

Transplant patients should get vaccinated for COVID-19 early

Shots helpful even when given in the first 4 months after blood or marrow transplant

The largest study of its kind shows that vaccines for COVID-19 generate similar responses when administered within 4 months as compared to 4-12 months after transplant or cellular therapies.

Blood or marrow transplant (BMT) and chimeric antigen receptor T-cell therapy (CAR-Ts) can cure blood cancers and disorders like leukemia or sickle cell disease. However, the treatments used with these therapies, and sometimes the therapies themselves, weaken the immune system for a while. Because of this, people receiving these treatments have increased risk for infections and serious complications from those infections.

COVID-19 can be a dangerous infection, particularly in people who recently got BMT or CAR-T therapy. Revaccination after BMT is important to boost immunity. Similarly, for a variety of infections, vaccines given before BMT (like childhood vaccines against measles) have to be repeated.

To find out the best way to protect patients from COVID-19, researchers studied almost 500 people. Everyone in the study had BMT or CAR-T therapy within the past year. They were divided into 2 groups, by when they got vaccinated: either less than 4 months after therapy or 4-12 months after therapy. Participants received up to 4 COVID vaccines and blood tests before and after each dose during the study period.

The study showed the COVID vaccines lead to similar immune responses in both groups of participants. This was true even if people were taking medicines that block the immune system. These medicines prevent a serious effect of BMT called graft-versus-host disease (GVHD).

The study also showed that immune response improved after booster shots. And very few people had serious reactions to the vaccines.

Researchers said **people should get vaccinated for COVID-19 both before therapy and again at 3-4 months after BMT or CAR-T therapy**. Everyone should get their booster shots. Ask your doctor what's best for you.

Learn more about

- [COVID-19 and BMT](#) at NMDP.org
- [Clinical trials for vaccines](#) at CTsearchsupport.org
- [More study summaries](#) at CIBMTR.org

This plain-language summary (PLS) was written by Jennifer Motl at Medical College of Wisconsin and reviewed by an author of the full article. © 2024 by CIBMTR, license CC BY-SA 4.0.



Source

Hill JA, Martens MJ, Young JH, et al. [SARS-CoV-2 vaccination in the first year after hematopoietic cell transplant or chimeric antigen receptor T cell therapy: A prospective, multicenter, observational study](#). *Clinical Infectious Diseases*. 2024. Epub 2024/05/27. PubMed PMID: 38801746. doi: 10.1093/cid/ciae291.

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Clinical Trial IDs

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