

Sex differences play a role in COVID-19 outcomes

16 June 2021



Credit: CC0 Public Domain

In a study of more than 10,600 adult patients hospitalized with COVID-19, women had significantly lower odds than men of in-hospital mortality. They also had fewer admissions to the intensive care unit and less need for mechanical ventilation. Women also had significantly lower odds of major adverse events, including acute cardiac injury, acute kidney injury, and venous thromboembolism, according to an article in the peer-reviewed *Journal of Women's Health*.

"This comprehensive analysis is the largest study to date that directly assesses the impact of sex on COVID-19 outcomes," stated Rachel-Maria Brown, MD, Zucker School of Medicine at Hofstra/Northwell, and coauthors. "Our study strongly demonstrates female sex to be associated with lower odds of in-hospital outcomes, major adverse effects and all-cause mortality as compared to male sex after controlling for confounding variables." The authors propose some of the protective factors that may contribute to these findings.

In the accompanying editorial entitled "[Lessons](#)

[Learned from COVID-19 Sex Disparities](#)," Annabelle Santos Volgman, MD, Rush University Medical Center, and coauthors, suggest various mechanisms by which female sex may confer a protective advantage against COVID-19 infection. One advantage may be the extra X chromosome, which carries multiple genes responsible for innate and adaptive immunity.

Volgman and coauthors emphasize that "although [women](#) have less mortality risk with COVID-19, we need to exercise caution not to send a message to deliver subpar care to women with COVID-19 or decrease measures to prevent their infection. Our evolving knowledge should not reduce attention paid to women admitted for COVID-19."

More information: Astha Tejpal et al, Sex-Based Differences in COVID-19 Outcomes, *Journal of Women's Health* (2021). [DOI: 10.1089/jwh.2020.8974](#)

Provided by Mary Ann Liebert, Inc

APA citation: Sex differences play a role in COVID-19 outcomes (2021, June 16) retrieved 28 October 2022 from <https://medicalxpress.com/news/2021-06-sex-differences-role-covid-outcomes.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.