SAFETY OF COVID-19 VACCINES IN PREGNANCY

A Canadian National Vaccine Safety (CANVAS) Network Study

WHAT YOU NEED TO KNOW

Overall, mRNA vaccines are safe in pregnancy. Vaccinations do not increase the risk of miscarriages or other pregnancy complications.

Both healthcare providers and pregnant people should be aware of more common symptoms pregnant people may experience after vaccination, including redness/pain at the injection site, fatigue, muscle aches, and headaches.

WHAT DID WE DO?

The Canadian National Vaccine Safety (CANVAS) Network is a national research platform that is monitoring the safety of COVID-19 vaccines in Canada. At the time of this study, over 700,000 total participants and 5,500 pregnant individuals had enrolled from seven provinces and territories across Canada.

Looking at female participants of reproductive age, we compared how pregnant people reacted to their first and second dose of the COVID-19 vaccine with unvaccinated pregnant people and vaccinated non-pregnant people.

WHY DID WE DO THE RESEARCH?

COVID-19 infection disproportionately affects pregnant people. They are at a higher risk of severe disease, hospitalization, ICU admission, and death. COVID-19 infection can also cause poor pregnancy outcomes, such as preterm birth and impaired fetal growth.

Experts recommended COVID-19 vaccines in pregnancy based on smaller studies and several decades of using vaccines in pregnancy. However, this study helps us better understand the vaccines' safety by looking at changes to health after vaccination for a large number of pregnant people and comparing that to similar vaccinated and unvaccinated groups.

WHAT DID WE LEARN?

- **1. Between vaccinated groups**: Pregnant people had **fewer symptoms** that prevented daily activities, work or required a medical visit than non-pregnant people.
- 2. Between pregnant groups: There was no difference in hospitalization or pregnancy-related complications.
- **3. Moderna vaccine:** After the second dose, vaccinated pregnant people reported **more symptoms** than unvaccinated pregnant people, but reported **similar symptoms** to vaccinated non-pregnant people. After the second dose, vaccinated pregnant people and unvaccinated pregnant people were **more likely to seek care** for these symptoms than vaccinated non-pregnant people.

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