

# Evaluation of safety concerns for COVID-19 immunization of pregnant women: A systematic review of emerging evidence

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## Abstract

**Background:** There is an urgent need to review the status of COVID-19 vaccine immunization in pregnant women globally so that the adverse outcomes may be prevented. **Objective:** To evaluate the probable outcome of COVID-19 vaccination in pregnant women. **Search strategy:** An electronic search was conducted over the period of 3 months (June 15-August 15, 2021). **Selection criteria:** The original studies evaluating safety concerns in pregnant women for COVID-19 vaccination were included. **Data collection and analysis:** Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2009 guidelines were used for the collection of the data and reporting of the findings. The inclusion and exclusion criteria for the studies were determined based on 'PICO principle' (Population, Intervention, Comparator, and Outcome, Study design. Risk of bias assessment was done using National Institute of Health (NIH) tool for systematic reviews. **Main results:** COVID-19 vaccination in pregnant women was not associated with increased adverse effects or complications to the mother as well as developing fetus or newborn compared to non-vaccinated pregnant women. Vaccinated pregnant women showed a robust immune response against COVID-19 infection. **Conclusions:** COVID-19 vaccination during pregnancy causes no significant health risks for the mother or developing fetus or newborn.

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