Cancer Survivors May Not Be at Greater Risk for COVID Complications

People diagnosed with cancer more than a year ago and those who were not currently on treatment did not have a higher risk of hospitalization or death.

May 12, 2022 By Liz Highleyman

While people recently diagnosed with cancer and those currently receiving treatment are at higher risk for adverse outcomes due to COVID-19, this does not appear to be the case for those diagnosed more than a year ago or those not currently on treatment, according to a study published in PLOS ONE.

Over the course of the pandemic, people with cancer have heard conflicting messages about their risk for COVID complications. Research during the past two years has shown that, overall, people with cancer are at greater risk for severe illness and death. What's more, they may not be fully protected by COVID vaccines. For example, a recent meta-analysis of 81 studies that together included more than 61,500 cancer patients with SARS-CoV-2 (the coronavirus that causes COVID) found that people with cancer were 69% more likely to die of COVID than people of the same age and sex without cancer.

But this risk is not evenly distributed. People with blood cancers and lung cancer have a greater likelihood of severe COVID outcomes. And while most people with solid tumors respond well to the vaccines, those with blood cancers do not fare as well. This is also the case for people who use medications that damage antibody-producing B cells and those who undergo stem cell transplants or CAR-T therapy, which can temporarily wipe out the immune system.

Now, a new study shows that cancer survivors, cancer patients who were not recently diagnosed and those who are not on active treatment are not at higher risk for severe outcomes compared with the general population.

Youngran Kim, PhD, of UTHealth Houston, and colleagues used electronic health records to assess the association between COVID outcomes and cancer. The analysis included records for some 300,000 adults with laboratory-confirmed COVID-19 seen at nearly 8,000 hospitals and clinics in the United States during the first year of the pandemic (June 1 to December 31, 2020). The researchers looked at outcomes including hospitalization, intensive care unit (ICU) admission, ventilator use and 30-day all-cause mortality.

Within this group, 18,460 people had at least one cancer diagnosis, including 10,426 with newly diagnosed cancer within one year of getting COVID and 8,034 with a prior history of cancer. As expected, people with a cancer diagnosis were older, had more chronic health conditions and were more likely to have Medicare coverage. They were also more likely to be male and white.

Overall, cancer patients had a higher risk for hospitalization and 30-day mortality than people without cancer, but there were no significant differences in ICU admission or ventilator use. Breaking this down, the researchers found that having a recent cancer diagnosis was associated with a greater risk for worse COVID-19 outcomes. This was particularly notable for people with recent blood, liver or lung cancer and those with recent metastatic (Stage IV) cancer. Among patients with a recent cancer diagnosis, those who received chemotherapy or radiation within the past three months had a higher risk of death.

Familiar risk factors for poor COVID outcomes in the population at large also played a role. People who were older, Black people and people who lived in the South were more likely to die, as were those with comorbidities such as cardiovascular disease, diabetes and liver or kidney disease.

But the good news is that people who were diagnosed with cancer more than one year before they got COVID and those who were not currently on active treatment did not have a higher risk of hospitalization or death.

“We found that recent cancer diagnoses were associated with a 17% increased risk for death and 10% increased risk for hospitalization,” Kim said in a press release. “However, a history of cancer more than one year before COVID-19 diagnosis was not significantly associated with increased mortality or hospitalization. Our study also confirmed other risk factors and racial disparities in COVID-19 outcomes among COVID-19 patients with cancer.”

A limitation of this analysis is that it was conducted during the first wave of COVID, before vaccines were available, and it did not include people with more recent SARS-CoV-2 variants, such as delta or omicron.

“In this particular study, we not only confirmed general findings about worse COVID-19 outcomes for cancer patients, but elaborated on subgroups of cancer patients that were not overly impacted,” said senior study author Guo-Qiang Zhang, PhD, also of UTHealth. “This is an important finding for the health care system as they intervene based on the appropriate risk assessment, and for cancer survivors to understand their specific risks associated with COVID-19. As the pandemic evolves, however, we may need to revisit this topic at a future time.”

People with recently diagnosed cancer and those currently receiving treatment can take steps to reduce their risk, including getting the recommended COVID vaccines and boosters and asking their household members and to stay up to date with their vaccines too. Experts now advise that immunocompromised people should receive three doses of the Pfizer-BioNTech or Moderna vaccine as a primary series plus two booster shots. For those who still don’t respond well to vaccination, pre-exposure prophylaxis using monoclonal antibodies (Evusheld) offers protection for six months.

Click here to read the study abstract.

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