

## News

# One Covaxin shot generates good antibody response in those infected: Study

Monika Yadav New Delhi | Updated on August 28, 2021

According to the ICMR study, the antibody response

was the same as that generated in un-infected candidates who had received both doses

People who have had Covid-19 infection are able to generate the same level of antibodies with a single dose of Covaxin as those with both the doses but un-infected, a recent study by the Indian Council of Medical Research has shown.

The study was done on 114 vaccine recipients, who were mainly healthcare and frontline workers, with a mean age of 35 years, and 62 per cent being male. Of these, 30 had had confirmed SARS-CoV-2 infection. For the antibody measurement, blood samples were collected on Day 0 (before vaccination), after 28 days (after first dose) and after 56 days (after both the

doses). These samples were sent to the immunology laboratory of ICMR's National Institute for Research in Tuberculosis, Chennai, for analysis.

“Overall, a good vaccine-induced antibody response was seen in SAR-CoV-2-infected individuals, except in two, who received a single dose of BBV152 vaccine that was similar to antibody responses seen after a two-dose vaccination course administered to infection-naive individuals,” the study said.

“Our results on a varied group of healthcare professionals and frontline workers lend support to previous studies that increased levels of SARS-CoV-2 binding and neutralising antibodies are present after a single vaccine dose in previously infected individuals and are comparable to the levels seen after two doses in those without prior infection,” it added.

Lokesh Sharma, a senior scientist at ICMR, told *BusinessLine* that it was a pilot done on a small sample set. He said that if it's proven for a large population size, then the problem of vaccine supply will be resolved to a large extent.

“The study was done on a small sample in Chennai. If it is done across 15-16 States and the result is the same, then the problem of vaccine supply can be addressed to a great extent as then those with prior infection would need only one dose, and the remaining can be administered to those who need them more,” Sharma said.

## **If previously COVID-19 infected, single Covaxin dose draws same antibody response as two doses: ICMR study**

India's first indigenous COVID-19 vaccine Covaxin, codenamed BBV152, was approved by the government for emergency use in January

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A single dose of Bharat Biotech's [Covaxin](#) in previously [COVID-19](#)-infected individuals elicits a similar antibody response as obtained with two doses of the vaccine in those without a previous history of the disease, according to an ICMR study.

The study was published in the Indian Journal of Medical Research on Saturday.

“If our preliminary findings are confirmed in large population studies, a single dose of BBV152 vaccine may be recommended to previously confirmed SARS-CoV-2 infected individuals so that the naive individuals could attain the larger benefit of a limited vaccine supply,” it said.

India’s first indigenous COVID-19 vaccine Covaxin, codenamed BBV152, was approved by the government for emergency use in January. Two doses are given with a gap of four to six weeks.

The study was undertaken to examine SARS-CoV-2–specific antibody responses after day zero (baseline, before vaccination), day 28 plus/minus two days post-first dose (month 1) and day 56 plus/minus two days post-first dose (month 2) of BBV152 in a group of healthcare professionals as well as frontline workers.

The antibody response of individuals with confirmed pre-vaccination SARSCoV-2 infection was compared with those individuals without prior evidence of infection.

As a part of the study, blood samples were collected from 114 healthcare professionals and frontline workers who received Covaxin at vaccination centres in Chennai from February to May 2021.

“Overall, good vaccine-induced antibody responses were seen in prior SARS-CoV-2–infected individuals, except in two, who received a single dose of BBV152 vaccine that was similar to antibody responses seen after a two-dose vaccination course administered to infection-naive individuals,” the study stated.

“Our results in a varied group of healthcare professionals and frontline workers lend support to the previous studies (albeit mainly focused on mRNA vaccines) that increased levels of SARS-CoV-2 binding and neutralizing antibodies are present after a single vaccine dose in previously infected individuals and are comparable to the levels seen after two doses in those without prior infection,” it added.

