COVID Protection

Extra vaccine doses, monoclonal antibodies and antivirals can help prevent severe illness.

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It's a difficult time in the COVID-19 pandemic for people with cancer. As much of society returns to normal, there have been conflicting messages about how much cancer patients are at risk, how well vaccines work for them and how they can best protect themselves.

Research over the past two years has shown that people with cancer are at greater risk for COVID complications, but this risk is not evenly distributed. People with certain blood cancers and those receiving immune-suppressing treatment are most prone to severe illness and inadequate vaccine protection.

Most people with solid tumors respond well to COVID vaccines, but those with blood cancers may not fare as well. This is also the case for people who use medications that damage antibody-producing B cells and those who receive stem cell transplants or CAR-T therapy that temporarily wipes out the immune system.

Sometimes, more shots can help. Studies have shown that many cancer patients who receive additional vaccine doses can produce more antibodies.

Experts now say that the initial vaccine series for immunocompromised people, including those undergoing cancer treatment, should be three doses of the Pfizer-BioNTech or Moderna vaccine. Last fall, the Centers for Disease Control and Prevention (CDC) recommended a booster—meaning a fourth dose after the initial series—for immunocompromised people. In March, the CDC added a second booster—a fifth shot—for this group.

But antibodies don't tell the whole story: T cells also play a role and can help prevent severe illness. An experimental vaccine dubbed CoVac-1, designed to induce broad and long-lasting T-cell immunity, may offer greater protection for immunocompromised people with impaired B-cell function.

Unfortunately, some people still are not fully protected even after multiple vaccine doses. For them, post-exposure prophylaxis (PEP) and pre-exposure prophylaxis (PrEP) using monoclonal antibodies could offer a lifeline. Monoclonal antibodies are manufactured proteins that mimic the activity of antibodies that the immune system is unable to produce on its own.

The Food and Drug Administration (FDA) has authorized Evusheld, a combination of two antibodies (tixagevimab plus cilgavimab) administered every six months prior to exposure, to prevent COVID in immunocompromised people. A single dose of Evusheld reduces the risk of symptomatic disease by about 80%. Other monoclonal antibodies are used to prevent COVID after close contact with someone who has the coronavirus.

For people who have already contracted the virus, antiviral treatment is the next line of defense. In December, the FDA authorized Paxlovid (nirmatrelvir plus ritonavir) and molnupiravir (Lagevrio) for people at high risk of progressing to severe COVID. Both pills must be taken within five days of symptom onset. Paxlovid reduces the risk of hospitalization or death by nearly 90%, while molnupiravir reduces the risk by about 30%.

Monoclonal antibodies and antivirals are now widely available, but they can still be hard to obtain. Ask your doctor whether you could benefit from Evusheld for COVID prevention and develop a plan for how to get antivirals if you need them. Ask your household members and caregivers to stay up to date with their vaccines. And remember that a well-fitted N95 mask can protect you even if others aren’t wearing them.
