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PERSONAL VIEWPOINT

New normal: caring for hospitalised patients in the Bronx, New York, during COVID-19

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Abstract

The Bronx, New York, is the poorest congressional district in the United States and has the highest COVID-19 infection rate in New York City. COVID-19 has led to major changes in our healthcare system, including heightened infection-control practices, novel staffing patterns and widespread social distancing. In this article, we describe how our experience with inpatient care has changed in the wake of COVID-19.

The United States has borne witness to higher mortality than any other nation due to COVID-19, and New York City (NYC) is the hardest hit locality nationwide. As of 15 August, there were nearly 170 000 deaths in the United States, and nearly 19 000 confirmed COVID-19 deaths in NYC alone.[1,2] In the Bronx, which is the poorest congressional district in the country and where our multi-hospital system is largely based, the infection rate is highest among all NYC boroughs at 3539 per 100 000 people, and there have been nearly 5000 confirmed and probable COVID-19 deaths.[2] Because of its extreme contagiousness and high mortality among severe cases, COVID-19 illness due to SARS-CoV-2 infection has led to major changes in our and other healthcare systems, including heightened infection-control practices, novel staffing patterns and widespread social distancing. In the process of optimising care for COVID-19 patients and safety for healthcare workers, a 'new normal' has been established in healthcare systems, from which it is unclear if or when we will return. While some aspects of our new normal have been challenging – or even disheartening – many of the changes that define our new normal have been inspiring.

During the initial 2 weeks of the COVID-19 epidemic in NYC, the daily census of SARS-CoV-2-infected patients at the three largest hospitals in the 11-hospital Montefiore Health System rose exponentially from less than two dozen to over 1000 inpatients. Our system's intensive care unit (ICU) capacity was expanded from 106 beds at baseline to 258 at the peak, with 90% of patients admitted to the ICU with COVID-19 related illness. Montefiore swiftly converted conference and operating rooms to patient care areas, deployed specialty fellows and attendings to COVID-19 floors and obtained additional equipment to accommodate the rising tide of patients. This unprecedented and dramatic rise made it crystal clear that new processes needed to be quickly established to ensure high quality care and safety for all. From the start of the third week of the epidemic, when the COVID-19 inpatient census approached 2000 in our healthcare system (and where it stayed for approximately two more weeks), we were greeted at the one open entrance to each hospital by redeployed workers and volunteers who took our temperatures and gave us brown paper bags stocked with personal protective equipment (PPE), including an N95 respirator, surgical mask, face shield and new hospital scrubs. These greeters, who were from all departments, welcomed each hospital worker with a smile and kind words, and this multidisciplinary welcome set the tone for our day.

While we experienced an extreme surge of inpatients, we also watched many of our attending and resident

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colleagues become infected with SARS-CoV-2: in our Division of General Internal Medicine, 35% of both attending physicians and internal medicine house staff were removed from work for varying lengths of time due to confirmed or presumed COVID-19. Even without this large concentration of illness among physicians, it would not have been possible for our dedicated, hard-working internal medicine house staff (we have two large internal medicine residency programmes with a total of 245 resident physicians) alone to care for all of the hospitalised COVID-19 patients. Consequently, traditional internal medicine teams (usually including one or two interns, one resident and one attending) were largely replaced by teams of one medicine intern or resident, one allied resident from another department (e.g. radiation oncology, orthopaedics, psychiatry) and one internal medicine attending, either a generalist or a subspecialist, caring for 10–12 patients. Allied residents received on-the-job training by the medicine house staff and joined their educational conferences, where the newest COVID-19 research and clinical protocols were reviewed. We discovered that each allied resident brought unique skills to our teams taking care of COVID-19 patients; for example, residents from surgical specialties helped us with procedures and with ensuring that we donned and doffed our PPE properly, and psychiatry residents helped patients manage anxiety about COVID-19 and hospitalisation. Although our allied residents were not practising in their chosen fields during this time, they were deeply committed to helping our COVID-19 patients recover, and to doing all they could to ensure that our teams functioned effectively and safely. Our internal medicine house staff were eager both to support and learn from the allied residents, which we hope will facilitate better interdisciplinary patient care in the future. We were also supported by a comprehensive system of electronic, virtual consultants from infectious disease and other medicine specialists, as well as a critical care command centre to help manage ICU-level patients throughout the hospitals.

Social distancing – a form of infection control – has been a hallmark of the new normal, including inside the hospital. We are accustomed to taking care of individual patients isolated for infections such as tuberculosis or *Clostridium difficile*; however, isolation is no longer instituted only on the individual patient level. During the first 3 months of the pandemic, entire hospitals were limiting contact between persons; this meant that patients could not have visitors, which was particularly difficult for our patients with limited English proficiency for whom family members often assist with translation and communication with the medical team. Even more than usual, facilitating connection between patients and their loved ones has become an important part of our jobs. Stable patients had conversations with their family members using the phones in their rooms or their own smart phones. However, linking frail or elderly patients, that COVID-19 affects most severely, to families they were unable to call themselves was one of the most important new roles that we – the medical team – played. Because of the increased patient census and widespread illness among the healthcare workforce, nurses were stretched thin and often did not have time to help patients make calls to their families. In the new normal, we found this to be a critical function of the medical team, a vital part of the healing process and of our treatment plan. These moments of helping with phone or video calls allowed a level of intimacy with our patients, despite the barrier imposed by our PPE. While our PPE causes both physical and symbolic distance, it is because of PPE that we are able to get close enough to help patients use electronic technology to connect with loved ones. In addition to physicians, many other hospital workers played a role facilitating connection between patients and loved ones. For patients who were terminally ill, our healthcare system arranged limited, final, family visits. For the deceased, partnerships forged with security personnel allowed personal property to be given to families.

In the new normal, we observed dramatic changes to our healthcare system and to our roles within it. Yet, much remained the same about caring for the people of the Bronx. Health disparities were even more polarised in the era of COVID-19.[3] Racial and ethnic minorities in NYC (specifically Black and Hispanic New Yorkers) are disproportionately impacted by COVID-19 infection, hospitalisation and mortality.[4] These disparities are due in part to higher rates of chronic comorbidities, such as diabetes, hypertension and obesity, but are also attributable to crowded living conditions, employment that cannot be performed at home, an overburdened public transportation system and poor access to preventive and other healthcare. Additionally, while national and state policies state that patients are not responsible for COVID-19-related healthcare costs, our patients still fear that they will be unable to afford healthcare and may delay seeking care for this and other reasons. Sadly, rather than being a great equaliser, COVID-19 has exacerbated already pervasive health disparities.

Amid these challenges, our healthcare system's transformation saw all staff, including nurses, respiratory therapists, residents from all disciplines, attending physicians, laboratory technicians, transporters and other healthcare workers, continue to take risks to care for patients in need. While roles have fundamentally changed and continue to shift, we observed these new roles

become normal in an unusually short period of time. In our healthcare system and in NYC as a whole, we eventually saw COVID-19 hospital discharge rates surpass admission rates and daily COVID-19 death rates decline. But until we have a vaccine, an effective cure, or both, an evolving form of the new normal will persist, and while we may revert to the way things were before, lessons from COVID-19 must be retained.

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