



Correspondence

JMR 2023; 9(5):104-105
September- October
ISSN:2395-7565
© 2023, All rights reserved
www.medicinarticle.com
Received:26-08-2023
Accepted:29-09-2023
DOI: 10.31254/jmr.2023.9501

Assessing Influenza Vaccine Adherence Among Pregnant Women: A Health Center-Based Study in Qatar

Misbah ul Haque¹, Muhammad Arshad Rafique¹, Amine Ghram²

¹ Consultant Family Medicine, Primary Health Care Corporation (PHCC), Doha, Qatar

² Department of Cardiac Rehabilitation, Hamad Medical Corporation, Doha, Qatar

Abstract

The World Health Organization (WHO) issues recommendations regarding influenza vaccine utilization, with a focus on safeguarding the most vulnerable and high-risk segments of the population against severe disease [1]. WHO's policy report on influenza vaccine, published in 2022, specifically designates pregnant women as a priority group for nations expanding their influenza vaccination initiatives, underlining the vaccine's capacity to confer protection to both mothers and their newborns for up to six months postpartum, shielding them from influenza infections [2]. Extensive evidence attests to the safety of administering influenza vaccines to pregnant women, with studies revealing a substantial reduction in laboratory-confirmed influenza cases, ranging from 35% to 70% for mothers and 28% to 61% for infants under six months of age [3,5]. The Ministry of Public Health (MOPH) in Qatar recommends that pregnant women receive a single dose of the influenza vaccine during any trimester of pregnancy, and this guidance is implemented across Antenatal clinics, including the Rawadat al Khail Health Center. Adherence to both local and WHO guidelines in clinical practice is of paramount importance. Thus, this study endeavors to ascertain the degree of adherence exhibited by healthcare professionals and pregnant women to the recommendations pertaining to influenza vaccination during pregnancy.

Keywords: Pregnant Women, Influenza Vaccine, Qatar.

BACKGROUND AND AIM

The World Health Organization (WHO) recommends that individuals in high-risk groups, particularly pregnant women, receive the flu vaccine during the influenza season. However, the adoption of influenza vaccination among pregnant women remains low.

The primary aim of this research was to evaluate the extant practices concerning influenza vaccination for pregnant women at the primary healthcare level in Qatar. Pregnant women are recommended to receive a singular dose during the flu season. Additionally, this study sought to identify strategic approaches to enhance the vaccine adoption and improve overall coverage in this population.

INTRODUCTION

Influenza, a sudden-onset respiratory ailment resulting from the Myxovirus types A and B, afflicts an estimated 3-5 million individuals across the globe each year and leads to fatalities ranging from 290,000 to 650,000 annually [1].

The World Health Organization (WHO) places a high priority on influenza vaccination, particularly for individuals at elevated risk, such as pregnant women [1]. In its 2022 policy report on influenza vaccines, WHO emphasizes pregnant women as a key target group for countries looking to implement or expand their influenza vaccination programs [1]. This isn't just about safeguarding the well-being of expectant mothers; it also extends protection to newborns for as long as six months after birth [2].

The administration of influenza vaccines during pregnancy has proven to be a safe practice, with documented reductions of 35% to 70% in laboratory-confirmed influenza cases among mothers and 28% to 61% in infants under six months of age [3-5]. Consequently, this study aims to evaluate the extent to which pregnant women in Antenatal clinics comply with the recommendations for flu vaccination. According to the Ministry of Public Health (MOPH), it is strongly advised that pregnant women receive a single dose of the flu vaccine at any trimester of their pregnancy [6]. To facilitate adherence to these guidelines, flu vaccines are readily accessible at Antenatal clinics.

*Corresponding author:

Dr. Misbah ul Haque

Consultant Family Medicine,
Primary Health Care
Corporation (PHCC), Doha,
Qatar
Email: mhaque@phcc.gov.qa

The primary objective of this research is to assess the adherence levels among pregnant women and healthcare professionals with respect to both local and WHO recommendations regarding flu vaccination. The study endeavors to shed light on current practices and the obstacles encountered, offering valuable insights into areas where enhancements could be implemented to boost the uptake of flu vaccines within this vulnerable demographic. By gaining a comprehensive understanding of prevailing practices and challenges, the goal is to increase the overall coverage of flu vaccinations, thereby safeguarding the health of pregnant women and their newborns.

SETTING

The primary objective of this study is to assess the extent to which pregnant women and healthcare professionals at a primary healthcare center's Antenatal Clinic (ANC) adhere to flu vaccination guidelines. This research is driven by the overarching goal of enhancing health outcomes for both pregnant individuals and their neonates. To achieve this aim, the study will scrutinize the present rates of flu vaccine adoption within this particularly vulnerable demographic. In addition, the investigation will delve into the existing challenges and practices, seeking to uncover potential avenues for enhancement and offering recommendations to augment flu vaccine uptake at the ANC. It is noteworthy that the ANC delivers comprehensive prenatal care services, inclusive of the opportunity for discussions concerning the flu vaccine and its administration, all under the supervision of specialized medical practitioners.

METHODOLOGY

Data source and study cohort

The current investigation was conducted within the premises of a Primary Healthcare center in Doha, Qatar that caters to a registered populace totaling 126,000 residents within the designated area. The study employed a retrospective approach, involving the examination of interconnected electronic health records pertaining to pregnant women who successfully delivered healthy live infants during the period spanning from July 1st to September 20th, 2022.

A meticulous manual audit of the records was conducted to procure pertinent data pertaining to the recommendation, prescription, acceptance, and rationale behind refusal or non-acceptance of flu vaccines. An audit tool built within the Excel platform was employed to collate details encompassing patient identification particulars, age, nationality, the healthcare center involved, issuance of flu vaccine prescription, actual vaccination administration, as well as documentation capturing any concerns or elucidation of reasons for vaccine declination.

The process of data analysis was executed manually, with the assimilation of data into pre-structured templates within Microsoft Excel and Microsoft Word. Affirmative findings, such as the placement of an order for a flu vaccine, were documented as "Yes," while negative findings, encompassing instances where there was an absence of documented flu vaccine orders, were recorded as "No." Duplicates were categorized as "NA." The data was then subjected to analysis and subsequently presented through the medium of tables and graphical representations.

In relation to Influenza Vaccine, a meticulous examination of the medical records of each pregnant participant in the study was conducted to ascertain their vaccination status encompassing any trimester during pregnancy. The principal objective of this study was to gauge the rate of adherence to flu vaccine uptake among the cohort of pregnant women.

RESULTS

The following figures were extracted after the analysis of the data.

Total cases analyzed:	100
Flu vaccine order present:	15
Flu vaccine received:	11
Flu vaccine not received:	89

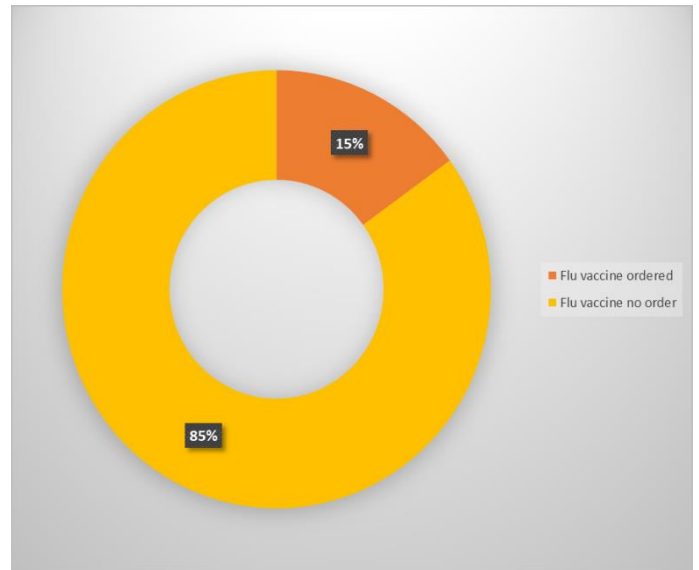


Figure 1: Flu vaccine Orders

Figure 1 above shows that 15% of patients had orders for flu vaccine during the duration of pregnancy.

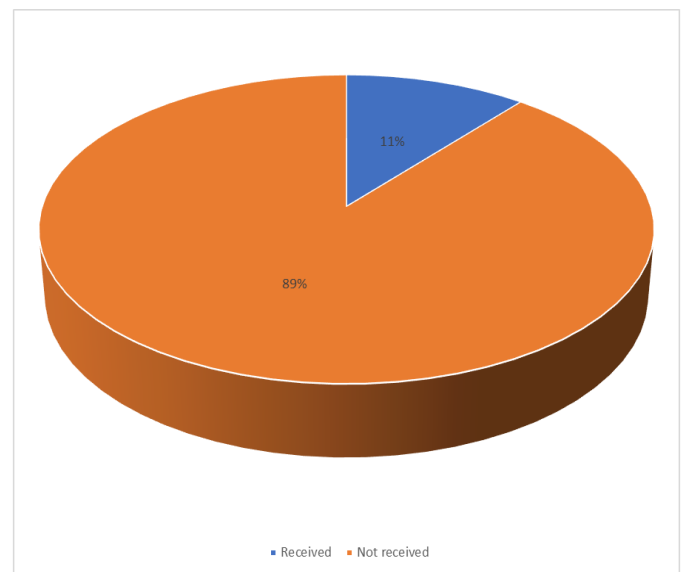


Figure 2: Flu vaccine received

No evidence of vaccine refusal/concerns was documented for pregnant women who did not receive the vaccine.

The average age of the study participants was 29 years. Within the cohort, 3% of pregnant individuals were identified as healthcare professionals who regularly received the flu vaccine annually. Furthermore, 4% of the participants were homemakers, 2% were engaged in secretarial positions, and an additional 2% were employed in roles related to the hospitality sector.

Supplementary data revealed a breakdown of vaccine recipients by nationality, indicating that out of the 11 recipients, 6 (54%) were of Indian nationality, 3 (27%) were of Philippine nationality, while one

(9%) was of Egyptian nationality, and one (9%) belonged to Eritrean nationality.

CONCLUSION

The current study underscores a notable deficiency in flu vaccine uptake, with a mere 11% compliance observed among pregnant women attending antenatal visits at a local primary care health center. This figure stands in stark contrast to the significantly higher vaccination rates documented in other nations, such as the United States, where as many as 49.6% of pregnant women received the flu vaccine during the 2021-22 season [7]. Within the European Union (EU), where several member states have robust flu vaccination programs, the average rates among pregnant women exhibit substantial variability, ranging from a minimum of 0.3% to a maximum of 56.1% [8]. Despite these global disparities and the generally unsatisfactory flu vaccine uptake rates, there remains a pressing need for targeted and quantifiable measures aimed at improvement.

Furthermore, this investigation unveils a conspicuous dearth of educational efforts, prescription practices, and documentation concerning concerns related to flu vaccination among pregnant women within the Antenatal clinics, as overseen by healthcare professionals. Alarmingly, merely 3% of patients within the study had documented instances of receiving recommendations for the flu vaccine. Enhancing the promotion of flu vaccines by healthcare professionals and augmenting health education to address apprehensions associated with vaccine administration during pregnancy and the severity of influenza infections is of paramount importance. In conclusion, it is imperative to undertake further large-scale studies within the region to discern the underlying factors impeding the enhanced adoption of influenza vaccines during pregnancy.

Conflicts of Interest

The authors declare no conflicts of interest.

ORCID ID

Dr. Misbah ul Haque: <https://orcid.org/0000-0001-7588-4128>

Dr. M Arshad: <https://orcid.org/0009-0000-4984-8772>

Dr. Amine Ghram: <https://orcid.org/0000-0002-2851-0753>

REFERENCES

1. Vaccines against influenza: WHO position paper – May 2022. *Weekly Epidemiological Record*, 2022, vol. 97, 19. <https://www.who.int/publications/i/item/who-wer9719>
2. Kathleen Maletic Neuzil, George W. Reed, Edward F. Mitchel, Lone Simonsen, Marie R. Griffin, Impact of Influenza on Acute Cardiopulmonary Hospitalizations in Pregnant Women, *American Journal of Epidemiology*, Volume 148, Issue 11, 1 December 1998, Pages 1094–1102. <https://doi.org/10.1093/oxfordjournals.aje.a009587>
3. Madhi SA, Cutland CL, Kuwanda L, Weinberg A, Hugo A, Jones S, Adrian PV, van Niekerk N, Treurnicht F, Ortiz JR, Venter M, Violari A, Neuzil KM, Simões EA, Klugman KP, Nunes MC; Maternal Flu Trial (Matflu) Team. Influenza vaccination of pregnant women and protection of their infants. *N Engl J Med*. 2014 Sep 4;371(10):918-31. <https://doi.org/10.1056/nejmoa1401480>
4. Steinhoff MC, Omer SB, Roy E, El Arifeen S, Raqib R, Dodd C, et al. Neonatal outcomes after influenza immunization during pregnancy: a randomized controlled trial. *CMAJ: Canadian Medical Association journal = journal de l'Association medicale canadienne*. 2012; 184:645–53. <https://doi.org/10.1503/cmaj.110754>
5. Zaman K, Roy E, Arifeen SE, Rahman M, Raqib R, Wilson E, et al. Effectiveness of maternal influenza immunization in mothers and infants. *The New England journal of medicine*. 2008; 359:1555–64. (US); 1993. PMID: 25144105. <https://doi.org/10.1056/nejmoa0708630>
6. National Clinical Guidelines Antenatal, Intrapartum and Postnatal care in low-risk pregnancy: Ministry of Public Health Qatar.

<https://www.moph.gov.qa/english/OurServices/eservices/Pages/Clinical-Guidelines.aspx>

7. Flu, Tdap, and COVID-19 Vaccination Coverage Among Pregnant Women – United States, April 2022. <https://www.cdc.gov/flu/fluview/pregnant-women-apr2022.htm>
8. Seasonal influenza vaccination in Europe – Vaccination recommendations and coverage rates for eight influenza seasons (2007–2008 to 2014–2015) [Internet]. European Centre for Disease Prevention and Control; 2017 Jul. <https://www.ecdc.europa.eu/en/publications-data/seasonal-influenza-vaccination-europe-vaccination-recommendations-and-coverage-2007-2015>