Is It Safe to Delay Cancer Treatment Due to COVID-19? This App Helps You Decide

The free OncCOVID app calculates mortality risk should care be postponed.

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As COVID-19 continues to sicken and kill people across the nation, those who have cancer have been faced with a terrible choice: Seek treatment and risk contracting the virus or stay put and risk metastasis.

OncCOVID makes that choice a little easier for both patients and their doctors. Developed by a team of data scientists and oncologists at the University of Michigan, the free app synthesizes personal medical information with national and local disease statistics to calculate the relative mortality risk of delaying chemotherapy, radiation or surgery.

“It’s essential to balance the need for treatment for this very serious disease and the extra risk that COVID-19 poses for cancer patients, whose immune systems are often compromised,” chief investigator Holly Hartman, MS, a PhD candidate in biostatistics at the University of Michigan School of Public Health, said of the significance of the app’s design.

The app prompts medical practitioners to enter pertinent information—such as age, location, cancer type, cancer stage and preexisting conditions—about individual patients. It then provides mortality estimates for several different scenarios, including one in which the patient develops COVID-19 within the next six months, one in which the patient receives immediate cancer treatment and one in which the patient receives delayed cancer treatment.

An otherwise healthy 45-year-old woman with Stage I breast cancer from Nevada, a state with very few coronavirus cases, for example, would not be particularly likely to die of either COVID-19 or her cancer within the next five years. Her care could be safely postponed to make room for those with more advanced disease.

A frail 70-year-old woman with Stage I breast cancer from Atlanta would be in greater danger of dying of COVID-19 than her cancer within the next five years, since Georgia has seen a recent surge in coronavirus cases. Her care could also be safely postponed to reduce her chances of coming into contact with patients, doctors or nurses who might have COVID-19.

On the flip side, a 30-year-old woman with Stage IV breast cancer from Atlanta would be at greater risk of dying due to her cancer than COVID-19 within the next five years. Her care would probably be expedited to give her the best possible shot at survival.

OncCOVID was developed as an alternative to the three-tiered model of cancer care that medical centers and hospital systems in the United States have adopted in response to the pandemic, said Daniel Spratt, MD, an associate professor of radiation oncology at the University of Michigan Rogel Cancer Center and a member of the research team, in an interview with Healio.

“Tier one is basically an emergency; you need to treat them,” he said. “At tier two, you can delay a little bit. At tier three, we need to wait until the pandemic is over. The questions then become, ‘Who goes into those tiers and who decides this?’ ‘Where are the data to guide the decision?’ There really aren’t any. The big problem is that it’s subjective.”

OncCOVID’s major advantage over the three-tiered system is, Spratt told Cancer Health via email, its comparative objectivity. While “all models have inherent limitations,” he acknowledged, OncCOVID “is a large improvement over what has been done during this pandemic” because it relies on statistical analysis rather than human judgment to assess medical risk.

People from some 30 countries have accessed the app since it became publicly available several months ago, Spratt said. Spratt himself has incorporated it into his clinical practice with stellar results.

“Some of my patients are very afraid to come in for treatment,” he told Healio. “With this, I can say, ‘Look, you have a 0.05% chance of dying of the coronavirus from getting treatment, but you have a 10% chance of dying of your cancer if we continue to delay treatment.’ Some patients, conversely, are afraid to delay their treatment. So now, in either circumstance, I can give patients information to clarify why that treatment plan is safest for them.”

COVID-19, which has been identified as a causative factor in the deaths of over 182,149 Americans as of this writing, has dealt the cancer care industry a serious blow. A June survey by the American Cancer Society Cancer Action Network found that one in five cancer patients and survivors were concerned that their cancer could be spreading or returning as a result of treatment delays.

To read more about how the pandemic has affected cancer diagnosis and treatment, click here, here and here.

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