

# **New study involving nearly 185,000 patients recommends strengthening immunity against COVID-19 in people with cancer**

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Researchers from the Institut d'Investigació en Atenció Primària Jordi Gol (IDIAPJGol) and the Barcelona Institute for Global Health (ISGlobal) have led a study on the effectiveness of vaccines against

COVID-19 among cancer patients in Catalonia. The research, published in the journal *Nature Communications*, recommends administering additional doses of the vaccine among this risk population.

Cancer patients are at increased risk of death from COVID-19, especially those who have [lung cancer](#), hematological malignancies or are undergoing systemic treatment, such as chemotherapy.

The participation of patients with active cancer in [clinical trials](#) that have been carried out to test the effectiveness of vaccines against COVID-19 has been very limited, so it has not been possible to know exactly the effectiveness of immunization against the SARS-CoV-2 virus among this risk group. However, prospective data from several studies show that cancer patients may develop fewer protective antibodies to COVID-19 virus than the general population, especially after receiving a single dose of the vaccine.

## **Real world data**

The study confirms these results, based on the analysis of massive data obtained from clinical registries. This is the most comprehensive work yet on this issue and the first of this kind with information from real-world data, providing a more realistic view of how vaccines are working in everyday clinical practice among people with cancer.

The researchers have analyzed the data of 184,744 patients with neoplasia included in the [information system](#) for the development of research in [primary care](#) (SIDIAP), the database that includes people treated at the first level of care in Catalonia. Half of the individuals included in the study (92,372) had received at least the first complete immunization (two inoculations of the vaccine) and the other half (92,372) had not been vaccinated at the time of the work.

Researchers have compared the mortality data and serious complications derived from COVID-19 among the immunized group after receiving the first and second doses of the vaccine with those of the unvaccinated group. Next, the researchers compared the results of the members of the experimental group after having received the booster dose of the [vaccine](#) (which was 54,267 patients) with an equivalent sample of people in the control group who had only received the first two inoculations.

The results of the study show that the rate of mortality and serious complications among cancer patients not vaccinated against COVID-19 is twice that of those who have received the full first dose. However, this difference is smaller than the observed data among the general population immunized against SARS-CoV-2 and the non-immunized population.

"Our results clearly demonstrate that vaccination against COVID-19 significantly reduces mortality and serious complications among cancer patients, especially those who have received the booster dose," said ISGlobal researcher Otavio Ranzani, who supervised the study together with Talita Duarte-Sallés from IDIAPJGol.

For her part, this researcher explained that "this work provides essential information to understand the impact of vaccination against COVID-19 on [cancer patients](#), and helps to design public health policies that protect this vulnerable population."

**More information:** Lazar, F., Effectiveness of COVID-19 Vaccines Against Severe COVID-19 Among Patients with Cancer in Catalonia, Spain, *Nature Communications* (2024). [DOI: 10.1038/s41467-024-49285-y](#)

Provided by Barcelona Institute for Global Health

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