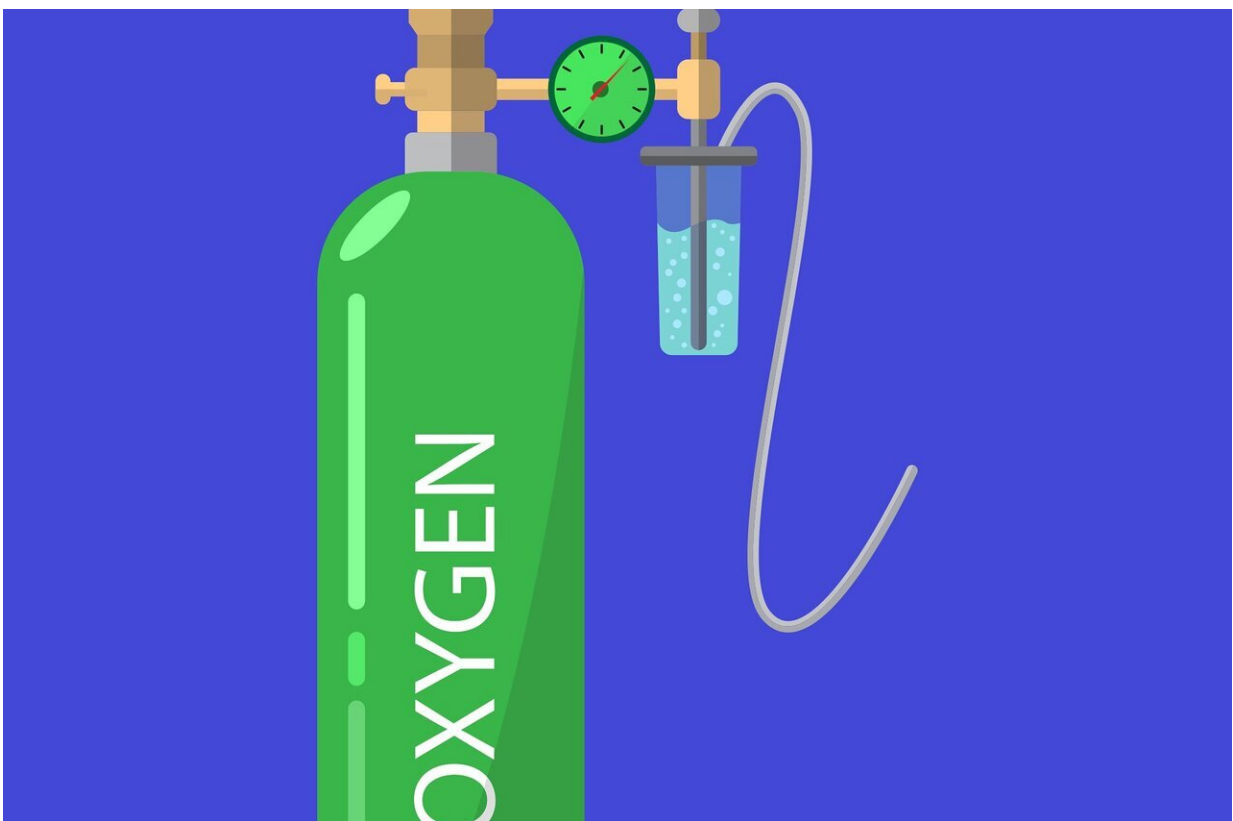


Pregnant women with COVID-19 face greater risk of hospitalization and ICU admission, strengthening case for vaccination

April 25 2022



Credit: Pixabay/CC0 Public Domain

New research to be presented at this year's European Congress of Clinical Microbiology & Infectious Diseases (ECCMID) in Lisbon,

Portugal (23-26 April), suggests that pregnant women are at markedly greater risk of severe illness if they contract COVID-19 than non-pregnant women of child-bearing age. The findings are independent of key risk factors including age, underlying illnesses, vaccination status, and infecting variant.

Importantly, the findings also indicate that women were half as likely to be hospitalized after just one dose of the COVID-19 vaccine, and even less likely with two or more doses. Similarly, women were more than half as likely to be admitted to the [intensive care unit](#) (ICU) when they had one dose of the vaccine, and even less likely with two or more doses.

The time-matched cohort study by Kiera Murison and colleagues from the University of Toronto, which included information on more than 13,600 women from Ontario's Case and Contact Management database, is unique because each [pregnant woman](#) affected by COVID-19 was compared to five non-pregnant women of reproductive age with COVID-19, matched by test date of positive SARS-CoV-2 infection.

The researchers say that the findings emphasize the importance of pregnant women getting vaccinated against COVID-19.

Pregnancy is associated with increased vulnerability to severe outcomes from [infectious diseases](#), both for the mother and developing infant. The COVID-19 pandemic may have important health consequences for pregnant women, who may also be more reluctant than non-pregnant people to accept vaccination.

To estimate the degree to which increased severity of COVID-19 outcomes can be attributed to pregnancy, researchers analyzed data from a population-based SARS-CoV-2 case file from Ontario between 16 March, 2020 and 4 January, 2022, which holds records for over 1 million confirmed COVID-19 cases within the Canadian province of

Ontario (population over 14 million).

Because the likelihood of vaccination and the dominant circulating viral strains changed over time, researchers conducted a time-matched [cohort study](#) evaluating the relative risk of severe illness in pregnant women with COVID-19 matched to COVID-19 infected women of childbearing age (10 to 49 years old) by date of laboratory-confirmed SARS-CoV-2.

Modeling was used to estimate the risk of severe COVID-19 outcomes (hospitalization and ICU admission) in pregnant women and non-pregnant controls after adjusting for age, other illnesses, healthcare worker status, vaccination, and infecting variant. Fortunately, there were less than five maternal COVID-19 deaths during the study, so the risk of dying during pregnancy could not be evaluated.

The analyses found that although pregnant women were only half as likely to have a SARS-CoV-2 infection relative to the [general population](#) (probably due to being more careful, social distancing and other measures), they were almost five times as likely to be admitted to hospital with COVID-19 compared to their non-pregnant peers, and were more than six times as likely to require treatment in [intensive care](#) (see figure and table in the notes to editors).

Further analyses comparing women with similar comorbidities, found that healthy pregnant women were more than five times as likely to be hospitalized as healthy non-pregnant women; while pregnant women with underlying illnesses were only twice as likely to be hospitalized as their non-pregnant peers with comorbidities.

"These findings suggest that in otherwise healthy women, pregnancy itself seems to be a factor that increases illness severity, while among [women](#) with comorbidities it becomes one of several factors that augment risk", says Murison. "Our findings underscore the need for

clear accurate information to reassure [pregnant women](#) and tackle concerns about COVID-19 vaccine safety."

This is an observational study, and as such can't establish cause. And the researchers acknowledge that they were unable to explore the relative virulence of the recent Omicron variant in pregnancy, or to rule out the possibility that other unmeasured factors, such as the presence of underlying medical conditions, may have affected the results.

Provided by European Society of Clinical Microbiology and Infectious Diseases

Citation: Pregnant women with COVID-19 face greater risk of hospitalization and ICU admission, strengthening case for vaccination (2022, April 25) retrieved 27 April 2024 from <https://medicalxpress.com/news/2022-04-pregnant-women-covid-greater-hospitalization.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.