

Antibody response to SARS-CoV-2 wanes among dialysis patients

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(HealthDay)—For persons receiving dialysis, the antibody response to

severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) wanes through five to six months and is associated with a risk for breakthrough infection, according to a study published online Dec. 14 in the *Annals of Internal Medicine*.

Shuchi Anand, M.D., from Stanford University in Palo Alto, California, and colleagues determined longitudinal antibody-based response after SARS-CoV-2 vaccination among 4,791 patients receiving dialysis. Antibodies to the receptor-binding domain (RBD) of SARS-CoV-2 were measured from plasma. Each breakthrough case was matched to five control patients to evaluate whether peak or prebreakthrough RBD values were associated with breakthrough [infection](#) in a nested case-control analysis.

Of the 4,791 patients, 2,563 were vaccinated as of Sept. 14, 2021. The researchers found that among the vaccinated patients, the estimated proportion with an undetectable RBD response increased from 6.6 to 20.2 percent at 14 to 30 days after vaccination and five to six months after vaccination, respectively. There was a decrease in the estimated median index values, from 91.9 at 14 to 30 days after vaccination to 8.4 at five to six months after vaccination. Fifty-six [patients](#) had breakthrough infections, with samples collected a median of 21 days before infection. Prebreakthrough index RBD values of

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