COVID-19 Leads to Drop in Cancer Diagnosis

Delays in screening, diagnosis and treatment could lead to poorer outcomes.

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Screenings have declined steeply and fewer people are being diagnosed with cancer since the start of the COVID-19 epidemic in the United States, according to an analysis by a national laboratory testing company. This is expected to lead to delayed treatment initiation and worse outcomes.

Harvey Kaufman, MD, senior medical director of Quest Diagnostics, and colleagues analyzed weekly changes in the number of patients with newly identified cancer during the height of the spring COVID-19 outbreak, in which New York and other states in the northeast were hardest hit.

The outbreak prompted shutdowns in many states, with people being advised to stay home—and in particular to stay away from health care settings to avoid exposure to the new coronavirus. What's more, medical centers curtailed other services to devote staff and resources to COVID-19 care, and many doctors temporarily closed their offices.

This led to a sharp reduction in the number of people receiving medical care unrelated to COVID-19. An analysis by the electronic medical records vendor Epic, for example, found that screenings for breast, cervical and colon cancer dropped by around 90% after the declaration of the COVID-19 national emergency. Between March 15 and June 16, an estimated 285,000 breast cancer screenings, 95,000 colon cancer screenings and 40,000 cervical exams were missed. Things have since picked up but are still not back to normal.

A follow-up analysis showed that in mid-June, screening rates for the three cancers were still down by about a third.

Kaufman's team conducted a cross-sectional study of people who received tests for any reason at Quest's labs across the United States from the first week of January 2019 through April 18, 2020. The analysis looked at patients with newly diagnosed breast, colorectal, lung, pancreatic, stomach or esophageal cancer as identified by standard diagnostic codes.

As described in a research letter in JAMA Network Open, the analysis included 258,598 people during the baseline period before the COVID-19 outbreak and 20,180 people during the COVID-19

period from March 1 to April 18. Overall, three quarters were women and the average age was 66.

During the pandemic period, the number of newly identified patients with any of the six cancers fell by 46%, from 4,310 to 2,310 per week. The researchers saw significant declines in all these cancer types, ranging from a 25% decrease for pancreatic cancer (from 271 to 204 newly identified patients per week) to a 52% drop for breast cancer (from 2,208 to 1064 per week).

“Our results indicate a significant decline in newly identified patients with six common types of cancer, mirroring findings from other countries,” the study authors wrote. They noted that the Netherlands Cancer Registry saw as much as a 40% decline in weekly cancer incidence, while the United Kingdom experienced about a 75% decline in referrals for suspected cancer since COVID-19 restrictions were implemented.

In a recent editorial in Science magazine, National Cancer Institute director Norman Sharpless, MD, estimated that reduced screening for six months due to COVID-19 and the resulting delays in diagnosis and treatment could lead to nearly 10,000 extra deaths from breast and colorectal cancer alone over the next decade. U.K. researchers estimated that the COVID-19 crisis could result in 6,270 excess deaths over one year in England and 33,890 excess deaths in the United States.

“Cancers being missed now will still come to light eventually but at a later stage...and with worse prognoses,” Sharpless wrote. “Clearly, postponing procedures and deferring care as a result of the pandemic was prudent at one time, but the spread, duration and future peaks of COVID-19 remain unclear. However, ignoring life-threatening non-COVID-19 conditions such as cancer for too long may turn one public health crisis into many others.”

Kaufman and colleagues made the same point. “While residents have taken to social distancing, cancer does not pause,” they wrote. “The delay in diagnosis will likely lead to presentation at more advanced stages and poorer clinical outcomes.” They stressed the need for urgent planning to address the consequences of delayed diagnoses, including expanded telehealth offerings.

Click here to read the research letter in JAMA Network Open.

Click here to see all Cancer Health’s coverage of the new coronavirus and COVID-19.
