



Cover Story:

COVID-19 Superheroes

368 **Paulo Moll:** Fighting the Pandemic in Brazil - Experience of Largest Hospital Network

374 **Adaora Okoli:** Tragedy of COVID-19

376 **Sabine Torgler:** Nurses Are Not Soldiers

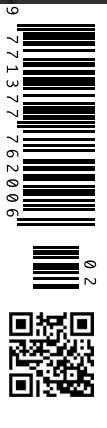
384 **Prof. Jonathan McNulty:** Radiographers on the Frontline

386 **Valérie Martin:** "Not in My Care Home"

392 **Elikem Tamaklo:** Burning Platform for Change: COVID-19 Experience in Ghana

396 **Lloyd Vincent:** Traversing the Unknown Frontlines - COVID-19 from a Resource Limited East African Setting

427 **Alberto Porciani:** Telemedicine in Time of COVID-19



Radiographers on the Frontline

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During the COVID-19 pandemic, radiographers continue to provide high quality diagnostic imaging services and deliver cancer treatments, while ensuring the safety of the patients.

Key Points

- Radiographers working in medical imaging, nuclear medicine, and radiotherapy have continued to provide essential services during the pandemic.
- COVID-19 has presented many challenges for radiographers who have responded well to overcome these.
- Education providers and student radiographers have also been impacted but have also responded rapidly to this crisis.
- Continued leadership is required within the profession for the months and years ahead.

The current global COVID-19 coronavirus pandemic has impacted all of us and will continue to do so for some time. Radiographers have continued to provide high quality diagnostic imaging services and to deliver cancer treatments throughout the pandemic. In doing this, they continue to ensure the safety of their patients with additional COVID-related considerations and precautions. Radiographers work across three recognised branches of the profession, namely, medical imaging, nuclear medicine, and radiotherapy, usually having completed a bachelor's degree which is often followed by further postgraduate education and training. The European Federation of Radiographer Societies (EFRS) represents over 100,000 radiographers and over 8,000 radiography students, across 36 countries, through 45 national societies along with 66 universities within our Educational Wing. This representation covers radiographers working in medical imaging, nuclear medicine, and radiotherapy.

Radiographers at the Frontline

Radiographers have faced significant challenges in 2020 but have, together with radiologists, radiation oncologists, nuclear medicine physicians, medical physicists, nursing, and many support staff, shown great leadership, professionalism, and resilience, while always having a caring and compassionate focus on their patients. I have heard stories from many countries across Europe, and beyond, of national radiographer societies, educational institutions, clinical departments, and individual radiographers showing

a strong, united, and supportive approach to dealing with these once in a lifetime circumstances. Radiographers are playing a hugely important role currently and are often going above and beyond in playing their part in this battle against the pandemic. While hard decisions were made to close workplaces and educational institutions; to cancel meetings, events, and conferences; even tougher decisions are being made by front-line healthcare professionals in the management of this crisis.

While the figures for cancelled/postponed examinations and treatments have been cited at over 80% in many centres and countries, essential activities have continued with new approaches to the management of workflow and teams rapidly implemented. As has been well documented at this stage, both chest radiography, conventional chest x-rays, and computed tomography (CT) have had a significant role to play in the management of patients with COVID-19. This has resulted in dramatic increases in the amount of mobile chest examinations being performed by radiographers, often under quite challenging circumstances, and with enhanced infection prevention and control measures. There has been much debate on the availability of appropriate personal protective equipment (PPE). Approaches taken in some environments have been unfortunate when really it should have been a non-debate. Radiographers are frontline healthcare personnel who perform chest radiography, CT, ultrasound, and other diagnostic examinations, together with delivering radiotherapy to all patients. Most of these procedures put radiographers in direct contact with

suspected or confirmed COVID-19 patients for a certain period of time. Thus, of course, radiographers must have access to PPE and they must have access to appropriate PPE so that no frontline staff need to consider putting themselves at unnecessary additional risk on the basis that PPE is not available to them.

The reduction in examinations across many areas, together with the dramatic increases in mobile chest examinations, has resulted in many radiographers being redeployed. For example, in some regions, radiographers working in breast screening services which have been temporarily suspended, have been deployed to support colleagues working in general radiography, in emergency departments, in intensive care units, in radiology departments, and in primary care settings. Such additional manpower has been essential to allow services to continue as many departments were hit by the impact of radiographers, and other personnel, having to self-isolate due to symptoms or confirmed COVID-19. The additional time and effort required for effective infection prevention and control measures including the donning and doffing of PPE and effective cleaning regimes following all examinations has also increased the workload.

Educational Challenges

Radiography education has not escaped COVID-19. Clinical skills training for students in diagnostic imaging, radiotherapy and nuclear medicine has been severely impacted over the past number of months, with the suspension of many clinical placement opportunities. This disruption is expected to continue due to the continuing impact COVID-19 is having on clinical departments together with social distancing and other measures. With this in mind, the EFRS recently partnered with the University of Liverpool, the UK Society of Radiographers, the Australian Society of Medical Imaging and Radiation Therapy, and the Canadian Association of Medical Radiation Technologists, on a global virtual conference focused on the potential role of simulation resources, techniques and placements as temporary solutions to this problem. Over 900 delegates joined this "Simulation-Based Education in Radiography/Medical Radiation Sciences: a response to COVID-19" conference and heard from over 35 global simulation experts and researchers who discussed how simulation could provide capacity for the duration of the pandemic restrictions. In general, educational institutions and radiography educators have responded well and played an important role during the current pandemic. They have: adapted rapidly to remote teaching and assessment, as have student radiographers, while all the time trying to maintain the quality of the learning experience; embedded new technologies in their teaching and assessment practice; facilitated on time, and sometimes early, completion of final year students who were urgently needed in the clinical workforce; made

themselves available to support frontline clinical services; led rapid research projects focused on COVID-19; and, have supported rapid training of frontline personnel.

One such initiative led by radiography educators was the vision of Professor Peter Hogg (University of Salford/UK) who, together with Ken Holmes (University of Cumbria, UK), partnered with the EFRS and the International Society of Radiographers and Radiological Technologists (ISRRT) on a project to develop e-learning resources on COVID-19 for medical imaging radiographers across the world that are caring for our patients as frontline staff. An international group of over 50 individuals from across the world collaborated to create the teaching and support materials. In less than three weeks, the resources went live and in the first week alone, over 4,000 radiographers from over 100 countries had engaged with these resources (Hogg et al. 2020). Separately, many of the national radiographer societies who are members of the EFRS, have produced their own guidance documents related to COVID-19 on PPE, self-care, practice guidelines on performing examinations (chest x-rays, CT scans, MRIs, ultrasounds) on suspected and confirmed COVID-19 cases.

There was also a special session at ECR 2020 on "COVID-19: the radiographers' perspective," which touched on the roles and work of radiographers during this pandemic (connect.myesr.org/course/covid-19-the-radiographers-perspective/).

Conclusion

For those of you in leadership positions, now is your time to lead our profession through these unprecedented challenges which, for many of us, will no doubt get worse before things get better. The EFRS thanks all radiographers, medical imaging, nuclear medicine, and radiotherapy, for your efforts, your service, and the pride you are showing in our profession at this time; you are all COVID-19 superheroes! Remember the motto of the EFRS: "Together everything is possible; be involved, make the difference!" ■

REFERENCES

Hogg P, Holmes K, McNulty J, Newman D, Keene D, Beardmore C (2020) Covid-19: Free resources to support radiographers. Radiography. doi.org/10.1016/j.radi.2020.05.002