

COVID-19 Vaccination in the First Year after Allogeneic Hematopoietic Cell Transplantation: A Prospective, Multi-Center, Observational Study

A CIBMTR® (Center for International Blood and Marrow Transplant Research®) and Blood & Marrow Transplant Clinical Trials Network (BMT CTN) co-sponsored study

Study Details:

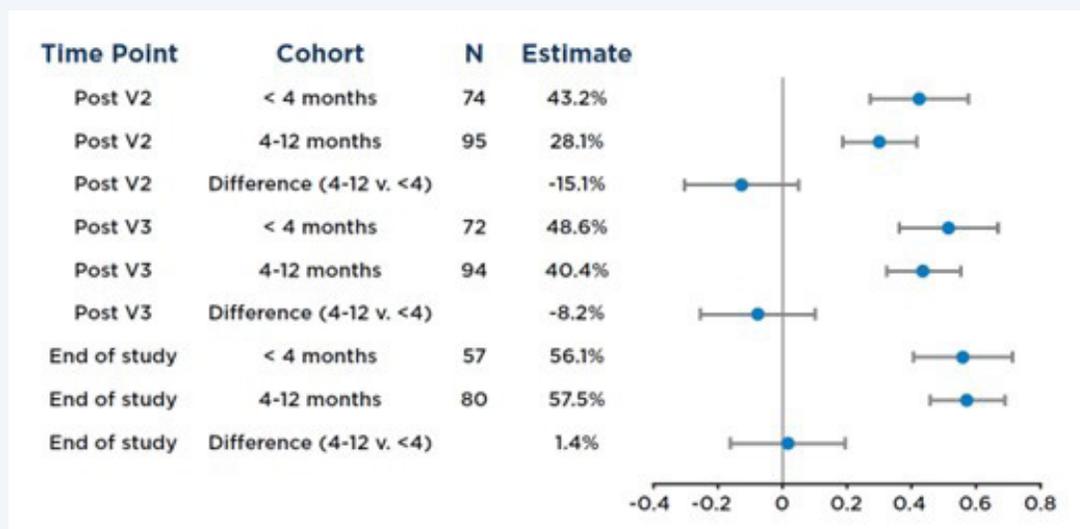
This prospective study aimed to investigate the efficacy and timing of the SARS-CoV-2 (COVID-19) vaccination in patients within the first year following allogeneic hematopoietic cell transplantation (alloHCT).

Post-alloHCT patients (n=175) from 22 United States centers were examined from April – November 2021. Most received the vaccination 4 – 12 months post-transplant (57%) compared to those within 4 months of transplant (46%).

Results at a Glance:

- Immune responses to the COVID-19 vaccine were similar regardless of vaccination timing in alloHCT recipients within the first year post-transplant.
- A specific level of anti-Spike protein IgG antibodies (titers ≥ 2403 U/mL) was associated with an effective immune response mirroring what's observed in non-immunocompromised vaccine recipients.
- Most participants achieving this antibody level also exhibited SARS-CoV-2-specific cellular immunity.

Figure: Proportion of Recipients Who Had a Positive Antibody Response



Clinical Impact:

It's recommended to begin COVID-19 vaccination 3 months after alloHCT. COVID-19 vaccination has shown to be safe and effective within the first year after alloHCT, regardless of timing. Despite the vaccine's safety and efficacy post-transplant, the immune response was diminished compared to non-immunocompromised individuals, underlining the need for extra precautions.

Read the publication in *eClinical Medicine* (DOI:[10.1016/j.eclinm.2023.101983](https://doi.org/10.1016/j.eclinm.2023.101983)).

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