Fellowship in the Time of Coronavirus Disease 2019 (COVID-19): A Time to Adapt

Over the past few years, the members of the fellowship class entering in 2017 have seen and participated in a number of memorable and what we believe to be career-defining cases, from massive ST-segment elevation myocardial infarctions to incessant arrhythmias to cardiogenic shock. As we started our third year of cardiology fellowship at NewYork-Presbyterian/Columbia University Irving Medical Center, we all understood that we had committed to a lifetime of learning from patients, and the challenging cases we continued to see as the fellow on call prepared us to be humbled by the unexpected. The weeks surrounding the developing coronavirus disease 2019 (COVID-19) pandemic suggest that we have reached that very point of unexpectedness. The very pillars of our fellowship training—patient care, education, and scholarship—have been upended by this unprecedented challenge.

One emerging theme in this time of upheaval has been to adapt and readily change in response to the increasing demands COVID-19 places on our roles as cardiologists in training. Patient care, the most essential component of any medical professional’s training, has not been spared. Most are well aware of the communicability of COVID-19 with an estimated reproductive number of 2.28. For comparison, the reproductive number of the Spanish Flu of 1918 was estimated to be 1.80. Particularly relevant for medical professionals is the knowledge that a significant portion of the transmissibility of COVID-19 also appears to be hospital related. Knowing these disturbing numbers, our approach to patient care inevitably changes.

When the emergency department requests a consultation, we check and double check whether an evaluation could wait until the patient is on the medical floor to reduce the chance of an unnecessary exposure. When an ST-segment elevation myocardial infarction alert is activated, we check our pockets for a mask as we hustle to the emergency department, and we thoroughly vet all catheterization laboratory activations to avoid needlessly exposing other health care workers. If we do proceed to the catheterization laboratory, we are triple checking appropriate personal protective equipment for both health care workers and patients. Before and during COVID-19, the goal has been, and always will be, to provide the highest quality of care to our patients. However, there has been a palpable shift to a public health perspective that necessitates that we now learn how to provide the highest quality of patient care while maintaining a safe environment for patients and health care workers.

In any other time, our fellows’ clinic is a place where dozens of cardiac patients from our community assemble into a common waiting room. Rewarding interactions focused on making our patients feel better and hopefully live longer are the mainstays of clinic time, and many patients simply appreciate the reassurance and the “doctor’s touch” when we greet and examine them. Unfortunately, congregating cardiac patients, an extremely high-risk population in the COVID-19 crisis, at a time when it is recommended to avoid gatherings of more than 10 people, may expose patients and health care workers to too much risk. As such, all nonessential in-person clinic visits have either been rescheduled or converted to telephone encounters. Auscultation and the assessment of jugular venous distension, the classic tools for a cardiologist, unfortunately cannot be part of our regular assessments. While the personal touch of being a physician is necessarily lost, we are instead learning new skills and learning to be comfortable with a different degree of uncertainty. In crisis, we adapt.

Education is an indispensable element in any medical training program, and while it continues, it has evolved to prioritize safety. What were once lively roundtable lectures and discussions among assembled fellows and attending physicians have now been replaced with live video conferences and electronically shared PowerPoint presentations. Grand rounds are now live streamed. One of the largest international cardiovascular conferences, the 2020 American College of Cardiology Scientific Sessions, previously set to convene in Chicago, Illinois, instead became a virtual meeting. Of course, we lament the loss of in-person education and meetings; however, these exigent circumstances have compelled us to find creative ways to maintain the educational mission of our program while still preserving the health and safety of our community, both at Columbia and at large.

While lectures and conferences can readily be made virtual, other aspects of our training, namely procedural competency, may prove much more challenging. For example, proficiency in techniques such as cardiac catheterization and transesophageal echocardiography are critical aspects of cardiology training. However, in an effort to conserve inpatient beds and personal protective equipment for instances where they are most needed, elective procedures have, appropriately, been deferred. Once bustling catheterization laboratories, replete with gowned and gloved fellows, are now uncharacteristically still. We can now only wonder when we will be able to train in these procedures again.

Similar to patient care and education, scholarship, the final core pillar of our training, must also evolve in the era of COVID-19. As trainees at an academic medical center, research and scholarly work are familiar aspects to our training. Conducting research at least requires data, collaboration, and time, all of which have been severely affected by COVID-19. To minimize expo-
sure, we no longer commute to our respective research offices, making progress with data extraction and subsequent analysis challenging. Clinical trials have come to a standstill as participants are advised to avoid nonessential medical encounters. Collaboration must now all be virtual; gone are the days of impromptu meetings and brainstorming sessions. Available research time has diminished owing to the clinical demands on health care workers. Research efforts have not stopped, but our ability to conduct it has changed.

Aside from its effect on our professional lives, COVID-19 has also significantly affected our personal lives. Medical training is rigorous and both physically and emotionally demanding. Time spent with family and friends is critical to maintaining our mental health but must now be sacrificed to mitigate the risk of infectious spread. For example, many of us feel that it is prudent to avoid in-person meetings with older family members and friends, such as our parents, who are at the highest risk if infected by COVID-19. Time spent with friends has been reduced to telephone calls, text chains, and video conferences. Even the camaraderie of the fellowship, built on shared meals and commiseration, diminishes because we are no longer able to congregate in a single location. However, in this time of crisis, we must adapt. Time spent with those we can is precious. Frequent electronic messages of support and laughter are essential. A weekly fellowship class video chat is indispensable.

The generational challenge that we are now facing with the COVID-19 pandemic is not one we ever expected when we walked into the conference room on our first day of cardiology fellowship less than 3 years ago. As physicians often caring for the most critically ill and vulnerable patients, it is our duty to provide them with the highest level of care. However, now we must simultaneously also look after ourselves and our fellow health care workers. While circumstances certainly come to mind where we may have brushed aside our own well-being for the sake of patient care, we must now balance our commitment to care with our own personal health, professional growth, and education, and we must accomplish this amidst great uncertainty. How do we do this? We accept the ever-changing circumstances and adapt.

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