People With Cancer Should Receive COVID-19 Vaccine, Experts Say

The coronavirus vaccines are safe and should be effective even for people with advanced cancer.

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People living with cancer—including those undergoing treatment—should receive COVID-19 vaccines as soon as they are available, according to new guidelines from the National Comprehensive Cancer Network (NCCN).

While people with some types of cancer and those receiving certain cancer treatments may not respond quite as well, the vaccines should still provide partial protection, which is especially important because some cancer patients are at higher risk for COVID-19 complications.

"Right now, there is urgent need and limited data," said committee coleader Steve Pergam, MD, MPH, of the Seattle Cancer Care Alliance and the Fred Hutchinson Cancer Research Center, headquarters of the National Institutes of Health's COVID-19 Prevention Network. "Our number one goal is helping to get the vaccine to as many people as we can. That means following existing national and regional directions for prioritizing people who are more likely to face death or severe illness from COVID-19. The evidence we have shows that people receiving active cancer treatment are at greater risk for worse outcomes from COVID-19, particularly if they are older and have additional comorbidities, like immunosuppression."

Much remains to be learned about COVID-19 in people with cancer. Studies have shown that people with blood cancers, like leukemia or lymphoma, and lung cancer are at greater risk for severe COVID-19 and death, but those with other types, such as breast or lung cancer, do not appear to be at higher risk. Patients with active or advanced cancer are likely to fare worse. Although studies of the effects of cancer treatment on COVID-19 outcomes have yielded conflicting results, therapies that cause immune suppression seem to lead to poorer outcomes.

Two mRNA vaccines from Pfizer/BioNTech and Moderna were authorized by the Food and Drug Administration in December. These vaccines were 95% and 94% effective for preventing symptomatic COVID-19 in Phase III clinical trials. Vaccine candidates from AstraZeneca, Johnson and Johnson and Novavax are also effective, especially for preventing severe disease, and are likely to receive emergency use authorization in the coming months. All the vaccines were shown to be safe.

A Centers for Disease Control and Prevention (CDC) advisory committee developed a vaccine prioritization plan that put health care workers and residents of long-term care facilities first in line, followed by people over age 75 and certain frontline essential workers. The CDC later expanded eligibility to include everyone over 65 and people with underlying health conditions—including cancer—that put them at risk for more severe COVID-19. But current supplies are nowhere near adequate to vaccinate everyone who's eligible.

The NCCN's COVID-19 Vaccine Committee, which includes top hematology and oncology experts in the areas of infectious diseases, vaccine development and delivery, medical ethics and health information technology, recommends that all people with cancer should get a vaccine. The committee also advises that caregivers and people living in the same household with cancer patients should also get vaccinated when they are eligible.

While clinical trials have shown that the vaccines are highly effective at reducing the risk of becoming ill with COVID-19, it is still not clear how well they prevent asymptomatic infection and transmission, so the committee emphasizes the importance of continuing to follow precautions such as wearing masks and social distancing.

Although people on cancer treatment were excluded from the COVID-19 vaccine trials, experts say there's no reason to think the vaccines won't be safe for this group. The currently authorized vaccines do not contain live virus and therefore cannot cause disease, even in immunocompromised people.

"The data we have on these vaccines shows they're remarkably safe in the general population based on the trials. Admittedly, very few patients with active cancer or in active therapy were included in the trials. But having gone through all the documentation for both of these vaccines, it looks remarkably safe," Gary Lyman, MD, of Fred Hutch, who helped start the COVID-19 and Cancer Consortium, told the Fred Hutch News Service. "I have no real concerns that there will be big surprises when it comes to safety for the cancer patient population. The risk to these patients from COVID is high, and the risks from the vaccines appear very low."

While the vaccines appear safe for people with cancer, some patients may not respond as well, particularly those whose cancer or treatment causes immune suppression. Some blood cancers affect B cells, the white blood cells that produce antibodies—a key player in vaccine response. Chemotherapy and radiation can deplete white blood cells, and people undergoing stem cell transplants or receiving CAR-T therapy have their own immune cells killed off with chemo or radiation to make room for the new cells.

The NCCN committee recommends that people receiving intensive chemotherapy for leukemia should wait to be vaccinated until their white blood cell count recovers. Stem cell transplant and CAR-T recipients should delay vaccination until three months after the procedure to improve the chances that the vaccine will produce a good immune response. People undergoing major surgery should wait at least a few days. But everyone else—including patients receiving chemotherapy for solid tumors, targeted therapy, immunotherapy or radiation therapy—should get a vaccine as soon

as they can.

If it is necessary to prioritize among people with cancer, the committee recommends moving those on active treatment (except those taking only hormone therapy), those who plan to start treatment soon and those who have recently finished treatment to the front of the line. Cancer patients with other risk factors, including older age and additional health conditions, should also be prioritized.

Finally, the guidance acknowledges the disparities and social inequities related to COVID-19—Black and Latino people are more likely to be exposed to the coronavirus and more likely to develop severe disease and die from it but are less likely to get vaccinated.

“One of our primary goals is reducing morbidity and mortality,” said Sirisha Narayana, MD, chair of the University of California at San Francisco Ethics Committee. “We also have to take social determinants of health into account and make special efforts for people in high-risk communities.”

“The medical community is rising to one of the biggest challenges we have ever faced,” added NCCN CEO Robert Carlson, MD. “The COVID-19 vaccines exemplify the heights of scientific achievement. Now we have to distribute them quickly, equitably, safely and efficiently, using clearly defined and transparent principles.”

Given their higher risk for COVID-19, the NCCN, the American Society of Clinical Oncology and other advocates are asking that people with cancer be given priority for vaccination.

“People with metastatic and active cancers die at a rate similar to people over age 75; if we die at the rate of 75-year-olds, we should be vaccinated with the 75-year-olds,” Kelly Shanahan, an advocate living with metastatic breast cancer, told Cancer Health. “Those of us with active and metastatic cancers don’t have the luxury of just staying home. We must get our treatments and scans and see our oncologists. Keep us out of the hospitals—and morgues—by prioritizing us for the COVID-19 vaccinations!”

Click here to read the full NCCN COVID-19 vaccine guidance.

Click here for more news about COVID-19.
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