved most of our physicists to enable us share ideas. Though the pilot was done with all physicists involvement, the team was split into two smaller groups; one group focused on the treatment planning process and the other focused on treatment delivery and verification processes.

IAEA Organized Webinars in the Wake of the COVID-19 Pandemic

The International Atomic Energy Agency (IAEA), in the wake of the COVID-19 pandemic has organized series of webinars focusing on best practices in healthcare delivery. The webinars are available on the IAEA website through the link:

https://www.iaea.org/topics/health/infectious-diseases/covid-19/webinars

- COVID-19 Preparedness for Radiotherapy Departments (in Arabic), 27 April 2020
- COVID-19 Preparedness for Radiotherapy Departments (in French), 24 April 2020
- COVID-19 Pandemic: Supply of Medical Radioisotopes and Radiopharmaceuticals, 23 April 2020
- COVID-19 and Health Workers: Radiation Protection, 22 April 2020
- COVID-19 Pandemic: Guidance for Nuclear Medicine Departments, 16 April 2020
- AFrica Radiation Oncology NETwork (AFRONET). 14 April 2020
- COVID-19 and Chest Computed Tomography (CT): Protocol and Dose Optimization, 09 April 2020
- COVID-19 Preparedness for Radiotherapy Departments - Towards Consensus on Best Practices, 03 April 2020
- Preparación de los Servicios de Radioterapia ante el COVID-19 - Buscando Consenso en las Mejores Prácticas, 03 April 2020
- Coronavirus disease (COVID-19) Pandemic - Challenges for the Nuclear Medicine Departments, 25 March 2020

Source: IAEA (May, 2020)
Background:
The Federation of African Medical Physics Organizations (FAMPO) is the regional federation of the International Organization for Medical Physics (IOMP) in Africa. The Federation promotes the application of physics in medicine within the African region. In a region of 1.3 billion population, it has been FAMPO’s cherished dream to drastically increase the number of Medical Physics workforce, in consonance with the ambitions of the IOMP. In line with this, FAMPO has collaborated with other agencies like the International Atomic Energy Agency (IAEA) and the IOMP towards strengthening education and training of Medical Physicists, improving Medical Physics practices and achieving the needed recognition for the profession within the region.

Objectives:
The major goal of the conference is to bring together Medical Physicists in clinical practice, academia, research and industry, and provide a platform for exchange and sharing of scientific information and experiences in all aspects of the profession.

Topics:
The conference will cover recent developments in the field of Medical Physics applications. FAMPO welcomes both academic and practice based contributions and topics in diagnostic radiology, nuclear medicine and radiotherapy:
- Dosimetry
- Quality control and quality assurance
- Audits
- Image quality and dose optimization
- Image registration and processing
- Diagnostic reference levels
- Education and training
- Artificial intelligence
- Radiation protection
- Etc.

Audience:
This conference will serve as an opportunity for Medical Physicists and scientists in medical institutions, research centres, universities and standards laboratories to meet for discussions covering the entire Medical Physics spectrum. FAMPO welcomes and encourages the participation of women and early career professionals.

Programme Structure:
The conference will consist of sessions including the opening ceremony, plenary sessions, series of topical sessions with oral and poster presentations, a session for poster highlights, exhibition and the FAMPO General Assembly. Conference abstracts will be published in the African Journal of Medical Physics (AJMP).

Sale of Exhibition Booths & Logistics Arrangements:
Altitude Événementiel
Contact Person: Ms Bouchra AMARI
- Email: altitude@altitudevoyages.ma
- Tel: +212 537778405 / 07
- Mob: +212 661203585
- Whatsapp: +212 610590381
- Address: 43, Rue Oum Rabia appt. N°1 Agdal Rabat – 10106 Maroc

Important Dates:
- 01 March 2020 - 1st Conference Announcement
- 08 March 2020 - Opening of Registration
- 08 March 2020 - Call for Abstract Submission
- 01 June 2020 - 2nd Conference Announcement
- 08 July 2020 - Abstract Submission Deadline
- 27 September 2020 - Notification of Accepted Abstracts

Conference website:
www.conference.fampo-africa.org

Contacts:
Email: info@conference.fampo-africa.org
Phone: +212661400321 / +233244945805
COVID-19 Information Resource (IOMP Website)

IOMP encourages its members to see the following resources for up-to-date information:


https://www.ecdc.europa.eu/en

https://www.who.int/emergencies/diseases/novel-coronavirus-2019

IOMP offers free webinars at the ‘IOMP School’

Dear Colleagues,

IOMP invites you to attend a series of free webinars organized by the ‘IOMP School’ on the occasion of the International Medical Physics Week (IMPW) [https://www.iomp.org/IMPW/]

Dates: May 11 – May 15, 2020
Time: 14:00-15:00 Central European Summer Time (CEST)

Program
Date: Monday, May 11
Message from the IOMP President: Madan Rehani
Presentation title: CT scan parameters and radiation dose
Speaker: Mahadevappa Mahesh
Moderator: John Damilakis

Date: Tuesday, May 12
Presentation title: Monte Carlo simulation of dosimetry problems in proton therapy
Speaker: Lorenzo Brualla
Moderator: E. Bezak

Date: Wednesday, May 13
Presentation title: A comprehensive approach to the management of radiotherapy patients with implanted cardiac devices
Speaker: D. Mihailidis
Moderator: A. Chougule

Date: Thursday, May 14
Presentation title: Smaller! Faster! More! Advanced X-Ray Breast Imaging and its Role Beyond Cancer Diagnosis
Speaker: I. Sechopoulos
Moderator: M. Stoeva

Date: Friday, May 15
Presentation title: Radionuclide therapy patients in public: The original social distancing
Speaker: N. Forwood
Moderator: I. Duhaini

We encourage you to register for the above complimentary webinars at [https://www.iomp.org/iomp-school-on-impw-2020-program/]

All webinars will start at 12:00 pm GMT

I am looking forward to your participation.

Sincerely,

Prof. John Damilakis
IMPW Webinars organizer
IOMP Vice President
 THROUGH IMPW, we can enhance and highlight the importance of medical physics in patient care.

We strive to grow and empower the next generation of medical physics leaders on all continents. In the ever-evolving world we embrace new challenges, such as artificial intelligence or nanoscience and apply them to healthcare.

By contributing to science, technology, education and patient care, medical physicists are a critical component in the provision of imaging and radiation therapy services.

Medical physicists, with their skills and competences, knowledge and science, imagination and creativity, are dedicated to improve the quality of patients’ diagnoses and treatment in a world of constant transformation, innovation and technological revolution.

Thanks to all Medical Physicists, health professionals in a World that needs healthcare and safety!

Celebrating the IMPW gives great recognition to all Medical Physicists that they are professionally taking good care of many patients around the World.

Through scientific and analytical tools to the diagnosis and therapy of people in a great range of environments. We do this across borders and cultures.

IMPW is the opportunity and platform to showcase the contribution of medical physics to healthcare. Medical Physicists are contributing immensely in the diagnosis and treatment, in addition to technology upgrades. They deserve more recognition.

Achieving excellence in healthcare through medical physics and technology.

Watch for IOMP Webinars announcement during IMPW at www.iomp.org/IMPW
International Day of Medical Physics (IDMP) 2020 Award

The IOMP is pleased to seek nominations for the IDMP Award. This award recognises 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 2020 IDMP theme is “Medical Physicist as a Health Professional”

The 2020 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, 2020. 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 masters 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.
• Nominee shall not be a current member of the IOMP Awards & Honors Committee or the IOMP ExCom.

Nominating Procedure
• The award will be widely advertised on the IOMP mailing list and website.
• The President of each IOMP Regional Organisation 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. The IOMP award form (available on the IOMP website) as filled out by the candidate. (https://www.iomp.org/call-for-nominations/)
3. The IOMP award form (available on the IOMP website) as filled out by the candidate. (https://www.iomp.org/call-for-nominations/)

Nominations should be sent to Dr. Simone K. Renha, Chair of the IOMP Awards and Honours Committee (AHC) at simone@cnen.gov.br by September 30, 2020. Submissions should be in the form of: MS Word or PDF document. Nominations will be acknowledged by e-mail. If you do not receive an acknowledgement within 72 hours please contact Dr. Simone and the Secretary General of the IOMP at sg.iomp@gmail.com. One medical physicist from the three nominations per region will be selected by the AHC to receive the award. The winners will be announced on November 5, 2020.

IUPAP Young Scientist Award in Medical Physics 2020

The IOMP is pleased to announce the IUPAP Young Scientist Award 2020. This award was established and funded by the International Union of Pure and Applied Physics (IUPAP) and awarded by the International Organization for Medical Physics (IOMP) as the IUPAP affiliated International Commission for Medical Physics. The award will include a cash prize of 1000 Euro, an IUPAP medal and the IOMP certificate. In addition, a short biography of the Awardee will be published in Medical Physics World.

Criteria for selection:
• The recipient of the award should be under 40 years of age as of 31 December 2019* and have completed 5 years of research or development in medical physics.
• The recipient should have performed original and/or applied work of outstanding scientific quality in medical physics. The committee may consider the achievements in the context of opportunity.
• The award may only be received one time by any individual.
• Nominee shall not be a current member of the IOMP Awards & Honors Committee or the IOMP ExCom.

*Under exceptional circumstances the age limit can be extended. Please contact the chair of the AHC if you would like to discuss this.

Nominating Procedure
• The award will be advertised by the International Organization for Medical Physics (IOMP) on the organization’s website: http://www.iomp.org
• Self-nomination will not be considered.
• Nominations can be made to the Chair of the IOMP Awards and Honours Committee (AHC) by IOMP National Member Organizations (NMO) or individuals through their NMO. Where this is not possible applications should be made directly to the Chair of the AHC. They should include the following:

1. A letter of not more than 1,000 words evaluating nominee’s achievements and identifying the specific work to be recognized.
2. One letter of support (up to a maximum of three pages) from someone not at the nominee’s institution and not a mentor or significant collaborator.
3. The IOMP award form (available on IOMP website) filled out by the candidate (https://www.iomp.org/call-for-nominations/).

The closing date for nominations is noon (EST) on 22 June 2020. Nominations should be sent to Dr Simone Kodulovich Renha at simone@cnen.gov.br with a copy to the secretary of the IOMP at sg.iomp@gmail.com. Submissions should be in the form of: MS Word or PDF document. Nominations will be acknowledged by e-mail. If you do not receive an acknowledgement within 72 hours please contact Dr Simone and the secretary of the IOMP. The winner will be announced on 20 July 2020.

The Award does not include any travel or conference expenses for the recipient.
Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)

spike glycoprotein (S)
membrane protein (M)
nucleoprotein (N)
genomic RNA
envelope small membrane protein (E)
hemagglutinin-esterase (HE)

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