Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Art of Medicine

COVID-19 and cancer care in Bermuda

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I declare no competing interests

Bermuda is a very small island nation with a population of 62 400 people, located in the middle of the Atlantic ocean. A high-income country with the third highest health-care spending per capita in the world, it has close medical links to numerous top-ranked US hospitals and government ties to the UK. And yet, intellectual, academic, and physical distance from specialty-specific colleagues at times creates uncertainty and isolation. Every decision made comes with levels of insecurity and doubt. As a solo practitioner in prepandemic times, I created a unique network of clinical collaborators. However, ultimately, I have to accept the huge responsibility of being the sole radiation oncologist for a country. It is the most difficult role I have taken on as an oncologist. That was even before Bermuda joined the world in trying to find a way to fight the coronavirus disease 2019 (COVID-19) pandemic.

There is no doubt that there are many places around the world with a more challenging situation than we find ourselves in Bermuda. However, our geographical isolation combined with our very small population and small medical workforce means there is a sense of vulnerability that we probably share with other small island nations. Furthermore, our health-care system is generally not very integrated and collaboration between the public and private sectors has been forced to ramp up rapidly.

My usual role is Medical Director and radiation oncologist at a charity, Bermuda Cancer and Health Centre (BCHC), and medical oncologist at King Edward Memorial Hospital (KEMH). During the pandemic, I have also stepped in as Deputy Chief of Medicine at KEMH while the Chief of Medicine, the island's only infectious diseases specialist, focuses on COVID-19 preparedness. This new role has given me a broader perspective and enabled me to try and ensure that patients with cancer are not overlooked. As the pandemic shifted from theory to reality, workflow changes and difficult decisions have had to be made quickly, but without the support of committees, think tanks, and researchers that a larger country can call on.

The earliest example was a decision to suspend routine screening mammography even before our first confirmed case of COVID-19. At the time, it felt like a huge or even premature decision, but in retrospect the outbreak was indeed established and the decision correct. Another immediate task within the hospital was to free up physical space by relocating the entire oncology outpatient clinic and chemotherapy suite to another location. The new location had to be found, designed, and conceived. New contingency protocols for which cancer diagnostic imaging studies were crucial had to be developed, and rationalisation of cancer treatment priorities and timing decided.

At BCHC, our clinical radiation team is very small: one physician, one physicist, three radiation therapists, and two nurses. Redundancy planning is stark and we have to protect staff and patients. Early on in the outbreak, two of our three radiation therapists were quarantined. Our physicist and I teamed up to be a second therapist. We extended treatment times, added extra checks, and ensured that all patients were treated safely. The normal workflow of day-to-day work has altered drastically in weeks, moving to video consulting, scheduling staff rotas to minimise the risk of infection between team members, procuring personal protective equipment, and developing protocols for its use. We do our clinical treatment reviews as we collect patients from the car park one at a time, and escort them directly to the radiation medical linear accelerator (LINAC) machine. These new measures are all out of our normal comfort zone, but patients are as equally adaptable as the staff.

Although some of our new approaches are unique to our setup, decisions we have had to make in real time have been validated when protocols and guidance established elsewhere, including by the Royal College of Radiologists in the UK and the American College of Radiology, have reached the same conclusions. BCHC has a clinical collaboration with the Dana-Farber/Brigham and Women's Cancer Center (Boston, MA, USA) and they have been incredibly helpful.

Beyond the focus on oncology, a group of local primary care physicians have set up a group email chat as a forum for information sharing for all physicians on the island. The group email very quickly showed that the challenges being faced across all specialties were very similar and that we could learn and share a huge volume of ideas across the group. The conversation also exposed the challenges of an

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unstructured health-care system without a clear leadership framework.

It was clear that numerous groups were looking at the same problems. BCHC received an extra supply of face masks from a local nail salon and industrial N95 masks from a furniture company. Enquiries were made about using ventilators from veterinary surgeries. As the initial flurry settled, individuals' natural leadership, collaborative, and strategic qualities came to the fore. Responsibilities and formal and informal roles were shared across a previously disconnected group, and pathways such as procurement of personal protective equipment have become more centralised.

As alterations in pathways of care become the new reality in everyday working life, they will require continual reassessment. Reaching out to local colleagues outside one's specialty means that the burden of responsibility will be shared and that many similar challenges can be worked on together. Outside the medical field in Bermuda, there has been an incredible willingness to help. This is where a small island community comes into its own. The 60 000 of us living here have to share its 20 square miles. We can only do that if we work together.

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