Happy Hypoxic

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THE TIME OF COVID HAS BEEN ONE OF RAPID ADAPTATIONS as a resident. One by one, changes came to the ophthalmology department at Boston Medical Center. First, clinics and elective surgeries were canceled. Then one afternoon in March, the first years were told we were being pulled to COVID floors in 2 days. This announcement came amidst a flurry of news coverage about the virus's rapid dissemination through the country and our governments' slow response to it. My mind jumped to news reports of shortages in personal protective equipment (PPE) and rumblings of health care workers dying. My fear quickened as I realized it had been almost a year since I had been on internal medicine floors. I prepared as best I could amid the surreal. I watched the how-to donning and doffing videos several times, scanned emails to figure out where my team would meet, dug out my old stethoscope, and read through the COVID resource and treatment guide. Then, the first day came.

I walked the same route to work and walked in the same front entrance as if it were any other day. But this day, I was handed my daily N-95 mask as I headed toward the inpatient floors, away from the ophthalmology clinic. I was assigned to a floor that had been converted from the medical-surgical floor to a COVID overflow floor. I was given a computer in the maxillofacial workroom. My computer had stickers—little cartoon teeth—on the monitor. The previously designated general medicine, surgical, heart failure, and stroke floors no longer existed. The entire hospital had redirected its efforts to COVID.

Boston Medical Center (BMC) is a safety net hospital in the South End of Boston. In mid-April, the Boston Globe dubbed BMC "the heart of the coronavirus storm."[1] At the beginning of the surge, the hospital ran out of intensive care beds and needed to transfer patients to nearby hospitals. In response to the rapidly increasing number of patients with coronavirus, the hospital was reorganized and reconfigured. Doctors, nurses, and support staff alike were repurposed to new posts. BMC cares for some of the most vulnerable patient populations, including the uninsured, undocumented, and homeless. These patients often have multiple underlying comorbidities and have been shown to be at a disproportionately higher risk for worse outcomes during the COVID-19 pandemic.[2,3]

I took stock of my list of assigned patients. Although every patient I followed was admitted for COVID-19, I focused on my routine. The steps were clear—listen to sign out, chart check, pre-round, round, complete tasks, write discharges, and, before you know it, the day is over. But some things were not routine. They served as a reminder of an invisible enemy—both highly infectious and largely unknown. I shortened my patient conversations in the room, used phones when possible, and performed tasks previously designated to nurses, such as replacing batteries on the monitors and giving medications, to limit my (and nurses') exposure to the virus. I tried my best to stay up to date with the ever-changing treatment flow sheets sent out by the hospital. How we treated COVID changed dramatically during the weeks I was on the floors. One day we used hydroxychloroquine and azithromycin, the next day colchicine, and the following week, we stopped all use of these medications. It seemed there was very little we could do to halt the natural progression of the disease. Our efforts were instead devoted to titrating oxygen levels and monitoring a patient's stability or lack thereof.

One day I was about to discharge a seemingly improved 70-year-old patient. The nurse rushed over to me—his oxygenation had dipped to 60%-70% for several minutes and was not improving. I quickly donned my PPE and entered the room expecting to find a man gasping for breath. But there he was sitting up and eating his eggs. I asked him how he felt, could he breathe, did his chest hurt? He looked at me confused and said, "I'm fine, I'm just eating." I rushed to confirm that his pulse oximeter was functioning properly. I encouraged him to take deep breaths. He went from an oxygen requirement of room air to 6 liters, all while smiling. It was the phenomenon of the "happy hypoxic," where infected patients with hypoxia could be comfortably chatting at oxygen levels that would typically cause serious distress.[4] This is certainly how my patient looked—happy and hypoxic. It was unnerving that a clinical reality could be so far from the placid surface. Moments like these kept me on high alert every day. Luckily, this patient slowly improved with higher oxygen supplementation and did not need the ICU. Many patients were not as lucky. He was eventually discharged home to his wife.

I found I could make the biggest impact by communicating with patients and families. Whenever I could, I called grandchildren, children, spouses, and caretakers to update them on their loved ones. Many expressed an intense fear of the virus and were understandably upset they could not visit. With no family members to visit,

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and doctors and nurses limiting their time in rooms, patients were lonely and isolated. When I did enter the room, the physical barrier of protective equipment rendered me indistinguishable from any other health care worker. That gear erected an emotional barrier too. Meaningful conversations were tough. I tried my best to quell fears and anxieties and explain current treatments and plans. It was glaringly apparent that there was still much the world needed to discover about COVID-19 and how to treat it.

Despite the uncertainty of the unknown, this virus reaffirmed the good in people and BMC. Thankfully, I did not feel the stress of a lack of PPE, and my fears about getting myself or my family sick were not borne out. I felt supported by the ophthalmology department and by my colleagues in the internal medicine department. I received encouraging texts, check-in emails, lunches donated by the community, and a sense that I was a part of something bigger. The outpouring of support was remarkable.

Life at the hospital has somewhat normalized. I am back to work as an ophthalmology resident. Clinics and surgeries are slowly ramping up to their pre-COVID capacities. My experience on floors could have been hard and stressful, and while difficult, it was also meaningful and rewarding. I came to appreciate my role as a resident on the COVID floors, forging connections with patients, new co-residents, and unfamiliar attendings. The pandemic reminded me we are not only ophthalmologists, radiologists, neurologists, or internal medicine specialists. We are physicians first. To date BMC has discharged more than 1,000 recovered coronavirus patients, and that number is only climbing. We became part of this history; participating in this coordinated hospital-wide effort is something I will remember for the rest of my career.

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