

# COVID-19 Outcome

A comparison of excess deaths between populations suggests that active users of the VA health system had similar relative increases in mortality compared with the general US population during the first 10 months of the COVID-19 pandemic <sup>1)</sup>.

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In [Tehran](#), a study revealed a clear disparity in the health outcome of patients infected with COVID-19 between urban and sub-urban areas <sup>2)</sup>.

The possible risk factors that lead to death in critical inpatients with [coronavirus disease 2019 \(COVID-19\)](#) are not yet fully understood.

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The COVID-19 pandemic affected the [lifestyle](#), [mood](#), and [chronic diseases](#) management among community-dwelling older adults. Supportive measures and interventions need to be tailored to older adults living in the community <sup>3)</sup>.

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Using two independent patient datasets, Jamshidi et al. designed a machine-learning-based model that could predict the risk of mortality from severe COVID-19 with high accuracy. The most decisive variables in the model have increased levels of [blood urea nitrogen](#) (BUN), lowered [albumin](#) levels, increased [creatinine](#), [INR](#), and [red cell distribution width](#) (RDW), along with [gender](#) and [age](#). Considering the importance of early [triage decisions](#), this model can be a useful tool in COVID-19 ICU decision-making <sup>4)</sup>.

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[Old age](#) (>70 years), [neutrophilia](#), [C-reactive protein](#) greater than 100 mg/L and [lactate dehydrogenase](#) over 300 U/L are high-risk factors for [mortality](#) in critical patients with [COVID-19](#). [Sinus tachycardia](#) and [ventricular arrhythmia](#) are independent [ECG](#) risk factors for [mortality](#) from COVID-19 <sup>5)</sup>.

While the disease itself is often mild, approximately 11% of cases require acute medical care, and this cohort quickly overwhelmed healthcare systems around the world <sup>6)</sup>.

In anticipation of such a demand, hospitals in many countries quickly stopped all nonurgent visits, procedures, and surgeries, freeing up beds, equipment, and workforce <sup>7)</sup>

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The [mortality](#) rate for [COVID-19](#) is not as high (approximately 2-3%), but its rapid propagation has resulted in the activation of [protocols](#) to stop its spread <sup>8)</sup>.

## Diabetes is a risk factor for the progression and prognosis of COVID-19

A total of 174 consecutive patients confirmed with COVID-19 were studied. Demographic data, medical history, symptoms and signs, laboratory findings, chest computed tomography (CT) as well as treatment measures were collected and analyzed.

Guo et al. found that COVID-19 patients without other comorbidities but with diabetes (n=24) were at higher risk of severe pneumonia, the release of tissue injury-related enzymes, excessive uncontrolled inflammation responses and hypercoagulable state associated with dysregulation of glucose metabolism. Furthermore, serum levels of inflammation-related biomarkers such as IL-6, C-reactive protein, serum ferritin, and coagulation index, D-dimer, were significantly higher ( $p < 0.01$ ) in diabetic patients compared with those without, suggesting that patients with diabetes are more susceptible to an inflammatory storm eventually leading to rapid deterioration of COVID-19.

Data support the notion that diabetes should be considered as a risk factor for a rapid progression and bad prognosis of COVID-19. More intensive attention should be paid to patients with diabetes, in case of rapid deterioration <sup>9)</sup>.

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Racism and discrimination in COVID-19 responses <sup>10)</sup>.

## References

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