From One Technologist to Another—COVID-19 Questions Answered

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The COVID-19 crisis has forced Nuclear Medicine and Molecular Imaging Departments to cancel appointments, change procedures and protocols, and adapt to significant changes rapidly. Nuclear Medicine Technologists are often on the frontlines, working and communicating directly with their patients. To provide advice and guidance to the community, 8 Nuclear Medicine Technologists from around the country were interviewed—a summary of their responses is documented below.

What protocols are Nuclear Medicine Technologists following regarding staffing the department during this crisis?

Nuclear Medicine procedures have decreased exponentially during the COVID-19 crisis. Departments across the country are taking active measures to ensure the health and safety of their patients and nuclear medicine professionals working in the department. Staffing protocols and schedules are being revised to fit the needs and safety requirements of departments. Currently, in many institutions patients and staff are being screened on entry into the department. If a patient is deemed a COVID-19–positive patient, the Nuclear Medicine Physician is immediately contacted, and the patient is deemed a COVID-19–positive patient, the Nuclear Medicine Technologists practice ALARA principles—time, distance, and exposure is limited. Technologists should be encouraged to shower not only before work, but also immediately on returning home. In addition, technologists should change out of all scrubs, clothing, and shoes that were worn during their shift at their front door (to not have unnecessary exposure throughout their home). Because Nuclear Medicine Technologists practice ALARA principles—time, distance, and

SPECIAL CONTRIBUTION

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In some instances, institutions are following normal low census protocols, with other institutions developing shifts, or A and B Teams, which have technologists working slightly longer shifts during the day for a week (7–10 d), followed by a week off. This schedule allows for technologists on the various teams to not directly interact with one another. This strategy minimizes COVID-19 exposure and allows technologists time to rest and decompress, away from the hospital setting. The week off also helps to provide time for symptoms to develop, should the technologist be exposed. In addition, institutions have also initiated labor pools to assist in filling necessary shifts throughout the hospital, including necessary roles (screening, wiping down surfaces, isolation gown set-ups, labs, etc.) and using cross-trained technologists to assist in other higher volume and essential areas, such as CT.

Technologists are worried about direct exposure to COVID-19. What advice should technologists consider to reduce concern?

The most important way to significantly decrease exposure to the COVID-19 virus is to use proper hand hygiene (wash/sanitize hands) and to use PPE correctly. Some institutions have mandated PPE refresher courses for frontline and secondary staffing. For more information on PPE guidelines, please visit www.cdc.gov.

While the concern about access to PPE was extremely high in early March, institutions reported that they have enough PPE to get them through the crisis period, based on modeling reports. Due to early shortages, institutions have encouraged the reuse of isolation and facemasks and the reuse of eye protection. In these cases, nuclear medicine professionals are having to be trained on how to safely remove facemasks (to eat, to scratch face) and reapply to ensure no high impact areas (nose, mouth, eyes) are touched and exposure is limited. Technologists should be encouraged to shower not only before work, but also immediately on returning home. In addition, technologists should change out of all scrubs, clothing, and shoes that were worn during their shift at their front door (to not have unnecessary exposure throughout their home). Because Nuclear Medicine Technologists practice ALARA principles—time, distance, and
shifting. Technologists should lean on leadership within their department, whether that is the Nuclear Medicine Physician or Radiologist. If a technologist is not familiar with the administrative processes in their department or how staffing is managed, they should become familiar with them. Should the lead technologist, or any member of the healthcare team, become infected with COVID-19, it is important that all team members closely monitor their temperature and symptoms—as work-related exposure could occur.

What should a Nuclear Medicine Technologist do if they are asked to transition to another department or be furloughed? Do they have any options? What should they do if they are sent home (laid-off or furloughed)?

Interviewed technologists reported 6 different scenarios regarding hours worked and pay received during the crisis: (1) furloughed; (2) laid-off; (3) reassigned; (4) reduced hours with reduced pay; (5) full or partial pay from employers via sick, vacation leave, short-term disability, or “crisis” pay; (6) same hours, same pay, same or amended schedule.

While most technologists hope to fall into the category of still receiving a paycheck with the same pay, for some that is not an option. As a health-care professional and Nuclear Medicine Technologist, there may be times where caring for a patient puts their own health at risk. Before COVID-19, this was not common; however, times have changed, and some essential nuclear medicine procedures do put technologists at risk to direct exposure. Technologists must weigh individual options and make the best decision for their unique situation while still maintaining their professional responsibilities as a health-care professional. While a technologist may have been reassigned to a different job to help with the crisis, they should be encouraged to help the institution by doing what is required and help wherever needed. This could be in the form of checking patients at intake, wiping down equipment, distributing PPE, and the like.

If a technologist is furloughed or laid-off, they should use this time to their benefit. Spend quality time with their immediate family. Make sure they have all the continuing education (CE) credits needed for the year. Spend time networking with their colleagues and joining virtual meetings. Technologists should investigate what options are available to them in their state specific to unemployment. Technologists should also check with their institution’s Human Resources Department for any options that may be available to them. Monitor the stimulus packages that are being vetted through the federal government for any opportunities available to furloughed or unemployed health-care professionals. Research what grant and scholarship opportunities exist through professional associations (Society of Nuclear Medicine and Molecular Imaging [SNMMI] and others). Create or update resumes. Finally, technologists should make sure to stay in touch with their employer. This crisis will come to an end and when that time comes, technologists need to be ready to help with department ramp-up—they will need to be rested, healthy, and ready to conquer the backlog of patients waiting to reschedule procedures and the litany of new patients as a result of COVID-19.

What are suggested guidelines that institutions should be following?

All hospitals and institutions should be following the Centers for Disease Control (CDC) Guidelines for PPE (https://www.cdc.gov/coronavirus/2019-ncov/hcp/using-ppe.html). When scanning a suspected or confirmed COVID-19 patient, it is recommended that Nuclear Medicine Technologists wear a facemask (that covers their nose and mouth) and face shield or goggles to cover their eyes, gown, and gloves. It is essential that proper removal, disposal, or sterilization procedures are followed. In addition, universal masking—ensuring all individuals within the hospital wear masks—has been effective against the spread of COVID-19 droplets.

Hospitals should also have a point person who is monitoring the daily use and inventory of PPE. All updates regarding
the usage of PPE should be communicated promptly. Inter-
departmental communication as well as cross-department
communication is important as patients are transferred from
one imaging area to another. All rooms should be wiped
down in between patients, with expanded cleaning of the
imaging table or injection chair to include door handles,
gantry controllers, keyboards, phones, and the like. (Refer
to equipment cleaning procedures provided by the manu-
ufacturer to ensure proper cleaning.)

Are there any additional guidelines that Technologists
should consider implementing to keep everyone safe and
healthy?

All meetings should be conducted virtually when possi-
ble. This includes telemedicine appointments for patients.
Chairs should be separated in the waiting room to ensure
compliance with federal distancing guidelines. In addition,
al magazines, reading materials, toys, and the like should
be removed from waiting areas and examination rooms.
Departments should also consider preregistration by phone
for all patients, including screening for symptoms.

What should technologists consider as “essential” pro-
cedures or treatments?

Essential procedures or treatments are best determined
based on the patient needs and conditions, referring phy-
sician requests, and internal management—these are all de-
pendent on the institution and department and therefore
vary from hospital to hospital. In most cases, any imaging
that is needed for a patient to continue with treatment (on-
cology), cardiac symptoms, or acute immediate pain are
essential procedures. In general, technologists can determine
if a procedure is essential by asking the following question
“is the patient’s life going to be negatively affected by delay-
ing the procedure/treatment?” If the answer is yes, then the
procedure is essential. If the answer is no, then it is important
to determine what delay time frame is appropriate and will
still not negatively affect the patient’s life.

Are there procedures that technologists should consider
adjusting to ensure their safety?

Whenever possible, procedure times should be reduced
and altered to ensure the safety of the patient and technol-
gist. Examples include: (1) eliminate the ventilation por-
tion of the V/Q study and (2) avoid stressing patients on the
treadmill and opt for pharmacologic stressing whenever
possible. (For more information on procedure changes,
please visit www.snmmi.org/COVID-19.) In addition, if
available, a portable nuclear medicine scanner should be
used whenever imaging a COVID-19 patient, especially
one on a ventilator, to avoid transportation of the patient
to different areas within the hospital. For longer procedures,
if there is an opportunity to monitor the procedure through
a window or behind a shielding device, that option should
be implemented.

What should technologists tell patients who are declining
procedures or treatments at this time due to the crisis?

Interviewed technologists reported 2 types of patients:
(1) those who cancel and (2) those who are asking for
guidance. When a patient contacts the department regarding
a procedure, it is important for the technologist to answer
the questions to the best of their ability and within the Nu-
clear Medicine Technologist scope of practice. If a technol-
gist is unsure of how to respond to a patient’s question or
believes that it is outside the scope of practice, they should
refer the patient to the Nuclear Medicine Physician or Radi-
ologist and have the physician follow up with the patient
directly to answer additional questions. The technologist
should explain the risk versus benefit to the patient, specific
to the procedure or treatment they are delaying.

It is important that technologists provide the options
available to the patient. Should the patient wish to cancel
the procedure or treatment, notify the Nuclear Medicine
Physician or Radiologist so they can review the patient’s
file and determine next steps. As many physicians are using
telemedicine, the patient should be encouraged to also
reach out to their referring physician to discuss their op-
tions and risk assessment.

Are there resources that technologists can share with
patients to help them understand the importance of their
procedure/treatment despite the crisis?

The SNMMI has a Patient Resource Center (www.snmmi.org/
patientcovid19), which provides information specific to nu-
clear medicine and molecular imaging procedures for pa-

tients. In addition, the patient should be referred to their
referring physician to discuss the importance of their pro-
cedure and determine whether cancelling is an option. If a
patient must move forward with a scheduled procedure, it is
important to make the patient feel comfortable and reassured
that every process has been put into place to ensure the
health and safety of the patient and health professional staff.

What are some suggestions on how technologists can
be sure the department is ready to go once this crisis
passes?

It is anticipated that most hospitals will have an in-
cremental “opening” period whereby certain departments
and procedures are slowly reopened with a new or ex-
panded schedule. It is important that the Nuclear Medicine
Department is ready. Technologists are encouraged to start
planning meetings and to have conversations with the at-
tending physician as well as the referring physicians. Re-
view cancelled appointments and prioritize rescheduled
appointments to the most urgent cases. Read the informa-
tion provided by the hospital regarding projected COVID-
19 surges and reopen plans. Make sure that there is enough
PPE in inventory and begin to identify how the department
will adapt to the ongoing requirements of physical distanc-
ing. Departments may have to alter their schedule and
should consider extending hours or offering weekend ap-
pointments to get caught up on procedures.

What should Nuclear Medicine Departments do to be
more prepared should another crisis arise?

Institutions learned a lot about preparation from the
Ebola crisis. However, the COVID-19 crisis has brought to
the forefront numerous other strategies and preparation
tactics. Information and guidelines change almost daily, sometimes hourly—departments must have a strong com-
unication plan that everyone can understand. Every hos-
pital has had to enact crisis management protocols and have
adjusted patient flow to be able to assess and treat COVID-
19 patients. Some have been able to maintain close to nor-
mal operations while others have converted completely to
COVID-19-only operations.

It is important to know that each crisis (i.e., natural di-
saster, terrorist, or pandemic) will bring a different set of needs
and concerns. Plans should be distributed to all staff and
communicated through training courses to ensure understand-
ing. Institutions and departments should be encouraged to hold
periodic “crisis initiation” drills whereby they practice how
to implement the crisis plans should another situation arise.

As the crisis slows, institutions will begin to share their
stories, good and bad, about how they managed through this
pandemic. Technologists should be encouraged to read
journal articles related to best practices coming from the
COVID-19 crisis and work to implement these into their
department procedures.

It is anticipated that there will be a “second wave” of
COVID-19 and that the medical community will never be
the same as it was before. As the medical community works
to determine what the future will look like and how infec-
tious diseases will play a role in everyday health care, it is
important for the Nuclear Medicine Department, and the
Nuclear Medicine Technologist specifically, to be a part
of the discussions and solution identification.

Are there any other concerns technologists have that
have not already been discussed?

During times of crisis, when everyone is being asked to
do things they have not done, are on different schedules,
and have additional responsibilities (both at home and at
work), there is always a concern for mental health and
wellness. Technologists should be encouraged to use the
resources provided by their institution, Employee Assis-
tance Program (EAP), Social Work, and Spiritual Care.

Technologists should be reminded to monitor their own
health. Stay hydrated, get plenty of sleep, and try to
exercise on a regular basis. Find an outlet for mental health
such as walking, gardening, or reading. If a technologist
feels ill, they should be encouraged to stay home, do not
take any chances—by staying home, they are doing their
part to protect their patients and their colleagues.

SNMMI members are encouraged to join the SNMMI
Connect COVID-19 e-community and share their concerns
and challenges with their peers. This discussion board helps
to not only identify resources, but also answer questions
and provide guidance on difficult issues.