

# Study finds nirmatrelvir/ritonavir cuts COVID-19 complications in highest-risk patients

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For individuals with the highest risk for complications from COVID-19 infection, nirmatrelvir and ritonavir is associated with a reduced risk for COVID-19 hospitalization or death, according to a study published online Oct. 2 in *JAMA Network Open*.

Colin R. Dormuth, Sc.D., from the University of British Columbia in Vancouver, Canada, and colleagues examined the association of nirmatrelvir and ritonavir with prevention of death or [hospital admission](#) in a study of adult patients in British Columbia. Patients were eligible if they belonged to one of four groups of higher-risk individuals who received priority for COVID-19 vaccination.

Two groups included clinically extremely vulnerable (CEV) people who were severely (CEV1) or moderately immunocompromised (CEV2). CEV3 individuals were not immunocompromised but had [medical conditions](#) associated with a high risk for COVID-19 complications. The fourth group was added for those who were higher-risk but not in a CEV group, including those older than 70 years who were unvaccinated (expanded eligibility [EXEL]).

The study included 6,866 individuals. The researchers found that treatment with nirmatrelvir and ritonavir was associated with significant relative reductions in the primary outcome of [death](#) from any cause or emergency hospitalization with COVID-19 within 28 days in the CEV1 and CEV2 groups (risk difference, -2.5 and -1.7 percent, respectively) compared with unexposed controls. The risk difference was -1.3 percent in the CEV3 group, but was not statistically significant. Treatment was associated with an increased risk for the outcome in the EXEL group, but the findings were not statistically significant.

"Stratified analysis of individuals according to vulnerability to complications from COVID-19 is crucial to understanding which individuals should use nirmatrelvir and ritonavir," the authors write.

**More information:** Colin R. Dormuth et al, Nirmatrelvir-Ritonavir and COVID-19 Mortality and Hospitalization Among Patients With Vulnerability to COVID-19 Complications, *JAMA Network Open* (2023). DOI: [10.1001/jamanetworkopen.2023.36678](https://doi.org/10.1001/jamanetworkopen.2023.36678)

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