

STRONG CHILDREN'S RESEARCH CENTER

Summer Research Scholar

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ABSTRACT

Title: *Changes in COVID-19 Workflow Practices in Obstetric Practices: A quality improvement study*

Background: COVID-19 is a serious infection, especially in immunocompromised individuals including pregnant patients.¹ The approved COVID-19 vaccine for pregnant patients increases maternal IgG, providing immunity to the infants.² Despite its efficacy, the vaccination rate of pregnant women is 73%, as of May 2024, with 13.3% of pregnant women receiving the updated 2023-2024 COVID-19 vaccine.³ Barriers to COVID-19 vaccination for pregnant women include patient, provider, and system wide issues.

VAXMom COVID is a cluster randomized trial study aimed at increasing maternal COVID-19 immunization rates by disseminated COVID-19 teaching modules at three medical networks, University of Rochester Medical Center (URMC), Rochester Regional Health (RRH), and University of California Los Angeles (UCLA).

Objective: To implement COVID-19 teaching modules in participating OB-GYN sites and determine changes in workflow practices, focusing on vaccine communication, strategies for increasing immunization, and putting those strategies in action.

Methods: Baseline phase consisted of determining vaccination rates of pregnant women who gave live births at sites in three practice networks, New York URMC(7), New York RRH(13), and California UCLA(7). Following the conclusion of the baseline phase, the intervention phase utilized a randomized control trial (RCT) allocating practices to either control(10) or intervention(14). The intervention consisted of modules aimed at educating the importance of COVID-19 vaccination during pregnancy, vaccine communication, and optimization of workflow. At the conclusion of the intervention, a REDCap survey was administered, examining vaccine recommendations, implementation of module teachings, and workflow practices. Open ended questions related to COVID-19 vaccine recommendations were analyzed qualitatively, using thematic analysis. Quantitative data was analyzed through difference in differences between control and intervention survey responses.

Results: The post intervention survey was sent to 199 individuals (all providers and 1 nurse in each practice) with an overall completion rate of 44%. We found that online training in COVID-19 vaccine communication and strategies for increasing COVID immunization overall, did not significantly change workflow practices in obstetric sites. However, more intervention sites offered the vaccine on site and were aware of someone working to improve immunization rates in their office. For the qualitative data, participants were asked open ended questions related to recommendations on COVID-19 vaccine and addressing vaccine refusal. Both intervention and control groups were more likely to convey the risks of severe COVID-19 in pregnancy, explain how the vaccine reduces risk of serious infection, and provide recommendations. However, more

in the intervention group emphasized vaccine safety in pregnancy. In addressing vaccine refusal, both groups emphasized one on one conversations and research, however the control group was more likely to reinforce vaccine safety/efficacy.

Conclusion: Changing perceptions and workflow practices about COVID-19 vaccine is challenging for providers and nurses due to factors such as strong patient hesitancy, waning interest in COVID-19 infection, and preexisting provider workload. Next steps are to compare COVID-19 immunization rates in practices pre and post intervention and determine if online training modules improved maternal COVID-19 immunization rates.

References:

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2. Lipkind HS, Vazquez-Benitez G, DeSilva M, et al. Receipt of COVID-19 Vaccine During Pregnancy and Preterm or Small-for-Gestational-Age at Birth - Eight Integrated Health Care Organizations, United States, December 15, 2020-July 22, 2021. *MMWR Morb Mortal Wkly Rep*. 2022;71(1):26-30.
3. Weekly COVID-19 Vaccination Dashboard. Centers for Disease Control and Prevention. <https://www.cdc.gov/vaccines/imzmanagers/coverage/covidvaxview/interactive/vaccination-dashboard.html>. Accessed Jul 16, 2024.