

Immunotherapy safe for patients with COVID-19, cancer

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Trisha Wise-Draper, PhD, an associate professor of medicine, Division of Hematology Oncology, at the UC College of Medicine, UC Health oncologist and medical director of the UC Cancer Center Clinical Trials Office. Credit: Colleen Kelley/UC Creative + Brand

Preliminary data from researchers at the University of Cincinnati Cancer

Center show that immunotherapy doesn't necessarily worsen complications for patients with both COVID-19 and cancer.

This data is being presented by Layne Weatherford, Ph.D., UC postdoctoral fellow, at the American Association for Cancer Research Virtual Meeting: COVID-19 and Cancer, Monday, July 20.

Weatherford works in the lab of Trisha Wise-Draper, Ph.D., an associate professor of medicine, Division of Hematology Oncology, at the UC College of Medicine, UC Health oncologist and medical director of the UC Cancer Center Clinical Trials Office.

"Many COVID-19 complications result from an overactive immune response, leading to an increased production of proteins called cytokines," Weatherford says. "Increased production of these proteins can cause issues like respiratory failure. Patients with [cancer](#) are more susceptible to COVID-19 infection as well as severe complications from it.

"Many patients with cancer are treated with [immunotherapy](#), which activates the [immune system](#) against cancer to destroy it. In patients with both COVID-19 and cancer, our team thought that immunotherapy might increase the immune system response, which could already be overactive because of the COVID-19 infection."

Wise-Draper says researchers thought treating COVID-19 patients with cancer immunotherapy might result in worsening patients' health and overall outcomes.

"We are continuing to investigate whether immunotherapy causes an increased production of these proteins by immune cells from COVID-19 patients, but our initial findings are showing that immunotherapy is not significantly impacting it," she adds.

Researchers are conducting this study using blood samples from patients with cancer taken from the UC COVID-19 biorepository, which Kris Hudock, MD, assistant professor in the Division of Pulmonary, Critical Care and Sleep Medicine at the UC College of Medicine, oversees.

"We are examining how immune checkpoint inhibitors, drugs that allow immune cells to respond more strongly, in combination with other treatments, like chemotherapy or radiation, affect the immune cells of COVID-19 patients and patients with both COVID-19 and cancer," she says.

She and Weatherford add that their preliminary data show that an anti-diabetic drug, metformin, can reduce production of these proteins by [immune cells](#) of COVID-19 patients.

"These are promising, initial findings," Wise-Draper says. "Additional research is needed, but our results show that we might be able to treat COVID-19 complications with metformin or a similar drug one day."

Provided by University of Cincinnati

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