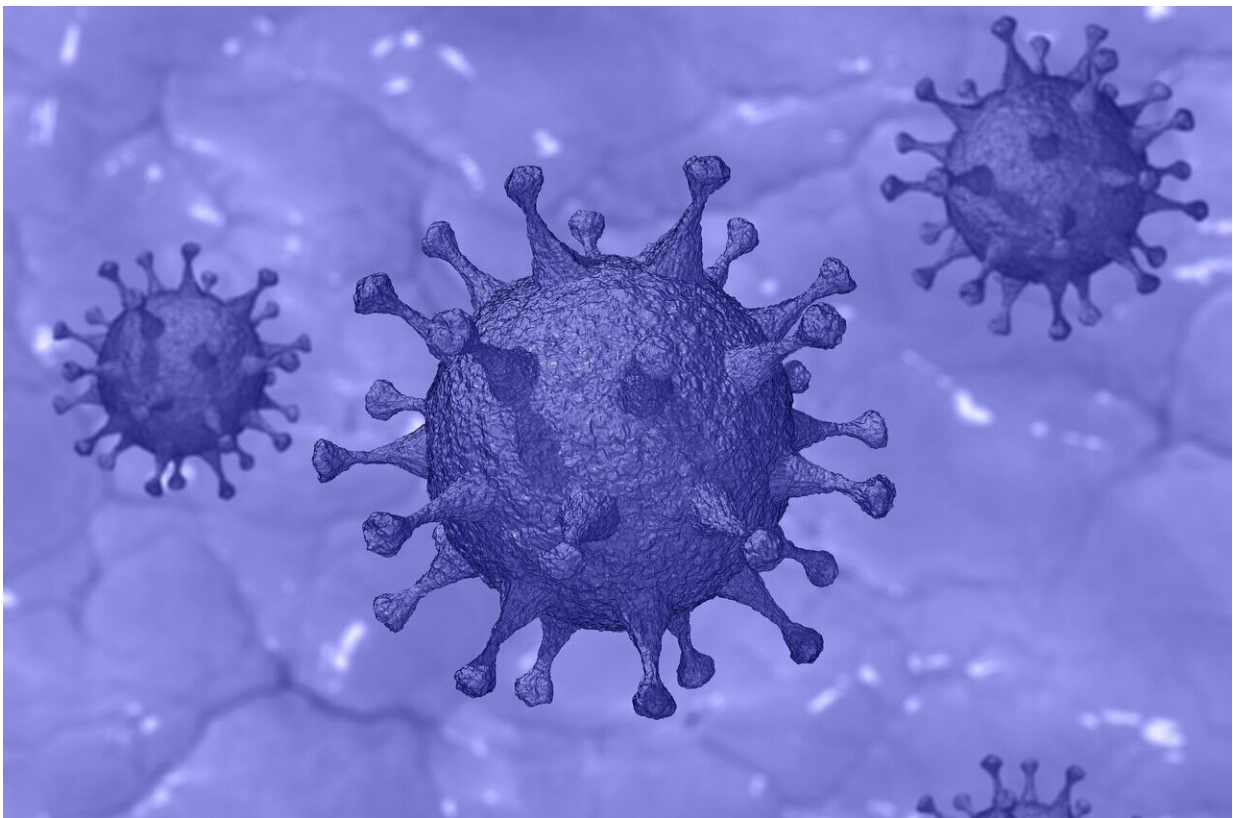


Vaccination provides protection against increased risk of pregnancy complications due to COVID-19 omicron variant

January 19 2023



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The global network led by the Oxford Maternal and Perinatal Health Institute (OMPHI) at the University of Oxford has published in the

journal *Lancet* the results of the '2022 INTERCOVID Study' conducted in 41 hospitals across 18 countries, including Ann & Robert H. Lurie Children's Hospital of Chicago.

To evaluate the impact of the COVID-19 omicron variant on maternal and neonatal outcomes the researchers studied 1,545 pregnant women diagnosed with the variant and 3,073 non-diagnosed, concomitant pregnant women as controls. The study was conducted between November 27, 2021, and June 30, 2022, during which time omicron was the variant of concern. Vaccine effectiveness against the variant was also assessed.

COVID-19 omicron variant during pregnancy was associated with increased risks of maternal morbidity, severe pregnancy complications, and hospital admission, especially among symptomatic and unvaccinated women. In particular, the risk of preeclampsia was increased among women with [severe symptoms](#). Obese/overweight women with severe symptoms were at the highest risk for maternal morbidity and severe complications.

Vaccinated women were well protected against severe COVID-19 symptoms and complications and had a very low risk of admission to an intensive care unit. Prevention of severe COVID-19 symptoms and complications requires women to be completely vaccinated, preferably with a booster dose as well.

In the study, mRNA vaccines were most effective in preventing severe COVID-19 symptoms and complications, although viral vector vaccines with a booster also provided adequate protection—for at least 10 months after the last dose for both mRNA vaccines and viral vector vaccines with a booster.

José Villar, Professor of Perinatal Medicine at the University of Oxford,

who co-led INTERCOVID 2022, says, "We have provided robust, evidence-based information on the increased risk of the COVID-19 omicron variant during pregnancy for severe maternal complications among symptomatic and unvaccinated women. Of concern is that severe symptoms of the disease occurred in 4% to 7% of unvaccinated women diagnosed with the COVID-19 omicron variant during pregnancy.

The study clearly indicates the need for a complete vaccination course during pregnancy, preferably with a booster, to provide protection for at least 10 months after the last dose. Antenatal services worldwide should strive to include vaccination against COVID-19 in the routine care of pregnant women."

Aris Papageorghiou, Professor of Fetal Medicine, University of Oxford, who co-led INTERCOVID 2022, says, "Although the omicron variant may be less harmful than previous variants in the general population, the large proportion of unvaccinated pregnant women worldwide are still at major risk. As it is impossible to predict who will develop severe symptoms or complications, universal complete vaccination is required. Unfortunately, full vaccination coverage among pregnant [women](#) is still inadequate even in developed countries."

Stephen Kennedy, Professor of Reproductive Medicine, University of Oxford, who co-led INTERCOVID 2022, says, "The present study is a shining example of how well-coordinated, multi-national, [collaborative research](#) can, in a very short time, provide robust evidence to improve the health of mothers and babies worldwide. The findings from this study and our previous INTERCOVID studies (see below) have contributed to changes in clinical practice and public health policy recommending vaccination for all [pregnant women](#). We hope our work will help to negate the considerable misinformation circulating regarding the pandemic and effectiveness of vaccines."

Jagjit Teji, neonatologist and site Principal Investigator at Lurie Children's says, "This study provides robust evidence that vaccination against COVID omicron [variant](#) provides protection for mothers and babies."

Lurie Children's study participants were recruited from Northwestern Medicine Huntley Hospital's Maternal, Newborn and Intermediate Care Nursery areas, where Lurie Children's neonatologists provide coverage.

More information: Jose Villar et al, Pregnancy outcomes and vaccine effectiveness during the period of omicron as the variant of concern, INTERCOVID-2022: a multinational, observational study, *The Lancet* (2023). [DOI: 10.1016/S0140-6736\(22\)02467-9](https://doi.org/10.1016/S0140-6736(22)02467-9)

Provided by Ann & Robert H. Lurie Children's Hospital of Chicago

Citation: Vaccination provides protection against increased risk of pregnancy complications due to COVID-19 omicron variant (2023, January 19) retrieved 30 March 2023 from <https://medicalxpress.com/news/2023-01-vaccination-pregnancy-complications-due-covid-.html>

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