



---

## EXPERTS VIEW TO IMPROVE MATERNAL INFLUENZA IMMUNISATION IN INDIA

Patanwal Swati Ompal<sup>1</sup>, Dr. Virendra Singh Choudhary<sup>2</sup>

Department of Nursing

<sup>1,2</sup>Shri Venkateshwara University, Gajraula (Uttar Pradesh)

### ABSTRACT

As a result, India's immunisation rates for pregnant women are extremely low. An expert panel of obstetric–gynaecologists and paediatricians in India concluded that influenza vaccination during pregnancy is advantageous to both mother and child. After reviewing influenza infection in pregnancy and new-borns, it was agreed to focus on the maternal vaccination practises in India, including the degree of communication between obstetric–gynaecologists and paediatricians and opinions on best scheduling for immunisation. However, in India, antenatal care does not include the influenza vaccine in any trimester of pregnancy despite clinical trials showing it to be beneficial. Obstetricians aren't familiar with clinical guidelines for maternal influenza vaccination, which is a problem. Obstetricians and other maternal healthcare practitioners can be informed on this. This high-risk group should be vaccinated against severe influenza disease in all available ways because of India's changing influenza seasons and frequent vaccine shortages, as well as because influenza immunisation is possible at any stage of pregnancy.

**KEYWORDS:**Expert testimony; India; influenza; influenza vaccination; maternal vaccination; pregnant women; timing.

### 1. Introduction

Pregnant women should be vaccinated against influenza at any stage of pregnancy since 2012, according to the “World Health Organization”[1]. Along with other international and national health organisations, these recommendations from the priority group are based on the fear of serious influenza diseases in this population. In pregnant women and new-borns, when the risk of influenza is greatest, flu vaccination is safe and effective in preventing the disease[2]. Densely populated countries, however, have substantially lower vaccination rates for pregnant women than their national targets.



---

There is a high incidence of influenza-related problems in pregnancy in India[3]. When compared to non-pregnant women, “influenza A/H1N1pdm09” infection increases maternal mortality by 25–75 percent[4]. It is also associated with a worsening of the mother's influenza illness, which increased the fetal death rate by 5.5–33 percent; because of their high risk for influenza infection, pregnant women in India are given special attention when it comes to immunisation[5]. Vaccinations for pregnant women in India range from 0.0% to 12.8%. Poor practices by healthcare providers (HCPs) and misperceptions about the vaccine's safety and efficacy are major obstacles to vaccination adoption. Many medical professional organisations in India have issued clinical guidelines on influenza vaccination during pregnancy, but none of them investigate the reasons for low maternal immunisation rates in this country. When 11 obstetricians and pediatricians from different parts of India met in Mumbai in February 2019 to discuss this issue, they discussed their concerns about whether or not influenza vaccination during pregnancy could be beneficial and if it could increase vaccination coverage in the country. They also discussed the potential benefits of influenza vaccination during pregnancy, including the potential for increased coverage. When there was disagreement, a consensus was created based on the opinions of the majority of those who took part in the study.

## **2. Discussion on vaccination by experts**

According to the panel's recommendations, which are listed below, there is a need to enhance awareness and increase immunisation rates among pregnant women.

### ***2.1. Importance of vaccination by specialists during pregnancy***

During the expert panel's clinical experience with influenza in pregnancy, severe morbidity and prolonged intensive care stays as well as advanced medical therapies highlighted the danger of the infection[6]The 2009 influenza “A/H1N1pdm09” pandemic collected a significant amount of clinical data. Some experts were prompted to urge that pregnant women be informed about influenza vaccination as part of regular prenatal care after cases of severe influenza during pregnancy[7]

They did agree on one thing: It was preferable for health care providers to be motivated by maternal

---



---

influenza before they were confronted with a severe case of it themselves. HCPs should be proactive in suggesting influenza vaccine to their pregnant patients, according to several studies[8]. In light of India's inconsistent vaccination regimens, the expert panel agreed that practitioners need to be more aware of the seriousness of influenza during pregnant. FOGSI and API can provide more support for this [9].n India, medical professional organisations such as FOGSI and API can provide additional support for this. With breakthroughs in diagnostics and the prevalence of influenza in infants less than six months, the expert panel stated that they have encountered cases of probable viral disease on a frequent basis in this age group. Because of immaturity of the immune system, these cases of severe influenza in early infancy have been described in different countries[2]. When infants are too young to be vaccinated, they must rely on the mother's antibodies to protect them.

### ***2.2. Safety measures taken to immunize infectious diseases during pregnancy***

Flu vaccination during pregnancy did not raise the risk of bad pregnancy outcomes, according to various assessments of adverse event data. In addition, the “American College of Obstetricians and Gynecologists (ACOG)” recommends that influenza vaccine be given at the same time as tetanus vaccine if the timings coincide [10]. While there are insufficient long-term safety data on “quadrivalent vaccine (QIV)”, the expert panel says that surveillance data is still being analysed and recent reports indicate that there are no adverse concerns. When it comes to influenza vaccinations in the United States, the majority of them are QIV, according to the “Advisory Committee of Immunization practices” latest guidelines for the control of seasonal influenza.

### ***2.3. Ideal time for influenza vaccination during pregnancy***

Members of an expert panel performed a variety of scheduling strategies because the optimal timing for maternal influenza immunisation has not yet been determined by the experts. Largely because the recommended gestational ages for immunizations vary from one source to the next if influenza risk is high, the FOGSI recommends folic immunisation in pregnancy, but it can be given earlier if necessary. When it comes to pregnancy, both the “American College of Obstetricians and Gynecologists



---

(ACOG)”and the Indian “Chest Society recommend vaccination”that influenza vaccine in any trimester protected mother and child up to 6 months of age without significant maternal adverse effects. Due to unfounded safety worries, clinicians were wary of administering influenza vaccines during the first trimester[11]

Fertility rates are relatively high in the first trimester. In an Indian study of 800 women, there was a 17.5% chance of spontaneous abortion occurring before the first trimester of pregnancy had begun. In the first trimester, patients may assume that vaccines can cause miscarriage, according to doctors. Because it takes roughly two weeks for antibodies to develop up in the body and protect against influenza infection, vaccines should be considered as early as feasible, according to the panel[12]. Some of the panelists also observed that misperceptions can be addressed with the right kind of counselling.

All of these concerns were taken into account by the expert panel, which recommended that vaccinations be given after 12 weeks of gestation. It is important for HCPs to begin addressing influenza vaccination with their patients in the first trimester in order to debunk any misconceptions that may exist. As a result, it is important to consider when to provide the vaccine to pregnant women. According to a study of seasonal influenza outbreaks from 2010 to 2017, India experienced two significant peaks separated by several months. local epidemiology data for influenza seasonality should also be examined, since seasonality in India follows a Southern Hemisphere trend[4].

#### ***2.4.Pediatricians and obstetric–gynecologists debate over the issue***

Children's doctors and obstetric-gynecologists rarely meet in India to discuss influenza during pregnancy and immunisation recommendations. Everyone agreed that clinicians must lead the charge in raising awareness amongst pregnant women about the risks of influenza in young children and encourage them tell pregnant women about influenza vaccination's benefits.



### ***2.5. Effect of vaccine supply and government policies***

Anti-flu vaccines are routinely administered in response to epidemics across India. This can affect the ability to administer vaccinations year-round. Due to the fact that this isn't a regular practice for Indian obstetricians, they may not be aware of the requirements for cold chain storage of vaccines. General practitioners are more likely than obstetricians to recommend influenza immunisation (GP). Vaccines aren't usually given to patients by their doctors. Doctors who treat pregnant women should provide vaccines to their patients instead of referring them to a general practitioner, the panel concluded. When making policy decisions, the government considers the suggestions of medical associations. Medical guidelines and recommendations must, therefore, be in accord with current clinical results.

### **3. Expert view**

There is a growing body of evidence supporting the necessity for maternal influenza immunisation, and this approach has an excellent safety record. A number of factors could be at play, according to experts, as to why Indian obstetric-gynecologists may not recognise the importance of maternal vaccination. In accordance with the findings of the expert panel and published research[13]. An inadequate awareness of influenza infection in pregnant women and young children, as well as a lack of recognition of the need for influenza vaccine, are common among obstetricians. On the other hand, due to non-uniform advice from different medical professional organisations, obstetricians may be unaware of the ideal time of immunisation. Most obstetric-gynecologists in India do not routinely administer vaccinations, in contrast to pediatricians. Due to this, it's possible that some of them may lack expertise and trust in some areas of vaccination such as patient counselling, consenting to vaccination, and cold-chain requirements. Programs that enable better contact between pediatricians and obstetric-gynecologists may help enhance maternal influenza vaccination acceptance. We should expect to see more detailed communication of the rules as well as essays and editorials written by physicians for medical journals. All stakeholders in maternal care, including obstetricians, general practitioners, medical students, and newly certified health care professionals (HCPs), can benefit from

---



---

these resources. There were other misconceptions concerning maternal influenza vaccination that the expert panel noted. For example, patients believed that immunization may cause miscarriage, that the vaccine was ineffective, and that the condition was not life-threatening. There is a possibility that pregnant women are not fully informed about the benefits and risks of the influenza vaccine. Women who are pregnant should be fully informed about the hazards of the flu and how vaccines protect their unborn children while they are being counselled. Reluctance to get vaccinated can be lessened by dialogue-based interventions such as social media and mainstream media[14].

#### 4. Conclusion

This is because pregnant women are at an enhanced risk of developing severe influenza. Therefore, influenza vaccine should be included in prenatal care. A collaborative effort between OBGYNs and other healthcare professionals, medical professional organizations, and public health institutions is needed for India to become more aware of the availability of maternal influenza vaccination in the next five to ten years. Vaccines should be given whenever possible, as clinical evidence suggests that they can be given at any stage of pregnancy.

#### Reference

- [1] P. Buchy and S. Badur.(2020).Who and when to vaccinate against influenza.*Int. J. Infect. Dis.*, vol. 93, pp. 375–387.
- [2] S. Esposito, G. Dal Canto, M. R. Caramia, V. Fainardi, G. Pisi, and N. Principi.(2021). Complications in community acquired pneumonia: magnitude of problem, risk factors and management in pediatric age.*Expert Rev. Anti. Infect. Ther.*, no. just-accepted.
- [3] K. Abraham *et al.*(2021). Maternal and perinatal outcomes of influenza in pregnancy after treatment with oseltamivir.*J. Glob. Infect. Dis.*, vol. 13, no. 1, p. 20.
- [4] N. Krenitsky *et al.*(2021).Hospital Admissions from the Emergency Department and Subsequent Critical Care Interventions for Influenza during Pregnancy.*Am. J. Perinatol.*
- [5] R. Dhar *et al.*(2020).Clinical practice guidelines 2019: Indian consensus-based recommendations on pneumococcal vaccination for adults.*Lung India Off. Organ Indian Chest*



---

*Soc.*, vol. 37, no. Suppl 1, p. S19.

- [6] J. R. Ortiz, J. A. Englund, and K. M. Neuzil.(2011).Influenza vaccine for pregnant women in resource-constrained countries: a review of the evidence to inform policy decisions.*Vaccine*, vol. 29, no. 27, pp. 4439–4452.
- [7] S. J. Sullivan, R. M. Jacobson, W. R. Dowdle, and G. A. Poland.(2009). H1N1 Influenza. in *Mayo Clinic Proceedings*, 2010, vol. 85, no. 1, pp. 64–76.
- [8] E. Kilich *et al.*(2020).Factors that influence vaccination decision-making among pregnant women: A systematic review and meta-analysis.*PLoS One*, vol. 15, no. 7, p. e0234827.
- [9] B. N. Purandare and J. M. D. S. Souza.(1962). Federation of Obstetric and Gynaecological Societies of India.Springer.
- [10] J. G. Donahue *et al.*(2019).Inactivated influenza vaccine and spontaneous abortion in the Vaccine Safety Datalink in 2012–13, 2013–14, and 2014–15.*Vaccine*, vol. 37, no. 44, pp. 6673–6681.
- [11] M. Singh, T. Tanvir, D. Nagoji, A. Madan, S. Gatterm, and H. Singh.(2019).Influenza vaccine: A viable option to protect pregnant women and infants from seasonal flu: A retrospective hospital-based study in India.*Int. J. Clin. Pract.*, vol. 73, no. 7, p. e13361.
- [12] Ac. Gynecologists.(2013).ACOG Committee opinion no. 549: obesity in pregnancy.*Obs. Gynecol*, vol. 121, no. 5.
- [13] L. Sukumaran *et al.*(2015). Safety of tetanus, diphtheria, and acellular pertussis and influenza vaccinations in pregnancy.*Obstet. Gynecol.*, vol. 126, no. 5, p. 1069.
- [14] J. R. Ortiz.(2018).Implementation of maternal influenza immunization programs.*Vaccine*, vol. 36, no. 25, p. 3571.