# Interim trial data shows low effectiveness for CureVac shot

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This Jan. 7, 2021, file photo, shows the Curevac company headquarters in Tuebingen, Germany. German vaccine maker CureVac said Wednesday, June 16, 2021, that interim data from late-stage testing of its coronavirus shot show a comparatively low effectiveness in protecting people against COVID-19. Credit: Sebastian Gollnow/dpa via AP, File

German vaccine maker CureVac said Wednesday that interim data from late-stage testing of its coronavirus shot show a comparatively low effectiveness in protecting people against COVID-19.

The results appear to be a significant setback for CureVac's efforts to develop a coronavirus vaccine, and the company's stock value tumbled in after-hours trading.

While not all the data from its trial involving 40,000 participants in Latin America and Europe have been assessed yet, the company said interim results show the vaccine has an efficacy of 47% against COVID-19 disease of any severity.

This did not meet what the company said were its "prespecified statistical success criteria," though it didn't state what those were.

The World Health Organization has said vaccines with an efficacy above 50% are worth using, though many of those already approved have a far higher rate.

CureVac said that the study was hampered by the broad range of variants found among the COVID-19 cases reviewed in the trial and that final results may still change.

"While we were hoping for a stronger interim outcome, we recognize that demonstrating high efficacy in this unprecedented broad diversity of variants is challenging," its chief executive, Franz-Werner Haas, was quoted as saying.

Haas said CureVac would continue to work on a final analysis and "the overall vaccine efficacy may change."

The company said it has sent the data to the European Medicines Agency, which is conducting a rolling revue of the vaccine.

"The study is continuing to the final analysis and the totality of the data will be assessed for the most appropriate regulatory pathway," CureVac said.

Outside experts called the data so far disappointing, but cautioned against comparing it directly with other shots already authorized for use.

Deborah Fuller, a professor of microbiology and vaccine specialist at the University of Washington School of Medicine, said CureVac was dealing with "quite a different environment" than some of its rivals who had tested their shots when the original variant was still dominant.

CureVac's trials took place in 10 different countries, she noted: "The more countries you're testing in, the more variants you have to test against."

Another issue could be the mRNA technology used in the CureVac shot, which is slightly different to that employed in the BioNTech-Pfizer and Moderna vaccines, said Mark Slifka, a professor of microbiology and immunology at Oregon Health and Science University.

CureVac uses unmodified mRNA, which may trigger a different immune response in the body that affects the efficacy, he said.

"It could be the variants, it could be the type of mRNA, or it could be a combination of all of the above," said Slifka.

Haas, the chief executive, said the large number of variants CureVac encountered in its trial—with only a single case of COVID-19 attributable to the original variant—"underlines the importance of developing next-generation vaccines as new virus variants continue to emerge."