COVID-19 and Cancer Treatment

Studies ask whether cancer treatment, such as chemotherapy and immunotherapy, can lead to more severe COVID-19.

December 14, 2020 By Liz Highleyman

People with cancer and their doctors have been concerned that cancer treatment, especially chemotherapy, could raise the risk of more severe COVID-19. But recent research helps allay such fears.

One study reviewed outcomes among 309 patients with cancer and COVID-19 treated at Memorial Sloan Kettering Cancer Center in New York City. During follow-up, 48% were hospitalized, and 10% died. As seen in other studies, people with blood cancers and lung cancer fared worse than those with other malignancies. People in remission appeared to have better outcomes than those with active disease. Receiving chemotherapy within the three months prior to a COVID-19 diagnosis was not associated with a higher likelihood of intensive care admission or death.

Whether immunotherapy affects COVID-19 outcomes is less clear, as study results are mixed. Some severe complications of COVID-19 are due to an overactive immune response. Checkpoint inhibitors that boost T-cell activity could potentially help the body fight the coronavirus—or they could make matters worse.

Another team at Memorial Sloan Kettering analyzed data from 423 cancer patients diagnosed with symptomatic COVID-19; 40% were hospitalized, 20% were admitted to intensive care and 12% died. Treatment with checkpoint inhibitors was associated with about a threefold higher likelihood of hospitalization and severe disease, largely driven by people with lung cancer. Other studies, however, have not seen such a link. Again, receiving chemotherapy within the past month was not associated with worse outcomes, nor was cancer surgery.

“If you’re an oncologist and you’re trying to figure out whether to give patients chemotherapy or if you’re a patient who needs treatment, these findings should be very reassuring,” says study coauthor Ying Taur, MD, MPH.

© 2026 Smart + Strong All Rights Reserved.