The Art of Oncology: COVID-19 Era

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Disclosures of potential conflicts of interest may be found at the end of this article.

Conversion of a busy inpatient oncology service that typically treats more than 5,000 patients a year to units caring for patients with COVID-19 is a story of teamwork and resilience.

**Warning Bells**

Even before SARS-CoV-2 had officially arrived on U.S. shores, our hospital, like many others, had started to prepare. We engaged in modeling impact on hospital capacity, obtaining personal protective equipment, securing ventilators, and organizing a military-like operation to prepare for the possibility of a pandemic. These models predicted that hospitals throughout our area would face a surge of inpatients, the volume of which would be unlike anything witnessed in our lifetimes.

In early March, the hospital recommended a dramatic increase in the number of inpatient and intensive care unit (ICU) beds devoted to patients with COVID-19. It followed that we would need a similar dramatic increase in staffing to cover this surge of patients.

**Coordinating Our Response**

In a phased approach, the institution closed nonessential services, transferred pediatric patients to nearby medical centers, and began to train those who would provide COVID-19 care. These efforts ensured that 12 hospital floors (307 beds) and nine intensive care units (179 beds) could be dedicated to COVID-19 care, representing a 35% increase in our general medicine and a 400% increase in our regular ICU bed capacity. Surge ICU space was created from two postanesthesia care units, one perioperative care area, one 32-bed oncology floor, and a 32-bed neurology floor.

Staffing of these floors by the usual complement of residents, fellows, and hospitalists would not be sufficient to meet this demand and plans for additional staffing were quickly implemented. Our Division of Hematology/Oncology was among the subspecialties that volunteered to the Department of Medicine effort, and we recruited colleagues from neuro-oncology and from community satellite clinics. At our side would be numerous residents and fellows—trainees who would be sorely tested and who would later reflect on both the unfathomable terror and enormous benefit of the experience.

**Training for the New War**

Before our medical oncologists could join in the fight on the COVID-19 units, training had to be completed, floors and ICUs readied, and rotations scheduled. All of this happened within days, or sometimes within hours. In parallel, each subspecialty was tasked to grapple with the outpatient transition from in-person to virtual care. Nowhere was the impact of this transition felt more acutely than in the cancer center, where in-person visits are frequent and many patients require care that cannot be given remotely. Clinic schedules were rearranged to minimize the number of providers required in our outpatient clinics to accommodate inpatient service deployment.

One of our responsibilities was to prepare the first wave of oncologists who would treat the COVID-19 surge of patients. Beyond the fact that this was unnerving and unfamiliar, we also had to think about admission order sets, medication reconciliation, and completing discharge modules—all within the context of an electronic medical record system that had not existed a few years before. Many of us were years beyond internal medicine board certification and deep into subspecialty careers, with the days of performing arterial blood gas checks and removing central lines a distant memory.

On top of needing an Intern 101 refresher, we also needed fluency in the rapidly changing language of COVID-19—identifying risk factors, categorizing patients with
severe disease, determining when to use certain drugs, treating co-infections, and discussing antiviral clinical trials with patients—all while understanding that there was a lot that we simply did not know about this new disease.

Our oncology team would eventually take over the 24-hour staffing of three COVID-19 units. Some of us would cover the overnight shifts, which was a radical change from our usual daytime routines. In considering schedules, it was imperative to ascertain the needs of each provider with regard to personal health issues, parenting/caregiving responsibilities, and myriad other factors. We took into consideration the possibility that many individuals might become ill or need time out of work. With these layers of information, we built a schedule to include five layers of backup on every given day.

Confounding this complicated plan was the uncertain timetable of the virus! When would the surge of ICU patients hit a peak? How long would patients require hospitalization? Would we be overstaffed or understaffed? Despite our perceived careful planning, it often remained impossible to respond to the unanticipated operational oscillations that would suddenly appear and demand immediate attention.

The challenge of implementing such wide-sweeping changes was anticipated to be a little rocky, particularly because patient lives were at stake and because providers were facing a deadly and contagious disease. Our operational and logistical plans had to be seamless with the important goal of delivering care proficiently and safely.

Voices from Oncology Staff at the Front

One of the challenges in treating COVID-19 was in learning how to correctly don and doff our personal protective equipment (PPE). Unfamiliar, unwieldy, time-consuming, and uncomfortable, the correct use of PPE was nonetheless essential in minimizing self-contamination.

“We are doing enough. There are no effective treatments, and you feel that you are not doing enough.”

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Early on, it was evident that there were racial and socioeconomic disparities in the population affected and admitted with severe COVID-19. We saw a high proportion of Hispanics and adapted our teams to include at least one Spanish-speaking physician in addition to normal translator services.

“Being alone in the hospital with an unfamiliar disease was hard for all patients and probably more so for those that spoke only Spanish. Being bilingual gave me a chance to directly connect and to feel grateful that I could advocate for my patients during this challenging time.”

As visitors to the hospital were strictly prohibited, we faced the challenge of engaging with patients and their families via telephone and teleconferences. This flew in the face of our normal inpatient oncology care, where one might sit on the side of a patient’s bed or perhaps just stay in the room.
and listen to the family chat among each other. This terrible burden of loneliness only added to the anxiety and suffering of our sick patients and their home-bound families.

“Patients on the COVID units faced this illness alone, without family or friends, separated from their care providers by layers of PPE. Finding ways to provide a more tangible, human connection—while also minimizing my exposure—was a challenge I faced every day.”

From the onset, we had to quickly adapt to ever-changing recommendations and working conditions. We were not only learning about an entirely new disease but also doing so in the context of new wards with new teams and an evolving schedule.

“I quickly learned that my go-to style of leadership—relying on the deliberate building of consensus—does not work well in a pandemic. During the COVID-19 surge, the rapid messaging made it impossible to engage in my customary manner. We faced a reality outside of our normal routines and had to adapt, carry on, and rely on each other.”

UNITING TO FULFILL A NEW CALLING
At the peak, we staffed three COVID-19 units, day and night. Ninety-four highly specialized academic oncologists served over 750 surge shifts and over 130 shifts in the COVID-19 ICU. These 12-hour shifts were stacked on top of inpatient responsibilities and outpatient virtual appointments.

At the outset, we did not ponder how well-suited oncologists are for a pandemic. Oncologists attempt to marry compassionate care with up-to-date research. We encountered multiorgan involvement and regularly see patients in critical condition. The general framework of multidisciplinary team care translated well onto the COVID-19 wards and to this different type of patient who required simultaneous management by inpatient medicine, infectious disease, and pulmonary teams. Furthermore, because of the unpredictable nature of cancer, oncologists are accustomed to dealing with unknowns, adjusting and considering alternate treatments as a patient’s disease progresses. In practicing the art of oncology, we tried to guide our patients and their families through these trying times with empathy and clear communication. All of these skills were invaluable during the inpatient battle with COVID-19.

“COVID-19 is marked by relentless loneliness and fear. These emotions are experienced by individuals, families, and communities. In the face of this, we mobilized our best skills as oncologists to provide individualized and compassionate care, while supporting each other as colleagues and friends.”

REACHING THE OTHER SIDE
We wanted to be brave—to stare down the unknown and provide care for our patients in the most adverse circumstances—and manage to stay strong while doing so. The reality is that we were often uncertain, anxious, and concerned. But we found strength and resilience as a team and supported each other in addressing and overcoming our fears.

As the first inpatients recovered and were discharged (as of June 23, 2020, there have been 1,510 individuals), a sense of relief started to replace the fear. This group of oncologists-turned-interns demonstrated that they possessed the skills to step into an uncertain situation and care for a new patient population.

“It was humbling to take care of patients with COVID-19. More than ever we needed compassion and emotional connectivity with our patients and their families battling this devastating and isolating disease.”

June 10, 2020, marked the end of the oncology surge effort and a time to reflect on the previous 83 days. It was truly a team effort; physicians from all disciplines, nurses, nurse practitioners, residents, fellows, interpreter services, environmental services, dietary services, patient transport, and administrators were all critical. This experience made us better, stronger, and more human. By employing the art of oncology, we helped in a time of great need and remain prepared for whatever the future may bring. We now know that, together, we can face danger and enormous uncertainty and still find safe harbor on the other side.

DISCLOSURES
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