

# Study links low immunity to poor outcomes in patients with HIV who contract COVID-19

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Dima Dandachi, MD, assistant professor of clinical medicine at the University of Missouri School of Medicine, counsels a patient in her clinic. Dandachi was the principal investigator for the study. Credit: Justin Kelley

Clinical trials are testing whether medications that treat human

immunodeficiency virus (HIV) can also treat COVID-19, leading some patients with HIV to believe they might be protected against the coronavirus. But a researcher from the MU School of Medicine not only found patients with HIV are susceptible to the virus, she also discovered which factors increased the risk of hospitalization and death.

Principal investigator Dima Dandachi, MD, assistant professor of clinical medicine, examined data that included 286 [adult patients](#) with HIV who were diagnosed with COVID-19 across 36 institutions in 21 states. Within 30 days of COVID-19 diagnosis, 57% of the patients required hospitalization, 16% required ICU admission and 9% did not survive. In the study, more than 94% of patients were actively taking HIV medication.

"We were able to show that patients with HIV who are actively taking their medication are just as susceptible to COVID-19 as the general public," Dandachi said. "And those with low immunity uncontrolled HIV or newly diagnosed HIV are at a higher risk of hospitalization or death. The key message for these patients is to take precautions against contracting the virus while ensuring they are compliant with their HIV medications to raise their immune cell count as high as possible."

Dandachi and her team of researchers found people with HIV older than 60 and those with chronic health issues also had a much higher risk of being hospitalized or dying from COVID-19.

"The medications that prolong the lives of patients with HIV have improved life expectancy, but now we are seeing these patients develop other [chronic conditions](#) such as obesity, diabetes and [heart disease](#) that we didn't see 15 years ago," Dandachi said. "And when we looked at the data from this study, we found that [lung disease](#), kidney disease, hypertension and older age were associated with higher hospitalization rates, higher ICU admissions and increased mortality from COVID-19."

As a researcher-clinician who treats patients with HIV, Dandachi will use this study to counsel her patients to best protect themselves against COVID-19 while also using it as proof that this patient population should be among the first considered for protection once a vaccine is developed.

"When we have vaccines, our goal is to identify the most vulnerable populations," Dandachi said. "Patients with HIV should be a priority target when we are looking at any measure that could improve outcomes for [patients](#) at high risk for complications with COVID-19."

**More information:** Dima Dandachi et al, Characteristics, Comorbidities, and Outcomes in a Multicenter Registry of Patients with HIV and Coronavirus Disease-19, *Clinical Infectious Diseases* (2020).  
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