

Global nuclear medicine community shares COVID-19 strategies and experiences

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In an effort to provide safer working environments for nuclear medicine professionals and their patients, clinics across five continents have shared their approaches to containing the spread of COVID-19 in a

series of editorials, published ahead of print in *The Journal of Nuclear Medicine*. This compilation of strategies, experiences and precautions is intended to support nuclear medicine clinics as they make decisions regarding patient care.

Clinicians from Africa, Asia, Australia, Europe and North America provided summaries of the steps their individual hospitals and clinics have taken to combat the COVID-19 pandemic. According to editorial author, Ken Herrmann, MD, MBA, chair of nuclear medicine at the University of Duisburg-Essen, Essen, Germany, the most common steps taken by clinics have been to triage patients upon arrival, reduce elective nuclear medicine studies, improve hygiene practices and establish rotations of medical personnel to create back-up teams should a staff member become infected.

For patients undergoing essential nuclear medicine procedures, incidental findings can suggest signs of COVID-19, according to editorial author Domenico Albano, MD, nuclear medicine physician at the University of Brescia and Spedali Civili Brescia in Italy. Reporting on local experience in a region with high COVID-19 prevalence, Albano and colleagues found six out of 65 asymptomatic PET/CT patients and one of 12 radioiodine patients showed signs of interstitial pneumonia. Five of the seven patients were confirmed to have COVID-19; the remaining two did not receive immediate testing but underwent quarantine and careful monitoring.

"Our observations show that it is mandatory for healthcare personnel to employ hygienic measures, minimize patient contact and optimize distance, and use protective equipment for general clinical services in regions with high COVID prevalence," said Albano. "It is also important to consider potential COVID-19 related findings during reading, and to report such findings to the patient and his referring physicians immediately, for appropriate action."

Of particular interest to the nuclear medicine community is the safety of performing ventilation/perfusion studies. "Previous literature has documented a small degree of leakage of the aerosol from the closed delivery system into the room with the potential for expired air and aerosolized secretions to contaminate personnel within the imaging suite," noted Lionel S. Zuckier, MD, MBA, FRCPC, editorial author and chief of the division of nuclear medicine at Montefiore Medical Center and Albert Einstein College of Medicine in Bronx, New York. "In addition, patients frequently cough following inhalation of the radiopharmaceutical, which may further expose nuclear medicine workers to aerosolized secretions."

Given these circumstances, ventilation/perfusion studies have the potential to result in aerosolized secretions that can contribute to the spread of COVID-19. Zuckier and colleagues recommend eliminating the ventilation portion from lung perfusion/ventilation scans to reduce the risk of spreading COVID-19.

Additional steps taken by clinics to combat the spread of COVID-19 include limiting or cancelling research studies and scheduling symptomatic [patients](#) needing essential studies for the end of the day (allowing for thorough cleaning after the study). Some clinics have conducted refresher courses in infection control management and basic emergency management, while others have stressed the need for kindness and consideration in this unprecedented time.

Concerns were also voiced by nuclear medicine clinics around the world regarding potential nuclear reactor production restrictions and international travel limitations. Strategies to tackle these issues are being addressed by nuclear medicine and molecular imaging society leadership worldwide.

"These are difficult times; none of us has ever experienced anything like

the current pandemic," remarked Johannes Czernin, MD, JNM editor-in-chief and chief of the Ahmanson Translation Imaging Division at the David Geffen School of Medicine at the University of California, Los Angeles in California. "We thank the hundreds of thousands of health care workers worldwide who have not hesitated for a moment to come in and do their job at times of great personal risk. These are selfless people who help and support each other; cover for each other; volunteer to step in and up as needed."

More information: Domenico Albano et al, INCIDENTAL FINDINGS SUGGESTIVE OF COVID-19 IN ASYMPTOMATIC PATIENTS UNDERGOING NUCLEAR MEDICINE PROCEDURES IN A HIGH PREVALENCE REGION, *Journal of Nuclear Medicine* (2020). [DOI: 10.2967/jnumed.120.246256](https://doi.org/10.2967/jnumed.120.246256)

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