



## A Conversation with Matthew Leibowitz, MD, Chief of Infectious Diseases

*During the COVID-19 pandemic, someone needed to serve as lieutenant general. At Newton-Wellesley, that was Matthew Leibowitz, MD, Chief of Infectious Diseases, who says he spent most of his time and energy making plans, troubleshooting and worrying. He shares his initial observations, wishful thinking and what he learned during a relentless period of time. He also reflects on the resilience and strength shown by his Newton-Wellesley colleagues.*

### Do you recall when you first heard about the novel coronavirus that led to a global pandemic?

Yes, I received a report on January 7 that there was a new virus in China. It was in the regular email I receive from The International Society for Infectious Diseases. During the following month, the virus was still restricted to Asia, but there was concern about travelers, including a student from Boston who had returned from China in early February.

At that point, it wasn't clear that this new virus was going to be different from SARS—also a coronavirus—which appeared in 2003. SARS was terrible and had a huge impact in Asia, but it had been contained, and it went away in a reasonable period of time. Back in

February, I thought this coronavirus would behave similarly to SARS; it might have a significant impact, but it wouldn't be a global pandemic. In retrospect, that was wishful thinking.

### What did you next observe about this virus, COVID-19?

Two things seemed remarkable to me. First, the virus had been identified, isolated and sequenced in a Chinese lab, so they knew its entire genetic code at a very early stage. It made me realize how far we've come in terms of technology. Second, I was astounded at how the Chinese government cracked down—first in Wuhan province, and then throughout the country—by requiring people to quarantine. I remember wondering if Americans would be willing to do the same thing.





In late February, it appeared they had things coming under control in China. But then cases began increasing in Iran and Italy, and when the Biogen cases popped up in Boston—the result of a meeting attended by infected individuals who had traveled from Europe—we understood that the virus really was here. As we've seen, there have been many more cases of COVID-19 in the northeast—New York, as well as Boston—than on the west coast. This is probably due to population density and travel patterns.

### **You and your infectious disease colleagues are familiar with other coronaviruses. How is COVID-19 different?**

It appears that the COVID-19 virus is more active in the upper airways. As a result, it is transmitted much more effectively than, for example, SARS, which affected the lower respiratory tract. Because COVID tends to be located in the nose and mouth, it can be transmitted more easily. Also, there is a period of time before somebody develops symptoms when it can be spread from person to person. COVID-19 is much different from other coronaviruses, such as SARS and MERS, in its transmissibility.

### **What became important as you realized you would be seeing an increasing number of patients at Newton-Wellesley?**

So many systems that didn't exist had to be put in place—testing, triaging patients, finding space for

providing the right care and protecting our healthcare workers. That first weekend when things became serious, Mark Lemons [Chair of the Emergency Department], Jon Snider [President, Newton-Wellesley Medical Group], and Amy Israelian, a nurse practitioner, led the work needed to create a testing tent on the roof of the parking garage. They used various elements, including ideas from South Korea, to cobble together a system so that patients could drive up, park and be tested. It's been refined since then, but they made it happen. Dr. Snider then worked with our family medicine team to create a respiratory infection clinic. All the hospitals around town, including members of Partners HealthCare, came together to take on the problems that arose. It was pretty amazing to see.

Our nurses, of course, spend the most time at the patient's bedside. It's true that many patients have died alone, but our nurses have used iPads to communicate with family members, especially as patients become sicker. Hospital leadership has crafted a safe visitor policy that allows family members to visit at the end of life.

### **Did certain specialty physicians become important as you began to understand how COVID-19 behaves?**

Cardiologists have been challenged due to the heart failure and sudden cardiac collapse we've seen in some of our sickest patients. There has been an unexpected need for dialysis and careful kidney support, which often requires transfer between the hospital and



outpatient dialysis centers. Our critical care team has been incredible—working overtime and ventilating patients as needed.

So many medical specialists have jumped in and filled roles they would never have anticipated. Dr. Robert Friday, one of our rheumatologists, has been making rounds and taking care of patients, serving as a hospitalist. As the surge in patients with COVID-19 peaked at 117 in late April, many specialists served as primary care physicians for hospitalized patients. There have been so many things to consider in the face of this pandemic. Our oncologists have struggled with how to care for their cancer patients who require treatment—that is, how to provide it safely during the pandemic. Everyone at Newton-Wellesley has gone super-above and beyond.

### **What are the most important things you will take away from this experience?**

There needs to be better support for public health. Local public health agencies don't have the capacity to deal with a pandemic. They have been drastically

underfunded and understaffed for a long time. As a result, elders in nursing homes and economically disadvantaged people are the most vulnerable to something like this. We're not going to solve it in the next few months, but we need to focus on public health.

At Newton-Wellesley, we've learned how to configure the workforce, as well as the hospital itself, to be ready to care for a surge in patients. We had surge plans in place, but they had to be updated and adapted to the specific scenario we encountered. We saw how our staff will quickly find ways to create new testing sites and clinical units. We know how to deliver care in a flexible way, but we need to improve on it. We've been using telemedicine, but some patients need face-to-face visits. How do we provide more telemedicine in ways that are effective and safe while addressing the patient's needs?

### **Have there been moments when you realized you were proud of your colleagues?**

Yes, mostly when I see people leaving at the end of the day. On the rare occasion when I've seen people with their masks off, I can see the reactions on their faces. It's like they've been in battle together, providing care like it really is wartime, because they're putting themselves at risk. People I would never expect to come to work wearing scrubs—suit and tie people—are out there in scrubs. They are diving in and doing whatever is needed.

At the beginning, there was a lot of anxiety and fear: are we going to be infected by our patients? But once our physicians and nurses started caring for COVID-19 patients, they realized: yes, we can do this. It seemed as though people remained anxious until they saw their first COVID-19 patient. They needed to confront it face-to-face. Also, personal protective equipment has been quite effective in keeping the staff safe.

Some people will experience post-traumatic stress from having worked in the hospital during the pandemic. But many people have discovered, by caring for our patients, how resilient and strong they are. As we get back to normal and begin interacting with patients again, some will come in with fever and a cough. We'll know what to do, and we'll continue to keep our people safe.



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